Cumulative Subject Index, Volumes 1–6

A 3-80. See Polystyrene A151. See Vinyltriethoxy silane α -Acetoxytoluene. See Benzyl acetate 2-AAF. See 2-Acetylaminofluorene α -Aminoisopropyl alcohol. See Monoisoprpanolamine α -Aminopyridine. See Aminopyridines α -Amylene. See 1-Pentene AAS. See Atomic absorption spectroscopy AAT. See o-Aminoazotoluene Abaphos. See Temephos 4-ABP. See 4-Aminobiphenvl Absorption atelectasis, 1:985 AC. See Allyl chloride AC92100. See Terbufos Acco Fast Red KB Base. See 5-Chloro-o-toluidine Aceanthrene. See 1,2-Dihydroaceanthrylene Acenaphthene, 5:384 chemical and physical properties, 5:384 production and use, 5:384 toxic effects, 5:384 Acephate, 4:1092 chemical and physical properties, 4:1093 exposure assessment, 4:1093–1094 guidelines of exposure, 4:1097 production and use, 4:1093 toxic effects experimental studies, 4:1094-1096 human experience, 4:1096-1097 Acetaldehyde, 3:655. See also Acetaldehyde butyl acetal; Paraldehyde chemical and physical properties, 3:655-662 exposure assessment air, 3:662 community methods, 3:662

workplace methods, 3:662 guidelines of exposure, 3:665 production and use, 1:214, 1:223, 1:224, 3:662 as respiratory irritants, 1:995 toxic effects, 3:663 experimental studies, 3:663-664 human experience, 3:664-665 Acetaldehyde butyl acetal, 3:721 chemical and physical properties, 3:721 Acetaldehyde diethyl acetal. See Acetals Acetaldehyde dimethyl acetal. See Dimethylacetal Acetaldehyde homopolymer. See Metaldehyde Acetaldehyde tetramer. See Metaldehyde Acetal homopolymer tensile impact, 4:982 Acetal resin. See Polyoxymethylene Acetals, 3:717-719, 3:720 physical and chemical properties of, 3:718t, 3:721 toxic effects of, 3:718t, 3:721 Acetamide, N,N-dimethyl-. See Dimethylacetamide 4-Acetamidobenzaldehyde. See p-Acetamidobenzaldehyde *p*-Acetamidobenzaldehyde, **3**:713 chemical and physical properties, 3:713 Acetamidofluorene. See 2-Acetylaminofluorene 2-Acetamidofluorene. See 2-Acetylaminofluorene Acetamidophos. See Acephate Acetamine Diazo Black RD. See 3,3'-Dimethoxybenzidine Acetamine Diazo Navy RD. See 3,3'-Dimethoxybenzidine 2-Acetaminofluorene. See 2-Acetylaminofluorene Acetate C-6, hexyl acetate (Nat. C-6 acetate). See Hexyl acetates Acetate cotton. See Cellulose acetate Acetate pear oil. See Isoamyl acetate Acetates, 4:190, 4:791t, 4:792t Aceteldehyde. See Acetaldehyde

Patty's Toxicology, Sixth Edition. Volume 6, Edited by Eula Bingham and Barbara Cohrssen. © 2012 John Wiley & Sons, Inc. Published 2012 by John Wiley & Sons, Inc.

Acetene. See Ethene Acethoin. See Acetoin Acetic acid, 3:477. See Isopropyl acetate; Thallium(I) acetate; Zinc acetate chemical and physical properties, 3:477 exposure assessment, 3:477 guidelines of exposure, 3:480 production and use, 3:477 toxic effects, 3:477 experimental studies, 3:477-479 human experience, 3:479-480 Acetic acid, allyl ester. See Allyl acetate Acetic acid n-amyl ester. See n-Amyl acetate Acetic acid benzyl ester. See Benzyl acetate Acetic acid, 2-butoxy ester. See sec-Butyl acetate Acetic acid t-butyl ester. See tert-Butyl acetate Acetic acid n-butyl ester. See Butyl acetate Acetic acid, butyl-, ethyl ester. See Ethyl caproate Acetic acid, dimethylamide. See Dimethylacetamide Acetic acid, 1,1-dimethylethyl ester. See tert-Butyl acetate Acetic acid ethenyl ester. See Ethenyl acetate Acetic acid ethylene ether. See Ethenyl acetate Acetic acid ethyl ester. See Ethyl acetate Acetic acid, hexyl ester. See Hexyl acetates Acetic acid n-hexyl ester. See Hexyl acetates Acetic acid, isoamyl ester. See Isoamyl acetate Acetic acid isobutyl ester. See Isobutyl acetate Acetic acid, isopentyl ester. See Isoamyl acetate Acetic acid, 3-methylbutyl ester. See Isoamyl acetate Acetic acid methyl ester. See Methyl acetate; Methyl acetoacetate Acetic acid 4-methyl-2-pentyl ester. See sec-Hexyl acetate Acetic acid 1-methylpropyl ester. See sec-Butyl acetate Acetic acid, *n*-pentyl ester. See *n*-Amyl acetate Acetic acid phenylmethyl ester. See Benzyl acetate Acetic acid 2-propoxyethyl ester. See Ethylene glycol mono-npropyl ether acetate Acetic acid propyl ester. See n-Propyl acetate Acetic acid, sec-butyl ester. See sec-Butyl acetate Acetic acid triethyl ester. See Triethyl orthoacetate Acetic acid vinyl ester. See Ethenyl acetate Acetic aldehyde. See Acetaldehyde Acetic ether. See Ethyl acetate Acetidin. See Ethyl acetate Acetin, acetin-mono. See Glyceryl monoacetate Acetin-di. See Glyceryl diacetate Acetins, 4:186 toxicity of, 4:188, 4:189 Acetin-tri. See Glyceryl triacetate Acetoacetic acid. See Methyl acetoacetate Acetoacetic acid, ethyl ester. See Ethyl acetoacetate Acetoacetic ester. See Ethyl acetoacetate Acetoacetone. See 2,4-Pentanedione Acetoaminofluorene. See 2-Acetylaminofluorene Acetoctan ethylnaty. See Ethyl acetoacetate Acetoglyceride. See Glyceryl monoacetate Acetoin chemical and physical properties, 5:138, 5:138t exposure assessment, 5:138 guidelines of exposure, 5:141

human experience, 5:140-141 physical and chemical properties of, 5:138t production and use, 5:138 toxic effects, 5:138-140 Acetone, 3:735 AEGL values for exposure durations, 3:747t chemical and physical properties, 3:736, 3:736t genotoxicity/carcinogenicity animal/in vitro data, 3:746 human data, 3:746 guidelines of exposure, 3:746-747 acute guidance values, 3:747 biological exposure limits, 3:747 occupational exposure limits, 3:746-747 reference dose, 3:747 physiological role, 3:736-737 reproductive and developmental effects animal data, 3:745-746 human data, 3:746 toxic effects in animals acute toxicity, 3:742 chronic toxicity, 3:742 subchronic toxicity, 3:742 toxic effects in humans acute toxicity, 3:742-743 exposures, 3:743-745 toxicokinetics, 3:737 absorption, 3:737-738 biological exposure monitoring, 3:741-742 biotransformation, 3:738 distribution, 3:738 endogenous production, 3:737 excretion, 3:738-739 physiologically based pharmacokinetic modeling, 3:741 studies in animals, 3:739-740 studies in humans, 3:740-741 Acetone alcohol. See Acetone Acetone oil. See Acetone Acetonitrile carcinogenesis, 2:966 chemical and physical properties, 2:950t-951t, 2:964 exposure assessment, 2:965 exposure standards, 2:967 genetic and cellular effects, 2:966 odor and warning properties, 2:964 production and use, 2:964–965 reproductive and developmental effects, 2:966 toxic effects acute toxicity, 2:965, 2:965t chronic and subchronic toxicity, 2:965-966 experimental studies, 2:965-966 human experience, 2:966-967 Acetonyl acetone. See 2,5-Hexanedione Acetonyldimethyl carbinol. See 4-Hydroxy-4-methyl-2-pentanone Aceto PBN. See N-Phenyl-2-naphthylamine Acetophenone, 3:867 chemical and physical properties, 3:867 environmental impact, studies, 3:871 exposure assessment, 3:867-869

guidelines of exposure, 3:871 production and use, 3:867 toxic effects experimental studies, 3:869-871 human experience, 3:871 Acetose. See Cellulose acetate 1-Acetoxybutane. See Butyl acetate Acetoxyethane. See Ethyl acetate 1-Acetoxyethylene. See Ethenyl acetate Acetoxymethyl benzene. See Benzyl acetate (Acetoxymethyl) benzene. See Benzyl acetate 1-Acetoxypentane. See n-Amyl acetate 3-Acetoxyphenol. See Resorcinol monoacetate 1-Acetoxypropane. See n-Propyl acetate 2-Acetoxypropane. See Isopropyl acetate 3-Acetoxypropene. See Allyl acetate Acetylacetaldehyde dimethyl acetal. See Ketoacetal Acetylacetone. See 2,4-Pentanedione Acetyl acetone peroxide. See 3,5-Dimethyl-3,5-dihydroxy-1,2dioxolone Acetylacetylene. See 3-Butyn-2-one Acetylaldehyde. See Acetaldehyde 2-Acetylaminofluorene, 2:594, 2:685 chemical and physical properties, 2:595, 2:685 exposure assessment, 2:685 guidelines of exposure, 2:595, 2:687 production and use, 2:595, 2:685 toxic effects, 2:595, 2:685-687 pharmacokinetics, metabolism, and mechanisms, 2:686 N-Acetyl-2-aminofluorene. See 2-Acetylaminofluorene Acetylated cellulose. See Cellulose triacetate N-acetyl-β-D-glucosaminidase (NAG), 1:187, 1:408, 1:408, 1:735, 1:783, 1:1043 Acetylbenzene. See Acetophenone Acetyl cellulose. See Cellulose acetate Acetylcholinesterase, 1:42, 1:60, 1:61, 1:270, 1:274, 1:368 Acetylcitric acid, tributyl ester. See Acetyl tributyl citrate Acetyl cyclohexanesulfonyl peroxide, 4:588 chemical and physical properties, 4:589 exposure assessment, 4:589 toxic effects. 4:589 N-Acetylcysteine, protect from hyperoxia-induced lung injury, 1:989 Acetylene, 2:79 chemical and physical properties, 2:80 exposure assessment, 2:80 guidelines of exposure, 2:81 production and use, 2:80 toxic effects, 2:80 Acetylene black. See Carbon black Acetylenecarboxylic acid. See Propiolic acid Acetylene dichloride. See Dichloroacetylene; cis-/ trans-1,2-Dichloroethylene Acetylene tetrabromide. See Tetrabromoethane-1,1,2,2 Acetylene tetrachloride. See Tetrachloroethane-1,1,2,2 Acetylene trichloride. See Trichloroethylene Acetylenyl carbinol. See Propargyl alcohol N-Acetylethanolamine, 2:506 guidelines of exposure, 2:506

production and use, 2:506 toxic effects, 2:506 Acetylethyne. See 3-Butyn-2-one Acetyl hydroperoxide. See Peroxyacetic acid Acetyl methyl carbinol. See Acetoin Acetyl monoglyceride. See Glyceryl monoacetate 2-(Acetyloxy)-1,2,3-propanetricarboxylic acid, tributyl ester. See Acetyl tributyl citrate 2-(Acetyloxy)-1,2,3-propanetricarboxylic acid, triethyl ester. See Acetyl triethyl citrate Acetyl peroxide. See Diacetyl peroxide Acetylphosphoramidothioic acid. See Acephate Acetylphosphoramidothioic acid ester. See Acephate 2-Acetyl propane. See Methyl isopropyl ketone Acetyl 2-propanone. See 2,4-Pentanedione Acetyl propionyl. See 2,3-Pentanedione Acetylresorcinol. See Resorcinol monoacetate Acetyl tributyl citrate, 4:324 chemical and physical properties, 4:325 production and use, 4:325 toxic effects, 4:325 acute toxicity, 4:325 carcinogenesis, 4:325 chronic and subchronic toxicity, 4:325 genetic and related cellular effects studies, 4:326 pharmacokinetics, metabolism, and mechanisms, 4:325 reproductive and developmental, 4:325 Acetyl triethyl citrate, 4:323 chemical and physical properties, 4:324 production and use, 4:324 toxic effects, 4:324 acute toxicity, 4:324 chronic and subchronic toxicity, 4:324 neurological, pulmonary, skin sensitization, 4:324 ACGIH, 5:7. See American Conference of Governmental Industrial Hygienists inhalable, thoracic, and respirable dust criteria, 5:81t Acid-reacting salts, 1:362 Acifloctin. See Adipic acid Acinetten. See Adipic acid Acintene DP dipentene. See Limonene ACM. See Acrylic elastomer Acna Black DF Base. See 4-Aminodiphenylamine; p-Aminodiphenylamine Aconitic acid, 3:578 chemical and physical properties, 3:578 guidelines of exposure, 3:579 production and use, 3:578 toxic effects experimental studies, 3:579 human experience, 3:579 trans-Aconitic acid. See Aconitic acid Acoustic trauma, 6:90–91 categorization of range of human hearing, 6:92t from hunting and target shooting, 6:91-92 Acquinite. See Acrolein Acquired immunodeficiency syndrome (AIDS), 1:261, 1:357, 1:976 Acraldehyde. See Acrolein

Acridine, 5:421 chemical and physical properties, 5:422 exposure assessment, 5:422 guidelines of exposure, 5:422 production and use, 5:422 toxic effects, 5:422 Acrodynia, 1:221 Acroleic. See Acrylic acid Acrolein, 3:683 chemical and physical properties, 3:684 environmental impact, studies, 3:688-692 exposure assessment, 3:684-686 guidelines of exposure, 3:688 production and use, 3:684 toxic effects experimental studies, 3:686-688 human experience, 3:688 trans-Acrolein. See Acrolein Acrolein, neuropathies, 1:53 Acronyms for chemicals, database/list, 2:525-526 Acrylafil. See Styrene-acrylonitrile (SAN) Acrylaldehyde. See Acrolein Acrylamide, nerve fiber injury, 1:43, 1:53 Acrylamide resin. See Polyacrylamide Acrylate rubber. See Acrylic elastomer Acrylates, 4:108, 4:110 physical and chemical properties, 4:109 toxicity data, 4:111 Acrylic acid, 3:537 chemical and physical properties, 3:537 guidelines of exposure, 3:541 production and use, 3:537 toxic effects, 3:537 experimental studies, 3:537-541 human experience, 3:541 Acrylic acid, 1,3-butylene glycol diester. See 1,3-Butanediol diacrylate Acrylic acid, 2-ethoxyethanol diester. See Diethylene glycol diacrylate Acrylic acid ethyl ester. See Ethyl acrylate Acrylic acid, hydroxypropyl ester. See Propylene glycol monoacrylate Acrylic acid methyl ester. See Methyl acrylate Acrylic acid,2-methyl-,methyl ester. See Methyl methacrylate Acrylic acid n-butyl ester. See n-Butyl acrylate Acrylic acid polymer. See Polyacrylic acid Acrylic aldehyde. See Acrolein Acrylic elastomer, 4:901 chemical and physical properties, 4:901 guidelines of exposure, 4:901 production and use, 4:901 Acrylic polymer resins. See Polyacrylic acid Acrylite. See Polymethyl methacrylate Acrylonitrile carcinogenesis, 2:962 chemical and physical properties, 2:961, 950t-951t clinical cases, acute toxicity, 2:962 epidemiology studies, 2:962-963

experimental studies, 2:961 exposure assessment, 2:961 exposure standards, 2:963 human experience, 2:962 odor and warning properties, 2:961 pharmacokinetics, metabolism, and mechanisms, 2:961 production and use, 2:961 reproductive and developmental effects, 2:962 toxic effects, 2:961-963 Acrylonitrile-butadiene, 4:897 guidelines of exposure, 4:898-899 physical and chemical properties, 4:897 production and use, 4:897 toxic effects, **4:**897-898 Acrylonitrile-Butadiene-Styrene (ABS), 4:926 chemical and physical properties, 4:926-927 production and use, 4:927 toxic effects, 4:927 Acrylonitrile-cellulose graft copolymer. See Polyacrylonitrile Acrylonitrile-cellulose polymer. See Polyacrylonitrile Acrylonitrile-styrene copolymer. See Styrene-acrylonitrile (SAN) Acrylonitrile styrene polymer. See Styrene-acrylonitrile (SAN) Acrylonitrile-styrene resin. See Styrene-acrylonitrile (SAN) Acrypet. See Polymethyl methacrylate ACS. See Styrene-acrylonitrile (SAN) Actinolite. See Asbestos Actinomycin D, 1:393 Active acetylacetate. See Ethyl acetoacetate Acute inhalation toxicity, 1:517 Acute mountain sickness, 1:983 Acute myelogenous leukemia (AML), 1:154 Acute NO₂ exposures, 1:972 Acute renal failure (ARF), 1:856 Acute tubular necrosis (ATN), 1:573 AD 6. See Propylene oxide Ad 6 (suspending agent). See Propylene oxide Adakane 12. See Dodecane Adeno-associated virus (AAV) vector, 1:582 Adenosine triphosphatases (ATPase), 1:368 Adenosine triphosphate (ATP) production, 6:184 S-Adenosylmethionine, 1:479 Adepsine oil. See White oils Adesitrin. See Nitroglycerin Adhesive bonding compound, 2:727 Adipaldehyde, 3:705 chemical and physical properties, 3:706 toxic effects, 3:706 Adipates toxicity of, 4:214t Adipic acid, 3:517 chemical and physical properties, 3:518 exposure assessment, 3:518 guidelines of exposure, 3:519 production and use, 3:518 toxic effects, 3:518 experimental studies, 3:518-519 human experience, 3:519 Adipic acid, bis(2-butoxyethyl) ester. See Dibutoxyethyl adipate

Adipic acid, bis(2-(ethylbutoxy)ethyl) ester. See Di-2-(2ethylbutoxy)ethyl adipate Adipic acid, bis(2-ethylbutyl) ester. See Di(2-ethylbutyl) adipate Adipic acid, bis(ethylene glycol monobutyl ether) ester. See Dibutoxyethyl adipate Adipic acid, bis(2-(hexyloxy)ethyl) ester. See Di(2-hexyloxyethyl) adipate Adipic acid, dibutoxyethyl ester. See Dibutoxyethyl adipate Adipic acid, dibutyl ester. See n-Dibutyl adipate Adipic acid, didecyl ester. See n-Didecyl adipate Adipic acid, di (2-(2-ethylbutoxy)ethyl) ester. See Di-2-(2ethylbutoxy)ethyl adipate Adipic acid, di(2-ethylbutyl) ester. See Di(2-ethylbutyl) adipate Adipic acid, diethyl ester. See Diethyl adipate Adipic acid, di(2-hexyloxyethyl) ester. See Di(2-hexyloxyethyl) adipate Adipic acid, diisooctyl ester. See Diisooctyl adipate Adipic acid dimethyl ester. See Dimethyl adipate Adipic acid, dioctyl ester. See n-Dioctyl adipate Adipinic acid. See Adipic acid Adiponitrile chemical and physical properties, 2:950t-951t, 973 experimental studies, 2:973 exposure assessment, 2:973 exposure standards, 2:974 human experience, 2:974 odor and warning properties, 2:973 production and use, 2:973 reproductive and developmental effects, 2:974 toxic effects, 2:972 Adrenergic pathways, 1:529 Adronol. See Cyclohexanol Adsorptive stripping voltammetry, 1:655 Adulsin. See Methylcellulose Adult environmental neurobehavioral test battery (AENTB), 1:53 Adult respiratory distress syndrome (ARDS), 1:182, 1:660 Advisory Committee for Safety and Health at Work (ACSH), 5:17 Aedelforsite. See Wollastonite DL-a-epichlorohydrin. See Epichlorohydrin Aerosol mass effect of size-selective inlet characteristic, 5:82f Aerotex glyoxal 40. See Glyoxal Aethylium paraminobenzoicum. See Ethyl p-aminobenzoate Afcolene. See Polystyrene AGE. See Allyl glycidyl ether Ageflex bge. See n-Butyl glycidyl ether Agency for Toxic Substances and Disease Registry (ATSDR), 1:214. 1:364. 1:365. 1:399. 1:1049. 1:1079. 1:1097 Agency for Toxic Substances and Disease Research, 1:374 Agerite. See N-Phenyl-2-naphthylamine Agilene. See Polyethylene α -Hydro- ω -poly(oxy-1,2-ethanediyl). See Polyoxyethylene (POE) α -Hydroxytoluene. See Benzyl alcohol AI3-00239. See Dioctyl sodium sulfosuccinate AI3-00579. See Methyl cinnamate AI3-00666. See n-Dibutyl succinate AI3-00667. See Ethyl cinnamate AI3-00682. See Diethyl succinate AI3-00846. See Resorcinol dibenzoate

AI3-00997. See n-Dihexyl maleate AI3-00998. See Di(2-ethylhexyl) succinate AI3-01268. See Benzyl cinnamate AI3-02024. See n-Propyl cinnamate AI3-02025. See n-Butyl cinnamate AI3-02081. See Ethyl p-aminobenzoate AI3-02284. See Butyl p-aminobenzoate AI3-02313. See n-Allyl cinnamate AI3-02359. See Resorcinol monoacetate AI3-02437. See Methyl p-aminobenzoate AI3-02451. See Linayl Cinnamate AI3-05512. See Dipropyl succinate AI3-06314. See Resorcinol diacetate AI3-17136. See Propyl gallate AI3-00090 [NLM]. See Salicylates AI3-00195 [NLM]. See Phenyl salicylate AI3-00334 [NLM]. See Amyl salicylate AI3-00418 [NLM]. See Dipentyl maleate AI3-00513 [NLM]. See Ethyl salicylate AI3-00521 [NLM]. See Butyl benzoate AI3-00523 [NLM]. See Benzyl benzoate AI3-00644 [NLM]. See Dibutyl maleate AI3-00656 [NLM]. See Diethyl malonate AI3-00661 [NLM]. See Glyceryl triacetate AI3-00676 [NLM]. See Glyceryl diacetate AI3-000678 [NLM]. See Diethyl maleate AI3-01022 [NLM]. See Methyl o-aminobenzoate AI3-01132 [NLM]. See Isopropyl benzoate AI3-01336 [NLM]. See Methyl paraben AI3-01341 [NLM]. See Propyl paraben AI3-01352 [NLM]. See Ethyl benzoate AI3-01776 [NLM]. See Glyceryl tributyrate AI3-01970 [NLM]. See Diethyl sebacate AI3-01982 [NLM]. See Dibutyl azelate AI3-02064 [NLM]. See Hexyl benzoate AI3-05613 [NLM]. See Diethyl fumarate AI3-06007 [NLM]. See Glutarates AI3-06011 [NLM]. See n-Dibutyl oxalate AI3-07869 [NLM]. See Dimethyl maleate AI3-07870 [NLM]. See Di(2-ethylhexyl) maleate AI3-07939 [NLM]. See Glyceryl tripropionate AI3-07948[NLM]. See Glyceryl trihexanoate AI3-07965 [NLM]. See Di(2-ethylhexyl) azelate AI3-09124 [NLM]. See Di(2-ethylhexyl) sebacate AI3-09505 [NLM]. See n-Dibutyl fumarate AI3-11186 [NLM]. See Diethyl itaconate AI3-11244 [NLM]. See Diisopropyl oxalate AI3-15489 [NLM]. See Diisopropyl fumarate AI3-16883 [NLM]. See Dimethyl itaconate AI3-17415 [NLM]. See Di(2-ethylhexyl) fumarate AI3-21214 [NLM]. See Dimethyl oxalate AI3-22998 [NLM]. See Glyceryl trinonanoate AI3-24158 [NLM]. See Glyceryl monoacetate AI3-24554 [NLM]. See Vinvl benzoate AI3-30960 [NLM]. See Ethyl paraben AI3-36968 [NLM]. See Glyceryl tridecanoate Air pollutant exposure assessment, 5:84t AL-50. See 2,6-Dichloro-4-nitroaniline ALA-dehydratase inhibition, 1:708

Alanine aminotransferase (ALT), 1:192, 1:360, 1:825, 1:921 Alanine transferase (ALAT), 1:737 ALARA principle, 1:19 Alathon. See Polyethylene Alboline. See White oils Alcogum 5499-R. See Hydroxyethylcellulose Alcohol. See Ethanol Alcohol C7. See 1-Heptanol Alcohol C8. See 1-Octanol Alcohol C9. See 1-Nonanol Alcohol C10. See 1-Decanol Alcohol C12. See 1-Dodecanol Alcohol; C16. See C16 Alcohols Alcohol dehydrated. See Ethanol Alcohol isobutylique. See Isobutanol Alcohols, chemical and physical properties of, 4:2 Alcool butylique. See 1-Butanol Alcotex 88/05. See Polyvinyl alcohol Alcotex 88/10. See Polyvinyl alcohol Alcowax. See Polyethylene Aldehido cinamico. See Cinnamaldehyde Aldehyde. See Acetaldehyde Aldehyde C(2). See Acetaldehyde Aldehyde C(3). See Propionaldehyde Aldehyde C₆. See Hexanal Aldehyde C-7. See n-Heptaldehyde Aldehyde collidine. See Alkylpyridines Aldehyde oxidase (AO), 1:582, 1:584 Aldehydes inhalation toxicity of, 3:683t Aldesan. See Glutaraldehyde Aldicarb exposure frequency of categories, 5:117t Aldifen. See 2,4-Dinitrophenol Aldol (acetaldol). See β -Hydroxybutyraldehyde (acetaldol) Aldol, 3-hydroxybutanal. See β-Hydroxybutyraldehyde (acetaldol) Aldrin, 3:437 chemical and physical properties, 3:437-438 exposure assessment, 3:438 guidelines of exposure, 3:440 production and use, 3:438 toxic effects, 3:438-440 experimental studies, 3:438-440 human experience, 3:440 Algrain. See Ethanol Alhydex. See Glutaraldehyde Alicyclic amines, 2:433 Alicyclic hydrocarbons, 2:103 Aliphatic aldehydes, unsaturated physical and chemical properties of, 3:685t toxic effects of, 3:689t-691t Aliphatic/alicyclic monoamines physical and chemical properties of, 2:435 Aliphatic/alicyclic polyamines physical and chemical properties of, 2:436 Aliphatic amines, 2:433 absorption, 2:437 chemical and physical properties, 2:433-434 manufacture, 2:434

metabolism, distribution, and elimination, 2:437-441 physiological and pathological effects, 2:441-447 in humans, 2:447-448 uses, 2:435-437 Aliphatic and aromatic nitrogen compounds, 2:705-773 Aliphatic carboxylic acids, 3:471 saturated aliphatic monocarboxylic acids, 3:471 Aliphatic dialdehydes, 3:700 physical and chemical properties of, 3:701 toxic effects of, 3:702-703 Aliphatic hydrocarbons, 2:1 Aliphatic nitrates, 2:375 chemical and physical properties of, 2:375 Monday morning angina, 2:377 physiological effects of, 2:376 uses of, 2:375 Aliphatic petroleum naphtha. See Petroleum naphthas; Rubber solvent Alkane, 2:49 physicochemical properties of, 2:50 Alkane C8. See n-Octane Alkane C(10). See n-Decane Alkane C(12). See Dodecane Alkane ethers, 3:597 Alkanes, 2:1, 5:339 chemical and physical properties, 5:339 exposure assessment, 5:339 generic formula, 2:1 guidelines of exposure, 5:340 isomers, 5:339t physicochemical properties of, 2:3, 2:79 production and use, 5:339 toxic effects, 5:339-340 toxicity of, 2:1 Alkanolamines physical characteristics and toxicologic levels of, 2:438 Alkathene. See Polyethylene Alkene ethers, 3:613, 3:614 toxic effects of, 3:614t Alkenes, 2:49, 2:63 Alkenylbenzenes toxic effects, 2:228-229 Alkenyl cycloalkenes, 2:120 Alkotex. See Polyvinyl alcohol Alkyd resins, 4:977 environmental impact, studies, 4:978-979 exposure assessment, 4:978 production and use, 4:977-978 toxic effects, 4:978 Alkyl-alphacyanoacrylate, foreign body tumorigenic potentials of, 1:449 Alkyl and aryl phosphines, 4:371 Alkyl and aryl phosphites, 4:373 Alkyl and chloroalkyl esters inhalation effects of, 4:396t toxicity data, 4:395t Alkylbenzenes, 2:204 Alkyl (C₈-C₁₀) glycidyl ether. See Alkyl glycidyl ethers Alkyl (C₁₀-C₁₆) glycidyl ether. See Alkyl glycidyl ethers

Alkyl (C12-C13) glycidyl ether. See Alkyl glycidyl ethers Alkyl (C12-C14) glycidyl ether. See Alkyl glycidyl ethers Alkyl glycidyl ethers, 4:466 chemical and physical properties, 4:467 exposure assessment, 4:467 guidelines of exposure, 4:469 production and use, 4:467 toxic effects experimental studies, 4:467-469 human experience, 4:469 Alkyl nitrites, 2:390 acute inhalation toxicity of, 2:392 chemical and physical properties, 2:390 methemoglobin formation, 2:391 pharmacological and toxicological effects, 2:391 toxicity data for, 2:393 Alkyl phosphates, 4:376 Alkylpiperidine derivatives, 2:732 Alkylpyridines, 2:787, 2:802 carcinogenesis, 2:794, 2:795, 2:804 chemical and physical properties, 2:787, 2:803 environmental impact, studies on, 2:795, 2:796, 2:804, 2:805 exposure assessment, 2:788, 2:803 genetic and related cellular effects studies, 2:795, 2:804 human experience, 2:795, 2:804 odor and warning properties, 2:787, 2:803 pharmacokinetics, metabolism, and mechanisms, 2:793, 2:794 production and use, 2:787-788, 2:803 standards, regulations, or guidelines of exposure, 2:795, 2:804 toxic effects, 2:788, 2:803 acute toxicity, 2:788-793, 2:803 chronic and subchronic toxicity, 2:793, 2:804 experimental studies, 2:788, 2:803 pharmacokinetics, metabolism, and mechanisms, 2:804 reproductive and developmental, 2:794 Alkynes, 2:79 higher, 2:83 Allergic contact dermatitis (ACD), 1:705, 2:770, 2:955 Allergic eczema, 1:693 Allisan. See 2,6-Dichloro-4-nitroaniline Allomaleic acid. See Fumaric acid Alloying elements, 1:362 Allyl acetate, 4:91 chemical and physical properties, 4:91, 4:92 exposure assessment, 4:92 air, 4:92 background levels, 4:92 workplace methods, 4:92 odor and warning properties, 4:92 production and use, 4:92 standards, regulations, or guidelines of exposure, 4:92 toxic effects, 4:92 acute toxicity, 4:92 experimental studies, 4:92 human experience, 4:92 pharmacokinetics, metabolism, and mechanisms, 4:92 Allylacetic acid. See Pentenoic acid Allyl alcohol chemical and physical properties, 4:37

exposure assessment, 4:37 workplace methods, 4:37 odor and warning properties, 4:37 production and use, 4:37 standards, regulations, or guidelines of exposure, 4:39 toxic effects, 4:37 acute toxicity, 4:37 carcinogenesis, 4:39 chronic and subchronic toxicity, 4:37, 4:38 clinical cases, 4:39 epidemiology studies, 4:39 experimental methods, 4:37 genetic and related cellular effects studies, 4:39 pharmacokinetics, metabolism, and mechanisms, 4:38 reproductive and developmental, 4:38, 4:39 Allyl alcohol oxide. See Glycidol Allyl aldehyde. See Acrolein Allylamines, 2:475 chemical and physical properties, 2:475 exposure assessment, 2:476 guidelines of exposure, 2:477 production and use, 2:476 rat, toxicity of, 2:446 toxic effects, 2:476 Allylbenzene, 2:231 chemical and physical properties, 2:231 guidelines of exposure, 2:231 production and use, 2:231 toxic effects, 2:231 Allyl β-phenylacrylate. See n-Allyl cinnamate Allyl chloride, 3:148 chemical and physical properties, 3:148-149 environmental impact, studies, 3:153 exposure assessment, 3:149 guidelines of exposure, 3:153 production and use, 3:149 toxic effects experimental studies, 3:149-152 human experience, 3:152-153 Allyl chloride oxide. See Epichlorohydrin Allyl cinnamate, 4:176 chemical and physical properties, 4:176 production and use, 4:176 standards, regulations, or guidelines of exposure, 4:177 toxic effects, 4:177 acute toxicity, 4:177 experimental studies, 4:177 genetic and related cellular effects studies, 4:177 human experience, 4:177 pharmacokinetics, metabolism, and mechanisms, 4:177 Allyl diglycol carbonate. See Allyl polymers 1-Allyl-3,4-dimethoxybenzene. See Methyleugenol 4-Allyl-1,2-dimethoxybenzene. See Methyleugenol Allylene. See Propyne Allylester kyseliny skoricove [Czech]. See n-Allyl cinnamate Allyl ethers, 3:614 Allyl formate, 4:65 chemical and physical properties, 4:65 toxic effects, 4:66

Allyl glycidyl ether, 4:460 chemical and physical properties, 4:460 exposure assessment, 4:460 guidelines of exposure, 4:462 production and use, 4:460 toxic effects experimental studies, 4:460-462 human experience, **4:**462 Allyl guaiacol. See Eugenol Allyl mercaptan animal and human studies, 4:1054 chemical and physical properties, 4:1054 1-Allyl-3-methoxy-4-hydroxybenzene. See Eugenol Allyl n-octyl sulfoxide, 4:1062–1063 1-(Allyloxy)-2,3-epoxypropane. See Allyl glycidyl ether Allyl 3-phenylacrylate. See n-Allyl cinnamate Allyl 3-phenyl-2-propenoate. See n-Allyl cinnamate Allyl polymers, 4:979 chemical and physical properties, 4:979 production and use, 4:979 toxic effects, 4:979 Allyl veratrole. See Methyleugenol 4-Allylveratrole. See Methyleugenol Almolose. See Carboxymethyl cellulose; Carboxymethylcellulose Almond artificial essential oil. See Benzaldehyde Alopecia, 1:172, 1:306, 1:309, 1:316, 1:320, 1:326, 1:329, 1:728, 1:856 due to thallium poisoning, 1:309, 1:326 Alpha, beta-dibromoethane. See Ethylene dibromide Alpha, beta-dichloroethane. See Ethylene dichloride Alpha, beta-dichloropropane. See Propylene dichloride Alpha, beta-dimethoxyethane. See Ethylene glycol dimethyl ether Alpha, beta-epoxystyrene. See Styrene oxide Alpha, beta-oxidoethane. See Ethylene oxide Alpha, beta-propylene dichloride. See Propylene dichloride Alpha-epichlorohydrin. See Epichlorohydrin Alpha-trans-gamma-trans-sorbic acid. See Sorbic acid Alpha-hydro-omega-hydroxypoly(oxy-1,4-butanediyl). See Polybutylene glycols Alpha-hydro-omega-hydroxy poly(oxy-1,2-ethanediyl) PEG 1000. See Polyethylene glycols Alpha isomer: 1-(1,1-dimethylethoxy)-2-propanol, 1-tertiary-butoxypropan-2-ol. See Propylene glycol mono-tertiary-butyl ether Alpha-isophorone. See Isophorone Alpha-linolenic acid. See Linolenic acid Alphaltum. See Asphalt Alpha-methylbenzenemethanol. See 1-Phenylethanol Alpha-methylbenzyl alcohol. See 1-Phenylethanol Alpha-methylnaphthalene. See Methylnaphthalene Alpha-methyl-omegamethoxypolydimethylsiloxane. See Silicones Alpha particles, 1:2, 1:10, 1:17, 1:906 Alpha-phenylethyl alcohol. See 1-Phenylethanol Alpha-propyleneglycol. See Propylene glycol Alpha-toluenol. See Benzyl alcohol Alpha-trichloroethane. See Methyl chloroform Alumina. See Aluminum Alumina refining, 1:231, 1:232 Aluminosis, 1:242, 1:243, 1:244

Aluminum, 1:229 aluminum smelting, 1:232-233 exposure assessment, 1:235-236 production, 1:231f of superpurity aluminum, 1:234 standards, regulations, and guidelines of exposure, 1:247, 1:247t studies on environmental impact, 1:248, 1:249 sustainablity, 1:234 toxic effects, 1:236 acute toxicity, 1:236 carcinogenesis, 1:239 chronic and subchronic toxicity, 1:236-237 clinical cases, 1:241-247 developmental toxicity, 1:239 distribution, 1:238 excretion, 1:238 genetic and related cellular effects studies, 1:240 human experience, 1:241 neurological toxicity, 1:240 pharmacokinetics, metabolism, and mechanisms, 1:237-238 pulmonary toxicity, 1:240-241 reproductive and developmental, 1:238-239 uses, 1:234 Aluminum chloride, DNA damages, 1:240 Aluminum hydroxide, 1:230 alumina reduction, 1:232-233 Bayer process, for production, 1:232 chemical and physical properties, 1:230 prebake electrolytic reduction process, 1:233, 1:233f production and use, 1:231 Söderberg electrolytic reduction process, 1:233-234, 1:234f Aluminum lactate, 1:239 Aluminum nitrate, 1:237, 1:239 Aluminum oxide, 1:229, 1:232, 1:240, 1:248, 1:443 Aluminum silicate (hydrated). See Kaolin Aluminum silicate dihydrate. See Kaolin Aluminum silicate hydroxide. See Kaolin Aluminum zirconium compounds clinical cases, 1:455 general information, 1:455 standards, regulations, or guidelines of exposure, 1:455 toxic effects human experience, 1:455 Alutor M 770. See Polymethyl methacrylate Alveolarization, 1:551 Alveolar macrophages, 1:358 Alveolar ventilation. 6:315 Alvora. See Naled Alvyl. See Polyvinyl alcohol Alzheimer's disease, 1:36, 1:44, 1:52, 1:240, 1:242, 1:245, 1:260, 1:375, 1:389 Amacel developed navy SD. See 3,3'-Dimethoxybenzidine Amarthol fast orange R base. See 3-Nitroaniline; m-Nitroaniline Amarthol fast scarlet G base. See 5-Nitro-o-toluidine Amarthol fast scarlet GG base. See 2.5-Dichloroaniline Amarthol fast scarlet G salt. See 5-Nitro-o-toluidine Amben ethyl ester. See Ethyl p-aminobenzoate Ambythene. See Polyethylene

American Chemical Society (ACS), 5:50 American Conference of Governmental Industrial Hygienists (ACGIH), 2:710, 6:478 TLV ceiling exposure limit, 2:954 TLV Committee, 2:749 American Conference of Governmental Industrial Hygienists (ACGIH), exposure standard, 1:24, 1:26, 1:32, 1:39, 1:77, 1:118, 1:201, 1:312, 1:454, 1:460, 1:463, 1:466, 1:491, 1:494, 1:496, 1:502, 1:576, 1:585, 1:720, 1:847, 1:876, 1:951, 1:1040, 1:1058, 1:1059, 1:1088 beryllium, 1:137 bismuth telluride, 1:502 bromine, 1:1088 bromine halides. 1:1093 cadmium, 1:201 calcium fluoride, 1:1056 carbon dioxide, 1:964 carbon monoxide, 1:951 chloride salts, 1:1074 chromium compounds, 1:575 chromyl chloride, 1:576 cobalt, 1:32 dicyclopentadiene, 1:28 fluoride dusts, 1:1056t fluorine, 1:1038 hafnium dihydride, 1:467 hafnium sulfate, 1:462 hafnium tetrabromide, 1:465 hydrogen chloride, 1:1069 hydrogen selenide, 1:859 indium, 1:299 magnesium oxide, 1:148 miscellaneous fluorides, 1:1058t-1059t phosgene, 1:966 phosphine, 1:850 silver, 1:76t, 1:92 sulfur dioxide, 1:868 tellurium, 1:863 thallium, 1:328, 1:335 thionyl chloride, 1:876 tungsten compounds, 1:596 uranium, 1:800t zinc compounds, 1:176t zirconium compounds, 1:455, 1:456 zirconium oxychloride, octahydrate, 1:452 zirconium oxynitrate, 1:454 zirconium silicate, 1:453 zirconium sulfate, tetrahydrate, 1:451 American Cyanamid 3911. See Phorate American Industrial Hygiene Association (AIHA), 2:731, 5:1, 5:2 American Public Health Association, 1:385 American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), 1:961 Ames mutagenicity tests, 1:824 Ames test, 2:730 Ametryn, 2:845 chemical and physical properties, 2:846

environmental impact, studies, 2:848 exposure assessment, 2:846 guidelines of exposure, 2:847-848 production and use, 2:846 toxic effects carcinogenesis, 2:847 cellular effects studies, 2:847 chronic and subchronic toxicity, 2:846 experimental studies, 2:846 human experience, 2:847 pharmacokinetics, metabolism, and mechanism, **2:**846–847 reproductive and developmental, 2:847 Amianthus. See Asbestos Amietol M11. See Monomethylethanolamine Amines acute toxicity of, 2:442-443 amine bases, relative toxicity of, 2:445 Aminic acid. See Formic acid Aminoaciduria, 1:191 2-Aminoaniline. See 1,2-Phenylenediamine 3-Aminoaniline. See 1,3-Phenylenediamine 4-Aminoaniline. See 1,4-Phenylenediamine p-Aminoaniline. See 1,4-Phenylenediamine o-Aminoanisole. See o-Anisidine p-Aminoanisole. See p-Anisidine Aminoazotoluene. See o-Aminoazotoluene 2-Amino-5-azotoluene. See o-Aminoazotoluene o-Aminoazotoluene, 2:683 chemical and physical properties, 2:684 guidelines of exposure, 2:684-685 production and use, 2:684 toxic effects, 2:684 p-Aminobenzaldehyde, 3:713 chemical and physical properties, 3:714 toxic effects, 3:714 Aminobenzene. See Aniline 2-Aminobenzenol. See 2-Aminophenol; o-Aminophenol 4-Aminobenzenol. See 4-Aminophenol; p-Aminophenol o-Aminobenzoates, 4:152 physical and chemical properties of, 4:153 toxicity of, 4:155 p-Aminobenzoates, 4:151 4-Aminobenzoic acid butyl ester. See Butyl p-aminobenzoate p-Aminobenzoic acid butyl ester. See Butyl p-aminobenzoate 4-Aminobenzoic acid diethylaminoethyl ester. See 2-(Diethylamino) ethyl p-aminobenzoate p-Aminobenzoic acid 2-diethylaminoethyl ester. See 2-(Diethylamino) ethyl p-aminobenzoate 4-Aminobenzoic acid ethyl ester. See Ethyl p-aminobenzoate 2-Aminobenzoic acid methyl ester. See Methyl o-aminobenzoate 4-Aminobenzoic acid methyl ester. See Methyl p-aminobenzoate o-Aminobenzoic acid methylester. See Methyl o-aminobenzoate p-Aminobenzoic acid methyl ester. See Methyl p-aminobenzoate p-Aminobenzoic acid propyl ester. See Propyl *p*-aminobenzoate p-Aminobenzoyldiethylaminoethanol. See 2-(Diethylamino) ethyl *p*-aminobenzoate 4-(4-Aminobenzyl)aniline. See 4,4'-Methylenedianiline

Aminobiphenyl. See 4-Aminobiphenyl 4-Aminobiphenyl, 2:587, 2:670 chemical and physical properties, 2:588, 2:670 exposure assessment, 2:588, 2:671 guidelines of exposure, 2:588, 2:672 production and use, 2:588, 2:671 toxic effects, 2:588, 2:671-672 Aminobutane. See n-Butylamine 1-Aminobutane. See n-Butylamine 2-Aminobutane. See 2-Butylamine 1-Amino-2-butanol. See Mono-sec-butanolamine 1-Amino-sec-butanol. See Mono-sec-butanolamine 2-Amino-4-chloroaniline. See 4-Chloro-1,2-phenylenediamine 1-Amino-2-chlorobenzene. See 2-Chloroaniline; o-Chloroaniline 1-Amino-3-chlorobenzene. See 3-Chloroaniline; m-Chloroaniline 1-Amino-4-chlorobenzene. See 4-Chloroaniline; p-Chloroaniline m-Aminochlorobenzene. See 3-Chloroaniline; m-Chloroaniline p-Aminochlorobenzene. See 4-Chloroaniline; p-Chloroaniline 1-Amino-3-chloro-6-methylbenzene. See 5-Chloro-o-toluidine 2-Amino-3-chlorotoluene. See 6-Chloro-o-toluidine 2-Amino-4-chlorotoluene. See 5-Chloro-o-toluidine 2-Amino-5-chlorotoluene. See 4-Chloro-o-toluidine Amino compounds, 2:517 Aminocyclohexane. See Cyclohexylamine 1-Amino-2,5-dichlorobenzene. See 2,5-Dichloroaniline 1-Amino-3,4-dichlorobenzene. See 3,4-Dichloroaniline 2-Amino-1,4-dichlorobenzene. See 2,5-Dichloroaniline Aminodimethylbenzene. See Xylidines 1-Amino-2,4-dimethylbenzene. See 2,4-Xylidine 1-Amino-2,5-dimethylbenzene. See 2,5-Xylidine 1-Amino-2,6-dimethylbenzene. See 2,5-Xylidine; 2,6-Xylidine 2-Amino-1,3-dimethylbenzene. See 2,5-Xylidine; 2,6-Xylidine 3-Amino-1,4-dimethylbenzene. See 2,5-Xylidine 4-Amino-1,3-dimethylbenzene. See 2,4-Xylidine 2-Amino-3,4-dimethyl-3*H*-imidazo[4,5-*f*]quinoline. See 2-Amino-3,4-dimethylimidazo[4,5-f]quinoline 2-Amino-3,4-dimethylimidazo[4,5-f]quinoline, 2:688 chemical and physical properties, 2:689 production and use, 2:689 toxic effects, 2:689 2-Amino-3,8-dimethylimidazo[4,5-f]quinoxaline, 2:689 chemical and physical properties, 2:689 toxic effects, 2:689 4-Aminodiphenyl. See 4-Aminobiphenyl 4-Aminodiphenylamine, 2:593 chemical and physical properties, 2:594 guidelines of exposure, 2:594 production and use, 2:594 toxic effects, 2:594 p-Aminodiphenylamine, 2:682 Aminoethane. See Ethylamine Aminoethanol. See Monoethanolamine 2-Aminoethanol. See Monoethanolamine 2-Amino-1-ethanol. See Monoethanolamine β-Aminoethylamine. See Ethylenediamine 2-((Aminoethyl) amino)ethanol. See Aminoethylethanolamine 2-(2-Aminoethylamino)ethanol. See Aminoethylethanolamine 1-Amino-2-ethylbutane. See Isohexylamine Aminoethylethanolamine, 2:506

chemical and physical properties, 2:507 guidelines of exposure, 2:507 production and use, 2:507 toxic effects, 2:507 (2-Aminoethyl) ethanolamine. See Aminoethylethanolamine N-Aminoethylethanolamine. See Aminoethylethanolamine N-(2-Aminoethyl) ethanolamine. See Aminoethylethanolamine 1-Amino-2-ethylhexane. See 2-Ethylhexylamine N-(2-Aminoethyl)-N'-(2-hydroxyethyl). See N-(Hydroxyethyl) diethylenetriamine Aminogen PA. See Polyacrylamide 1-Aminoheptane, 2:471 chemical and physical properties, 2:471 guidelines of exposure, 2:471 toxic effects, 2:471 2-Aminoheptane, 2:471 chemical and physical properties, 2:471 guidelines of exposure, 2:471 production and use, 2:471 toxic effects, 2:471 3-Aminoheptane, 2:471 chemical and physical properties, 2:472 guidelines of exposure, 2:472 production and use, 2:472 toxic effects, 2:472 4-Aminoheptane, 2:472 guidelines of exposure, 2:472 production and use, 2:472 toxic effects, 2:472 Aminohexahydrobenzene. See Cyclohexylamine 1-Aminohexane. See n-Hexylamine 2-Amino-1-hydroxybenzene. See 2-Aminophenol; o-Aminophenol 3-Amino-1-hydroxybenzene. See 3-Aminophenol; *m*-Aminophenol 4-Amino-1-hydroxybenzene. See 4-Aminophenol; *p*-Aminophenol 1-Amino-2-hydroxyethane. See Monoethanolamine 3-Amino-4-hydroxynitrobenzene. See 2-Amino-4-nitrophenol 2-Aminoisobutane. See tert-Butylamine δ -Aminolevulinic acid (ALA), 1:387 δ -Aminolevulinic acid synthetase (ALA-S), 1:389, 1:499 δ -Aminolevulinic dehydratase (ALAD), 1:387, 1:499 1-Amino-2-methoxybenzene. See o-Anisidine 1-Amino-4-methoxybenzene. See p-Anisidine 1-Amino-2-methylbenzene. See o-Toluidine 2-Amino-1-methylbenzene. See o-Toluidine o-Aminomethylbenzoate. See Methyl o-aminobenzoate 1-Amino-3-methylbutane. See Isoamylamine 1-Amino-2-methyl-5-nitrobenzene. See 5-Nitro-o-toluidine 2-Amino-1-methyl-6-phenylimidazo[4,5-b]pyridine, 2:690 chemical and physical properties, 2:690 toxic effects, **2:**690 1-Amino-2-methylpropane. See Isobutylamine 2-Amino-3-methylpyridine. See Aminopicolines 2-Amino-4-methylpyridine. See Aminopicolines 2-Amino-5-methylpyridine. See Aminopicolines 2-Amino-6-methylpyridine. See Aminopicolines 4-Amino-3-methyltoluene. See 2,4-Xylidine 1-Aminonaphthalene. See 1-Naphthylamine

2-Aminonaphthalene. See 2-Naphthylamine 2-Amino-4-nitroaniline. See 4-Nitro-1,2-phenylenediamine 4-Amino-2-nitroaniline. See 2-Nitro-1,4-phenylenediamine 1-Amino-2-nitrobenzene. See 2-Nitroaniline; o-Nitroaniline 1-Amino-3-nitrobenzene. See 3-Nitroaniline; m-Nitroaniline 1-Amino-4-nitrobenzene. See 4-Nitroaniline; p-Nitroaniline m-Aminonitrobenzene. See 3-Nitroaniline; m-Nitroaniline p-Aminonitrobenzene. See 4-Nitroaniline; p-Nitroaniline 2-Amino-4-nitrophenol, 2:570 chemical and physical properties, 2:570 guidelines of exposure, 2:570 production and use, 2:570 toxic effects, 2:570 2-Amino-5-nitrophenol, 2:569, 2:644 chemical and physical properties, 2:569, 2:644-645 exposure assessment, 2:645 guidelines of exposure, 2:570, 2:645 production and use, 2:569, 2:645 toxic effects, 2:569-570, 2:645 4-Amino-2-nitrophenol, 2:645 chemical and physical properties, 2:645 exposure assessment, 2:646 guidelines of exposure, 2:646 production and use, 2:645-646 toxic effects, 2:646 p-Aminonitrophenol. See 4-Amino-2-nitrophenol 2-Amino-4-nitrotoluene. See 5-Nitro-o-toluidine 1-Aminooctane. See 1-Octylamine 2-Aminooctane. See 2-Octylamine 1-Aminopentane. See n-Amylamine 1-Aminopentate. See n-Amylamine Aminophen. See Aniline 2-Aminophenol, 2:567. See also o-Aminophenol chemical and physical properties, 2:567 guidelines of exposure, 2:568 production and use, 2:568 toxic effects, 2:568 3-Aminophenol, 2:568. See also m-Aminophenol chemical and physical properties, 2:568 guidelines of exposure, 2:568 production and use, 2:568 toxic effects, 2:568 4-Aminophenol, 2:568. See also p-Aminophenol chemical and physical properties, 2:569 guidelines of exposure, 2:569 production and use, 2:569 toxic effects, 2:569 m-Aminophenol, 2:642 chemical and physical properties, 2:642 exposure assessment, 2:642 guidelines of exposure, 2:643 production and use, 2:642 toxic effects, 2:642-643 o-Aminophenol, 2:641 chemical and physical properties, 2:641 exposure assessment, 2:642 guidelines of exposure, 2:642 production and use, 2:642 toxic effects, 2:642

p-Aminophenol, 2:643 chemical and physical properties, 2:643 exposure assessment, 2:643 guidelines of exposure, 2:644 production and use, 2:643 toxic effects, 2:643 experimental studies, 2:643-644 human experience, 2:644 pharmacokinetics, metabolism, and mechanisms, 2:644 o-Aminophenol methyl ether. See o-Anisidine Aminophenols, 2:641 N-(4-Aminophenyl)aniline. See 4-Aminodiphenylamine 4-Aminophenyl ether, 2:681. See also 4,4'-Oxydianiline chemical and physical properties, 2:681 guidelines of exposure, 2:682 production and use, 2:681 toxic effects, 2:681-682 3-Aminophenylmethane. See m-Toluidine 2-Amino-3-picoline. See Aminopicolines 2-Amino-4-picoline. See Aminopicolines 2-Amino-5-picoline. See Aminopicolines 2-Amino-6-picoline. See Aminopicolines Aminopicolines, 2:812 chemical and physical properties, 2:813 production and use, 2:813 toxic effects, 2:813 acute toxicity, 2:813 experimental studies, 2:813 genetic and related cellular effects studies, 2:813 reproductive and developmental, 2:813 Aminoplastics, 4:1016 1-Aminopropane. See n-Propylamine 2-Aminopropane. See Isopropylamine 1-Amino-2-propanol. See Monoisoprpanolamine 1-Aminopropan-2-ol. See Monoisoprpanolamine DL-1-Amino-2-propanol. See Monoisoprpanolamine 3-Aminopropionitrile chemical and physical properties, 2:950t-951t, 2:977 toxic effects, 2:977 3-Aminopropylene. See Allylamine Aminopyridines, 2:808 chemical and physical properties, 2:809 environmental impact, studies on, 2:811, 2:812 exposure assessment, 2:809 human experience, 2:810, 2:811 production and use, 2:809 standards, regulations, or guidelines of exposure, 2:811 toxic effects, 2:809 acute toxicity, 2:809, 2:810 experimental studies, 2:809 genetic and related cellular effects studies, 2:810 pharmacokinetics, metabolism, and mechanisms, 2:810 2-Aminotoluene. See o-Toluidine 4-Aminotoluene. See p-Toluidine m-Aminotoluene. See m-Toluidine 3-Amino-p-toluidine. See 2,4-Toluenediamine 5-Amino-o-toluidine. See 2,4-Toluenediamine Aminotriazole carcinogenesis, 2:748

Aminotriazole (Continued) chemical and physical properties, 2:746 environmental impact studies, 2:749-750 exposure assessment, 2:746 exposure standards, 2:749 genetic and cellular effects, 2:748-749 mutagenicity tests with, 2:749t pharmacokinetics, metabolism, and mechanisms, 2:747-748 production and use, 2:746 reproductive and developmental effects, 2:748 toxic effects acute toxicity, 2:746-747 experimental studies, 2:746-749 human experience, 2:749 subchronic and chronic toxicity, 2:747 Aminoundecanoic acid. See 11-Aminoundecanoic acid 11-Aminoundecanoic acid, 2:474 chemical and physical properties, 2:474 guidelines of exposure, 2:474 production and use, 2:474 toxic effects, 2:474 11-Aminoundecyclic acid. See 11-Aminoundecanoic acid 2-Amino-1,4-xylene. See 2,5-Xylidine 2-Amino-p-xylene. See 2,5-Xylidine 4-Amino-1,3-xylene. See 2,4-Xylidine 4-Amino-m-xylene. See 2,4-Xylidine 5-Amin-o-toluidine. See 2,4-Toluenediamine Ammonia, basicity, 2:434 Ammonium chloride, 1:1073 Ammonium molybdate (AM), 1:576 Ammonium monosulfide. See Ammonium sulfide Ammonium perchlorate, 1:1081 chemical and physical properties, 1:1081-1082 production and use, 1:1082 toxic effects. 1:1082-1083 Ammonium sulfide chemical and physical properties, 5:141 exposure assessment, 5:142 guidelines of exposure, 5:142 human experience, 5:142 physical and chemical properties of, 5:141t production and use, 5:141 toxic effects. 5:142 Ammonium sulfide (solution). See Ammonium sulfide Ammonium tetrachloropalladate(II) carcinogenesis, 1:704 chronic and subchronic toxicity, 1:700-701 exposure assessment in air, 1:700 in background levels, 1:700 biomonitoring/biomarkers, 1:700 community methods, 1:700 workplace methods, 1:700 genetic and related cellular effect studies, 1:704 hygienic standards, regulations, or guidelines of exposure, 1:705 neurological, pulmonary, and skin sensitization allergic effects, 1:704 irritating effects, 1:704 pharmacokinetics, metabolism, and mechanisms

absorption, 1:701-703 distribution. 1:703 excretion, 1:703 mechanisms, 1:703-704 physical and chemical properties, 1:699-700, 1:699t production and use, 1:700 reproductive and developmental effects, 1:704 toxic effects, 1:700-705 experimental studies, 1:700-704 human experience, 1:704-705 Amorphous silica, 5:192 chemical and physical properties, 5:193 production and use, 5:193 toxicity, 5:193-194 Amosite. See Asbestos Amphibole. See Asbestos Amprolene. See Ethylene oxide i-Amyl acetate. See Isoamyl acetate Amyl acetate (common). See Isoamyl acetate Amyl acetate ester. See Isoamyl acetate Amyl acetic ester. See n-Amyl acetate Amyl acetic ether. See n-Amyl acetate DL-sec-Amyl alcohol. See 2-Pentanol n-Amyl alcohol. See 1-Pentanol tert-Amyl alcohol, 3:961 chemical and physical properties, 3:961-962 exposure assessment, 3:962 guidelines of exposure, 3:963 production and use, 3:962 toxic effects experimental effects, 3:962-963 human experience, 3:963 Amyl alcohols, 3:955-956 *n*-Amylamine, **2:**466 chemical and physical properties, 2:466 exposure assessment, 2:466 guidelines of exposure, 2:467 production and use, 2:466 toxic effects, 2:466-467 Amyl carbinol. See 1-Hexanol Amylene. See 1-Pentene α -N-Amylene. See 1-Pentene Amylene hydrate. See tert-Amyl alcohol Amylester kyseliny octove. See n-Amyl acetate Amylester kyseliny salicylove [Czech]. See Amyl salicylate Amylethylcarbinol. See 3-Octanol Amyl hydride. See n-Pentane tert-Amyl mercaptan animal and human studies, 4:1049 chemical and physical properties, 4:1049 *t*-Amyl methyl ether, **3:**612 chemical and physical properties, 3:612 toxic effects, 3:612 Amyl methyl ketone. See Methyl n-amyl ketone n-Amyl methyl ketone. See Methyl n-amyl ketone Amyl nitrate, 2:380 chemical and physical properties, 2:380 exposure assessment, 2:380 guidelines of exposure, 2:381

production and use, 2:380 toxic effects, 2:380-381 n-Amyl nitrate. See Amyl nitrate t-Amyl perbenzoate. See t-Amyl peroxybenzoate t-Amylperoctoate. See Peroxyhexanoic acid t-Amyl peroxybenzoate, 4:555 chemical and physical properties, 4:555 exposure assessment, 4:555 production and use, 4:555 toxic effects, 4:555 t-Amyl peroxy-2-ethylhexanoate. See Peroxyhexanoic acid t-Amyl peroxypivalate, 4:550 chemical and physical properties, 4:550 exposure assessment, 4:550 toxic effects, 4:550-551 Amyl salicylate, 4:165 chemical and physical properties, 4:166 toxic effects, 4:166 acute toxicity, 4:166 chronic and subchronic toxicity, 4:166 experimental studies, 4:166 Amyltriethoxy silanate. See Amyltriethoxy silane Amyltriethoxy silane, 4:411 chemical and physical properties, 4:411 toxic effects, 4:411 acute toxicity, 4:411 human experience, 4:411 Amyotrophic lateral sclerosis (ALS), 1:245, 1:375 Ancamine TL. See 4,4'-Methylenedianiline Anchoic acid. See Azelaic acid Andrussow process, 2:948 Angibid. See Nitroglycerin Angicap. See Pentaerythritol tetranitrate Angina/myocardial infarction (MI), 6:353 Angiolingual. See Nitroglycerin Angorin. See Nitroglycerin Anhydrol. See Ethanol Aniline, 2:551, 2:621 chemical and physical properties, 2:551, 2:622 exposure assessment, 2:552, 2:622 guidelines of exposure, 2:552, 2:623 production and use, 2:551-552, 2:622 toxic effects, 2:552 epidemiology studies, 2:623 experimental studies, 2:622 pharmacokinetics, metabolism, and mechanisms, 2:623 Aniline oil. See Aniline p-Anilinoaniline. See 4-Aminodiphenylamine; p-Aminodiphenylamine Anilinobenzene. See Diphenylamine Anilinoethane. See N-Ethylaniline Anilinomethane. See N-Methylaniline Anilinonaphthalene. See N-Phenyl-2-naphthylamine 2-Anilinonaphthalene. See N-Phenyl-2-naphthylamine Animal bioassays, 6:459 Animal carcinogenicity studies advantage of, 6:459 Animal systems LD₅₀ for selected organotin compounds, 1:367t

Animal tumor data, evaluations, 6:461 Anisic acid. See Salicylates 2-Anisidine. See o-Anisidine o-Anisidine, 2:578 chemical and physical properties, 2:578 exposure assessment, 2:578 guidelines of exposure, 2:578 toxic effects, 2:578 uses, 2:578 p-Anisidine, 2:579 chemical and physical properties, 2:579 exposure assessment, 2:579 guidelines of exposure, 2:579 production and use, 2:579 toxic effects, 2:579 Anisole chemical and physical properties, 3:620 exposure assessment, 3:620-621 toxic effects, 3:621 p-Anisylamine. See p-Anisidine A13-00525 [NLM]. See Methyl benzoate α -N-methyl-D-pyridylpyrrolidine. See Nicotine Annual limits of intake (ALI), 1:799 Annulene. See Benzene Anol. See Cyclohexanol Anone. See Cyclohexanone Anprolene. See Ethylene oxide Anproline. See Ethylene oxide Ansibase Red KB. See 5-Chloro-o-toluidine Ansul ether 121. See Ethylene glycol dimethyl ether Anthanthrene, 5:384 chemical and physical properties, 5:384 toxic effects, 5:384-385 Anthophyllite. See Asbestos Anthracene, 5:385 chemical and physical properties, 5:385 exposure assessment, 5:385 guidelines of exposure, 5:386 production and use, 5:385 toxic effects, 5:385-386 Anthracene oil. See Anthracene Anthracin. See Anthracene Anthracite. See Coal Anthranilicacid, methyl ester. See Methyl o-aminobenzoate Anthropogenic source of NO_x emissions, 1:969 Anticorrosion agent, 1:943 Antifertility agent, 2:724 Antifoam spray 260. See Silicones Antimony acute toxicity, 1:492-493, 1:494 carcinogenesis, 1:494, 1:496 chemical and physical properties odor and warning properties, 1:491 chronic and subchronic toxicity, 1:493, 1:496 clinical cases, 1:494-496 exposure assessment in air, 1:492 in background levels, 1:492 biomonitoring/biomarkers, 1:492

Antimony (Continued) in blood. 1:492 community methods, 1:492 in urine, **1:**492 workplace methods, 1:492 genetic and related cellular effects studies, 1:494, 1:496 pharmacokinetics, metabolism, and mechanisms, 1:495-496 absorption, 1:493 distribution, 1:493 excretion, 1:493-494 production and use, 1:491-492 reproductive and developmental studies, 1:494, 1:496 standards, regulations, or guidelines of exposure, 1:497 studies on environmental impact, 1:497 toxic effects, 1:492-497 epidemiology studies., 1:496-497 experimental studies, 1:492-494 human experience, 1:494-497 Antimony dermatosis, 1:495 Antimony trichloride toxicity, acute, 1:494 toxicity, chronic, 1:495 Antimony trioxide, 1:491, 1:493 Antimony trisulfide toxicity, acute, 1:492 toxicity, chronic, 1:493 Antineoplastic agents tris(2-chloroethyl) amine, 2:721 Antinonin. See 4,6-Dinitro-o-cresol Antinonnin. See 4,6-Dinitro-o-cresol Antioxidant 116. See N-Phenyl-2-naphthylamine Antioxidant N-acetyl-L-cysteine, 1:435 Antioxidant PBN. See N-Phenyl-2-naphthylamine Antisal la. See Toluene Antora. See Pentaerythritol tetranitrate Anyvim. See Aniline 2-AP. See Aminopyridines 4-AP. See Aminopyridines APCO 2330. See 1,3-Phenylenediamine; m-Phenylenediamine Apolipoprotein B (ApoB), 6:356 Apoptosis, 1:298, 1:524, 1:861 inducing factors, 1:478 APPA. See Phosmet α -Propylene chlorohydrin. See Propylene chlorohydrin Aquachloral. See Chloral hydrate Aquacide I, calbiochem. See Sodium carboxymethyl cellulose Aquacide II, calbiochem gum. See Sodium carboxymethyl cellulose Aquacide II, cellulose gum. See Sodium carboxymethyl cellulose Aqualine. See Acrolein Aqua regia, 1:93, 1:361, 1:429, 1:689, 1:706, 1:710, 1:711, 1:801 Aquinite. See Trichloronitromethane Arabidopsis thaliana, 1:146, 1:885 Aracet apv. See Polyvinyl alcohol Arachidonic acid, 3:562 chemical and physical properties, 3:563 guidelines of exposure, 3:566 production and use, 3:563 toxic effects

experimental studies, 3:563-566 human experience, 3:566 Araldite 6005. See p-(t-Butyl)phenyl glycidyl ether Araldite Hardener 972. See 4,4'-Methylenedianiline Araldite RD-1. See n-Butyl glycidyl ether Araldite RD-2. See 1,4-Butanediol diglycidyl ether Argyria, 1:75, 1:77, 1:79, 1:81, 1:85-87, 1:91, 1:96 Argyrosis. See Argyria Aromatic amines, 2:609 aniline and derivatives, 2:621 biomonitoring, 2:612-613 environmental exposure, 2:612 hemoglobin (Hb) adducts, 2:613 occupational exposure, 2:611-612 toxicity, 2:613 carcinogenicity, 2:613-615 glutathione S-transferase (GST), 2:619 mechanism of action, 2:620-621 metabolic pathways, 2:619 metabolic polymorphism, role of, 2:618-620 methemoglobinemia, 2:615-616 mutagenicity, 2:617 skin sensitization/contact dermatitis, 2:617-618 teratogenicity and reproductive toxicity, 2:616-617 toxicokinetics, 2:618–620 UDP-glucuronosyltransferases (UGTs), 2:619 U.S. production/import volume ranges of, 2:610-611 Aromatic amino compounds, 2:517 carcinogenesis, 2:520 cellular effects studies, 2:523 chemical and physical properties, 2:518 environmental impact, studies, 2:513 MAK system, 2:521 National Toxicology Program (NTP), 2:520 P450 enzymes, 2:519 reproductive and developmental, 2:522-523 Salmonella system, 2:522 toxic effects, 2:518-524 Aromatic compounds, 2:221 Aromatic ethers, 3:620 Aromatic extracts, 5:353 Aromatic/heterocyclic aldehydes physical and chemical properties of, 3:706t toxic effects of, 3:707t-709t Aromatic hydrocarbons, 2:221 Aromatic nitro compounds toxic properties of, 2:517 Aromatic petroleum naphthas, 5:347 guidelines of exposure, 5:347 production and use, 5:347 toxic effects, 5:347 Aromatic polyamides, 4:958 chemical and physical properties, 4:958 guidelines of exposure, 4:959 production and use, 4:958 toxic effects experimental studies, 4:958-959 human experience, 4:959 Arosol. See Ethylene glycol monophenyl ether

Arousal theory, 6:342 Arsenic, 1:38, 1:475 absorption, 1:278, 1:479 in brain and blood, 1:272 dermal effects, 1:481 dietary, 1:269 distribution, 1:479 in drinking water, 1:477, 1:483, 1:484 exposure, 1:137, 1:195, 1:200, 1:268 on cardiovascular system, 1:484-485 loss of appetite and liver toxicities, 1:482 fish, 1:477 in hair, 1:269 in lung, 1:273 in seafood, 1:269, 1:477 toxic effects, 1:478-479 in urine, 1:268, 1:269, 1:274, 1:477, 1:486 uses, 1:481 Arsenical-induced toxicity mechanisms, 1:478f Arsenical ores, 1:644 Arsenic oxide (As₂O₃), 1:475 Arsenic trichloride, 1:475–476 Arsenic trioxide, 1:271, 1:475 Arseno-beta lactone, 1:477 Arsenolysis, 1:274 Arsine acute toxicity, 1:478, 1:481, 1:485 carcinogenesis, 1:480, 1:484, 1:487-489 chemical and physical properties, 1:476, 1:476t odor and warning properties, 1:476 chronic and subchronic toxicity, 1:478-479, 1:481-482, 1:485-487 clinical cases, 1:481 dermal effects, 1:481, 1:485 exposure assessment, 1:477-478 in air, 1:477 in background levels, 1:477 biomonitoring/biomarkers, 1:477 in blood, 1:477 community methods, 1:477 in urine. 1:477 workplace methods, 1:477 gastrointestinal disturbances, 1:481-482, 1:485 genetic and related cellular effects studies, 1:480, 1:484, 1:489-490 hematological aspects, 1:482, 1:485 internal cancers, 1:487-488 mucous membrane effects, 1:481 neurological effects, 1:482, 1:485 neurological, pulmonary, and skin sensitization, 1:480-481, 1:490 pharmacokinetics, metabolism, and mechanisms, 1:479-480, 1:482-484, 1:485-486 absorption, 1:479 distribution. 1:479-480 excretion, 1:480 production and use, 1:476 pulmonary, and skin sensitization, 1:484-485 reproductive and developmental studies, 1:480, 1:484, 1:486-487 skin cancers, 1:489

standards, regulations, or guidelines of exposure, 1:490-491 studies on environmental impact, 1:491 toxic effects, 1:478-490 epidemiology studies, 1:485-490 experimental studies, 1:478-481 human experience, 1:481-485 Arterial gas embolism (AGE), 6:298 Artificial almond oil. See Benzaldehyde Artificial ant oil. See Furfural Artificial bitter almond oil. See Benzaldehyde Artificial essential oil of almond. See Benzaldehyde Artificial oil of ants. See Furfural Arylamine. See Aniline Aryl phosphates, 4:383 Asbestos, 5:211 chemical and physical properties, 5:212-213 clearance in experimental animals, 5:219t-220t environmental impact, studies, 5:245-246 exposure assessment, 5:214-217 genotoxicity, in vitro studies, 5:228t guidelines of exposure, 5:244-245 ingestion studies, 5:227t intrapleural/intraperitoneal injection studies, 5:225t-226t intratracheal injection fibrocity studies, 5:222t intratracheal/intrabronchial injection carcinogenicity studies, 5:223t latency, progression, 5:234-235 long-term inhalation studies, 5:221t-222t lung cancers, 5:236-237, 5:238, 5:239t mortality ratios, 5:238t mesothelioma, 5:236-238 mineral group, 5:212t nonrespiratory cancers, 5:244 pleural involvement, 5:234 pleural plaques, asbestosis, and cancer, 5:235-236 pleural plaques to cancer, 5:238-239 production and use, 5:213-214 toxic effects, 5:217-224, 5:239 amosite, 5:241-242 anthophyllite, 5:241 chrysotile, 5:242-243 chrysotile and tremolite, 5:243-244 crocidolite, 5:241 experimental studies, 5:218-224 human experience, 5:224-244 tremolite, 5:243 Asbestos fiber. See Asbestos Asbestos Hazard Emergency Response Act of 1986 (AHERA), 5:22 Asbestos products end uses, 5:215t U.S. bans, 5:216t AS 61CL. See Styrene-acrylonitrile (SAN) Aseptoform butyl. See Butyl paraben Asphalt, 5:357 chemical and physical properties, 5:357-358 exposure assessment, 5:358-359 guidelines of exposure, 5:359-360 production and use, 5:358 toxic effects, 5:359

Asphalt (petroleum). See Asphalt Asphalt fumes. See Asphalt Asphalt, syrian. See Asphalt Asphaltum. See Asphalt Aspiral. See Isoamyl nitrite Aspirin, 5:1 Aspirols. See Amyl nitrate Association of Official Analytical Chemists, 2:735 Astatine, 1:1097 chemical and physical properties, 1:1097-1098 ASTM classifications, tin for commercial purpose, 1:362 Astral oil. See Kerosene Atactic polystyrene. See Polystyrene Atmospheric lifetime (AL), 3:360t Atomic absorption spectroscopy (AAS), 1:169, 1:357, 1:364, 1:386, 1:444, 1:477, 1:567, 1:587, 1:610, 1:645, 1:655, 1:677, 1:700, 1:823 Atomic Energy Commission (AEC), 1:1, 1:118, 1:137, 1:772, 5:13 ATPase enzymes, 1:530 ATP7B gene, 1:375 Atrazine, 2:834 chemical and physical properties, 2:835 environmental impact, studies, 2:839-840 exposure assessment, 2:835 guidelines of exposure, 2:839 production and use, 2:835 toxic effects, 2:835 carcinogenesis, 2:838 cellular effects studies, 2:839 chronic and subchronic toxicity, 2:836 experimental studies, 2:835 human experience, 2:839 pharmacokinetics, metabolism, and mechanisms, 2:836-837 reproductive and developmental., 2:837-838 ATSDR ToxGuides, 5:64 Attapulgite, 5:195 chemical and physical properties, 5:195 exposure assessment, 5:196 guidelines of exposure, 5:196 production and use, 5:196 toxicity, 5:196 Attention deficit hyperactivity disorder (ADHD), 1:51, 1:411, 1:620, 1:621 Auger electron emission, 1:4 Aurothioglucose properties, 1:93t toxicity, 1:103 Avical. See Pentachloronitrobenzene Avicol. See Pentachloronitrobenzene Axonal swellings, 1:874 Axonal transport process, 1:73 9-Azaanthracene. See Acridine; Benz[a] acridine 10-Azaanthracene. See Acridine; Benz/a/ acridine 7-Azabenz/a/anthracene. See Benz/a/acridine 12-Azabenz[a]anthracene. See Benz[c]acridine Azabenzene. See Pyridine 7-Azadibenz(c,h)anthracene. See Dibenzacridines 1-Azanaphthalene. See Quinoline

Azbolen asbestos. See Asbestos Azelaic acid. 3:522 chemical and physical properties, 3:522 exposure assessment, 3:522 guidelines of exposure, 3:523 production and use, 3:522 toxic effects experimental studies, 3:522-523 human experience, 3:523 Azelaic acid, bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) azelate Azelaic acid dibutyl ester. See Dibutyl azelate Azelaic acid, di(2-ethylhexyl) ester. See Di(2-ethylhexyl) azelate Azelates, toxicity of, 4:214t Azides, 2:857 chemical and physical properties, 2:857 exposure assessment, 2:857 guidelines of exposure, 2:860 production and use, 2:857 toxic effects, 2:857-860 Azimethylene. See Diazomethane Azine. See Pyridine Azinphos-methyl, 4:1097 chemical and physical properties, 4:1097 exposure assessment, 4:1097-1098 guidelines of exposure, 4:1102 production and use, 4:1097 toxic effects experimental studies, 4:1098-1101 human experience, 4:1101-1102 Azoamine Red 2H. See 4-Nitroaniline; p-Nitroaniline Azobase MNA. See 3-Nitroaniline; m-Nitroaniline Azo Dye N5. See Ethyl cellulose Azoene fast blue base. See 3,3'-Dimethoxybenzidine Azoene fast orange GR base. See 2-Nitroaniline; o-Nitroaniline Azoene fast orange GR salt. See 2-Nitroaniline; o-Nitroaniline Azoene fast red 3GL base. See 4-Chloro-2-nitroaniline Azoene fast red 3GL salt. See 4-Chloro-2-nitroaniline Azoene fast red KB base. See 5-Chloro-o-toluidine Azoene fast red TR base. See 4-Chloro-o-toluidine Azoene fast scarlet 2G base. See 2.5-Dichloroaniline Azoene fast scarlet GC base. See 5-Nitro-o-toluidine Azoene fast scarlet GC salt. See 5-Nitro-o-toluidine Azofix orange GR salt. See 2-Nitroaniline; o-Nitroaniline Azofix red GG salt. See p-Nitroaniline Azo-fix red GG salt. See 4-Nitroaniline Azofix red 3GL salt. See 4-Chloro-2-nitroaniline Azofix scarlet G salt. See 5-Nitro-o-toluidine Azogen developer H. See 2,4-Toluenediamine Azogene fast blue B. See 3,3'-Dimethoxybenzidine Azogene fast orange GR. See 2-Nitroaniline; o-Nitroaniline Azogene fast scarlet G. See 5-Nitro-o-toluidine Azoic diazo component 6. See 2-Nitroaniline; o-Nitroaniline Azoic diazo component 9. See 4-Chloro-2-nitroaniline Azoic diazo component 32. See 5-Chloro-o-toluidine Azoic diazo component 37. See 4-Nitroaniline; p-Nitroaniline Azol. See 4-Aminophenol Azosalt R. See 4-Aminodiphenylamine; p-Aminodiphenylamine Aztec BPO. See Dibenzoyl peroxide

B-1,776. See Tribufos BA. See Benz/a/anthracene Babbitt alloys, 1:363 Bacillus anthracis scanning electron micrograph of, 5:510f Bacticin. See Tetralin Bactolatex. See Polystyrene Baddeleyite, 1:438, 1:448t, 1:456 BADGE. See Bisphenol A diglycidyl ether Bagolax. See Methylcellulose Bakelite RMD 4511. See Styrene-acrylonitrile (SAN) Bakelite smd 3500. See Polystyrene Baker's asthma, 5:133 Baker's P. See Phenol BALB/c cells transformation. 2:756 BALB/3T3 malignant cell transformation assay, 2:741 Banana oil. See n-Amyl acetate; Isoamyl acetate Baritrate. See Pentaerythritol tetranitrate Barium, 1:154 chemical and physical properties, 1:155 exposure assessment, 1:155-156 air. 1:155 background levels, 1:155 biomonitoring/biomarkers, 1:155-156 community methods, 1:155 workplace methods, 1:155 production and use, 1:155 toxic effects, 1:156 epidemiology studies, 1:158 experimental studies, 1:156-157 human experience, 1:157-158 standards, regulations, or guidelines of exposure, 1:158 Barolub FTA. See Stearic acid Basf iii. See Polystyrene BASF Ursol BG. See 3-Aminophenol BASF Ursol D. See 1,4-Phenylenediamine BASF Ursol 3GA. See 2-Aminophenol; o-Aminophenol BASF Ursol P Base. See 4-Aminophenol Batrilex. See Pentachloronitrobenzene Bauxite mining, 1:231-232 Bayer process, 1:232 Bayol 55. See White oils Bayol f. See White oils BBC 12. See 1,2-Dibromo-3-chloropropane β,β' -Dichlorodiisopropyl ether. See Dichloroisopropyl ether β , β' -Dichloroethyl ether. See Dichloroethyl ether BBP. See Butyl benzyl phthalate β-Chloroethyl alcohol. See 2-Chloroethanol β-Chloropropyl alcohol. See Propylene chlorohydrin BCME. See Bis(chloromethyl) ether 1,4-BDDGE. See 1,4-Butanediol diglycidyl ether BDE DEB. See Butadiene diepoxide BDGA. See Diethylene glycol mono-n-butyl ether acetate BDGE. See Diethylene glycol mono-n-butyl ether Bdh 29-790. See Polystyrene Bearing metal, 1:363 Becquerel (Bq), 1:5 Beechwood creosote. See Wood creosote

3-02-00-00769 [Beilstein]. See Glyceryl triheptanoate 3-02-00-00859 [Beilstein]. See Glyceryl triundecanoate 3-02-00-01925[Beilstein]. See Dipentyl maleate 4-02-00-00253 [Beilstein]. See Glyceryl triacetate 4-02-00-00717 [Beilstein]. See Glyceryl tripropionate 4-02-00-00799 [Beilstein]. See Glyceryl tributyrate 4-02-00-00926[Beilstein]. See Glyceryl trihexanoate 4-02-00-01021 [Beilstein]. See Glyceryl trinonanoate 4-02-00-01047 [Beilstein]. See Glyceryl tridecanoate 4-02-00-01848 [Beilstein]. See Diethyl oxalate 4-02-00-01914 [Beilstein]. See Diethyl succinate 4-02-00-01916 [Beilstein]. See n-Dibutyl succinate; Dipropyl succinate 4-02-00-02080 [Beilstein]. See Diethyl sebacate 4-02-00-02081 [Beilstein]. See Dibutyl sebacate 4-02-00-02083 [Beilstein]. See Di(2-ethylhexyl) sebacate 4-02-00-02204 [Beilstein]. See Dimethyl maleate 4-02-00-02207 [Beilstein]. See Diethyl fumarate; Diethyl maleate 4-02-00-02209 [Beilstein]. See Dibutyl maleate; Diisopropyl fumarate 4-02-00-02210 [Beilstein]. See n-Dibutyl fumarate 4-02-00-02211 [Beilstein]. See Di(2-ethylhexyl) fumarate 4-02-00-02211[Beilstein]. See Di(2-ethylhexyl) maleate 4-02-00-009991[Beilstein]. See Glyceryl trioctanoate 4-06-00-05672 [Beilstein]. See Resorcinol monoacetate 4-06-00-05673 [Beilstein]. See Resorcinol diacetate 4-09-00-00289 [Beilstein]. See Isopropyl benzoate 4-09-00-00290 [Beilstein]. See Butyl benzoate 4-09-00-00293 [Beilstein]. See Hexyl benzoate 4-09-00-00295 [Beilstein]. See Vinyl benzoate 4-09-00-00307 [Beilstein]. See Benzyl benzoate 4-09-00-00372 [Beilstein]. See Resorcinol dibenzoate; Resorcinol monobenzoate 4-09-00-02010 [Beilstein]. See Linayl cinnamate 4-09-00-03241 [Beilstein]. See Dimethoxyethyl phthalate 4-10-00-00143 [Beilstein]. See Salicylates 4-10-00-00149 [Beilstein]. See Ethyl salicylate 4-10-00-00153 [Beilstein]. See Amyl salicylate 4-10-00-00154 [Beilstein]. See Phenyl salicylate 4-10-00-00360 [Beilstein]. See Methyl paraben 4-10-00-00367 [Beilstein]. See Ethyl paraben 4-10-00-00374 [Beilstein]. See Propyl paraben 4-10-00-00375 [Beilstein]. See Butyl paraben 4-10-00-02005 [Beilstein]. See Octyl gallate 4-10-00-02006 [Beilstein]. See Dodecyl gallate 4-14-00-01008 [Beilstein]. See Methyl o-aminobenzoate 4-14-00-01128 [Beilstein]. See Methyl p-aminobenzoate 4-14-00-01129 [Beilstein]. See Ethyl p-aminobenzoate 4-14-00-01130 [Beilstein]. See Butyl p-aminobenzoate; Propyl *p*-aminobenzoate 4-14-00-01138 [Beilstein]. See 2-(Diethylamino) ethyl *p*-aminobenzoate 1,2-Benanthrene. See Benz[a]anthracene Benchmark dose (BMD) approach, 5:112 example of, 5:113f Benchmark doses (BMDs), 1:616 Benjamin. See Benzene Benomyl, 2:759–760 Benoxyl. See Dibenzoyl peroxide

Bensulide, 4:1102 chemical and physical properties, 4:1102 exposure assessment, 4:1102-1103 guidelines of exposure, 4:1105 production and use, 4:1102 toxic effects, 4:1103-1105 Benz[7,8]aceanthrylene. See Benz[j]aceanthrylene Benz[*j*]aceanthrylene, 5:386 chemical and physical properties, 5:386 toxic effects, 5:386 Benz[l]aceanthrylene, 5:386 chemical and physical properties, 5:387 toxic effects, 5:387 3,4-Benz[e]acephenanthrylene. See Benzo[b]fluoranthene 1,2-Benzacephthalene. See Fluoranthene 1,2-Benzacridine. See Benz[a]acridine 3,4-Benzacridine. See Benz[c]acridine Benz[a]acridine, 5:421 Benz[c]acridine, 5:421 Benzagel 10. See Dibenzoyl peroxide Benzaken. See Dibenzoyl peroxide Benzaknew. See Dibenzoyl peroxide Benzaldehyde, 3:712 chemical and physical properties, 3:712 exposure assessment, 3:712 production and use, 3:712 toxic effects, 3:712 Benzamine. See Aniline Benz[a]anthracene, 5:387 chemical and physical properties, 5:387-388 exposure assessment, 5:388 guidelines of exposure, 5:389 production and use, 5:388 toxic effects, 5:388-389 1,2-Benzanthracene, 1,2-benz[a] anthracene. See Benz[a] anthracene Benz[*a*]anthracene,1,12-methylene-. *See* 11H-Benz[*b*,*c*] aceanthrylene Benzanthrene. See Benz[a]anthracene 1-Benzazine. See Quinoline 1,2-Benzcarbazole. See 11H-Benzo[a]carbazole 3,4-Benzcarbazole. See 7H-Benzo[c]carbazole Benzcatechin. See Pyrocatechol Benz[def]chrysene. See Benzopyrenes Benzene, 2:153, 6:460. See Methylisoeugenol chemical and physical properties, 2:154 environmental impact, studies, 2:180 guidelines of exposure, 2:180 production and use, 2:154 sources of exposure, 2:154-158 toxic effects, 2:158-180 acute lymphatic leukemia, 2:167 acute myelogenous leukemia, 2:167-169 acute toxicity, 2:158 animal toxicity studies, 2:159 carcinogenesis, 2:161 case reports, 2:166-167 cellular effects studies, 2:161 childhood exposures, 2:175-176

childhood leukemia, 2:173, 2:176-177 chronic lymphatic leukemia, 2:171-172 chronic myelogenous leukemia, 2:169-170 chronic toxicity, **2:**162 gasoline exposure, 2:177-178 human chronic exposure, 2:163-165 inhalation exposure, 2:158 maternal exposure, 2:173-174 multiple myeloma risk, 2:172-173 neurological, pulmonary, and skin sensitization, 2:161 non-Hodgkin's lymphomas, 2:170-171 paternal exposure, 2:174-175 pharmacokinetics, metabolism, and mechanisms, 2:160, **2:**178–179 risk of lymphohematopoietic diseases, 2:178 Benzeneazodimethylaniline. See 4-Dimethylaminoazobenzene Benzenecarbinol. See Benzyl alcohol Benzenecarbonal. See Benzaldehyde Benzenecarboxaldehyde. See Benzaldehyde 1,2-Benzenediamine. See 1,2-Phenylenediamine; o-Phenylenediamine 1,3-Benzenediamine. See 1,3-Phenylenediamine Benzenediamine-1,3. See 1,3-Phenylenediamine; m-Phenylenediamine 1,4-Benzenediamine. See 1,4-Phenylenediamine m-Benzenediamine. See 1,3-Phenylenediamine p-Benzenediamine. See 1,4-Phenylenediamine 1,2-Benzenedicarboperoxoic acid. See Di-t-butyl diperoxyphthalate 1,2-Benzenedicarboxylic acid, bis(2-butoxyethyl) ester. See Dibutoxyethyl phthalate 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) phthalate 1,2-Benzenedicarboxylic acid, bis(2-methoxyethyl) ester. See Dimethoxyethyl phthalate 1,2-Benzenedicarboxylic acid, bis(2-methylpropyl) ester. See Diisobutyl phthalate 1,2-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester. See Phthalic acid diglycidyl ester 1,2-Benzenedicarboxylic acid, bis(2-propylheptyl) ester. See Di(2-propylheptyl) phthalate 1,2-Benzenedicarboxylic acid 2-butoxy-2-oxoethyl butyl ester. See Butyl phthalyl butyl glycolate 1,2-Benzenedicarboxylic acid butyl hydroxyacetic acid butyl ester. See Butyl phthalyl butyl glycolate 1,2-Benzenedicarboxylic acid, butyl phenylmethylester. See Butyl benzyl phthalate 1,2-Benzenedicarboxylic acid, dibutoxyethyl ester. See Dibutoxyethyl phthalate 1,2-Benzenedicarboxylic acid, dibutyl ester. See n-Dibutyl phthalate 1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich. See Diisononyl phthalate 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters. See Di-C7-11-phthalate 1,2-Benzenedicarboxylic acid, di-C9-11-branched and linear alkyl esters. See Di-C9-11 phthalate 1,2-Benzenedicarboxylic acid, di-C9-C11 branched alkyl esters, C10 rich. See Diisodecyl Phthalate

- 1,2-Benzenedicarboxylic acid, diethoxyethyl ester. *See* Diethoxyethyl phthalate
- 1,2-Benzenedicarboxylic acid, diethyl ester. See Diethyl phthalate
- 1,2-Benzenedicarboxylic acid, diheptyl ester. *See n*-Diheptyl phthalate
- 1,2-Benzenedicarboxylic acid, dihexyl ester. *See* Diisohexyl phthalate
- 1,2-Benzenedicarboxylic acid, diisooctyl ester. See Diisooctyl phthalate
- 1,2-Benzenedicarboxylic acid, diisoundecyl ester. *See* Diisoundecyl phthalate
- 1,2-Benzenedicarboxylic acid, dimethoxyethyl ester. *See* Dimethoxyethyl phthalate
- 1, 2-Benzenedicarboxylic acid, dimethyl ester. *See* Dimethyl phthalate
- 1,4-Benzenedicarboxylic acid, dimethyl ester. *See* Dimethyl terephthalate
- 1,2-Benzenedicarboxylic acid dinonyl ester. *See n*-Dinonyl phthalate
- 1,2-Benzenedicarboxylic acid, dioctyl ester. *See n*-Dioctyl phthalate
- 1,2-Benzenedicarboxylic acid, di-2-propenyl ester (9CI). *See* Diallyl phthalate
- 1,2-Benzenedicarboxylic acid ditridecyl ester. *See* Diisotridecyl phthalate
- 1,2-Benzenedicarboxylic acid, diundecyl ester. *See n*-Diundecyl phthalate
- 1,2-Benzenedicarboxylic acid, 2-ethoxy-2-oxoethyl ethyl ester. See Ethyl phthalyl ethyl glycolate
- 1,2-Benzenedicarboxylic acid 2-ethoxy-2-oxoethyl methyl ester. *See* Methyl phthalyl ethyl glycolate
- 1,2-Benzenedicarboxylic acid ethyl hydroxyactetic acid ethyl ester. See Ethyl phthalyl ethyl glycolate
- 1,2-Benzenedicarboxylic acid, hexyl ester, DnC6P. *See n*-Dihexyl phthalate
- 1,2-Benzenedicarboxylic acid methyl hydroacetic acid ethyl ester. *See* Methyl phthalyl ethyl glycolate
- 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters. *See* Di-hexyl-octyl-decyl phthalate
- 1,2-Benzenediol. See Pyrocatechol
- 1,3-Benzenediol. See Resorcinol
- 1,4-Benzenediol. See Hydroquinone
- o-Benzenediol. See Pyrocatechol
- 1,3-Benzenediol, diacetate. See Resorcinol diacetate
- 1,3-Benzenediol, dibenzoate. See Resorcinol dibenzoate
- 1,3-Benzenediol, monoacetate. See Resorcinol monoacetate
- 1,3-Benzenediol, monobenzoate. See Resorcinol monobenzoate
- Benzene, -ethenyl, cinnamene. See Styrene
- Benzene ethenyl-homopolymer. See Polystyrene
- Benzene hexachloride, 3:429. See also Lindane
- Benzene hexahydride. See Cyclohexane
- Benzenemethanol. See Benzyl alcohol
- Benzenemethylal. See Benzaldehyde
- Benzenepropenoic acid. See Cinnamic acid
- Benzenetriol. See Pyrogallol
- 1,2,3-Benzenetriol. See Pyrogallol
- Benzenol. See Phenol
- 1,2-Benzfluoranthene: *See* Benzo[*a*]fluoranthene; Benzo[*ghi*] fluoranthene; Benzo[*k*]fluoranthene

2,3-Benzfluoranthene. See Benzo[b]fluoranthene 3,4-Benzfluoranthene. See Benzo[b]fluoranthene 7,8-Benzfluoranthene. See Benzo[j]fluoranthene Benzidam. See Aniline Benzidine, 2:583, 2:672 chemical and physical properties, 2:583, 2:672 exposure assessment, 2:583, 2:672 guidelines of exposure, 2:584, 2:674 production and use, 2:583, 2:672 toxic effects, 2:583-584, 2:672-673 p-Benzidine. See Benzidine Benzidine base. See Benzidine Benzimidazole fungicides, acute toxicity, 2:762t Benzine. See Benzene; Petroleum ether Benzinoform, carbon chloride. See Carbon tetrachloride Benzite. See Trinitrobenzene Benzo[a]aceanthrylene. See Benzo[a]fluoranthene; Benzo[ghi] fluoranthene; Benzo[k]fluoranthene 1,2-Benzoacenaphthylene. See Fluoranthene Benzo[*a*]anthracene. See Benz[*a*]anthracene Benzo[a,h]anthracene, DBA. See Dibenz[a,h]anthracene Benzo(a)pyrene (BaP), 1:360 Benzoate de methyle [French]. See Methyl benzoate Benzoates, 4:147 physical and chemical properties, 4:148 toxicity of, 4:149, 4:150 Benzoato de metilo [Spanish]. See Methyl benzoate Benzo[b]pyridine. See Quinoline Benzocaina. See Ethyl p-aminobenzoate Benzocainum. See Ethyl p-aminobenzoate 2,3-Benzochrysene. See Benzo[b]chrysene Benzo[a]chrysene. See Picene Benzo[b]chrysene, 5:389 chemical and physical properties, 5:389 exposure assessment, 5:389 toxic effects, 5:389, 5:390 15,16 Benzodehydrocholanthrene. See Naphthofluoranthenes 1,3-Benzodioxole-5-carboxaldehyde. See Piperonal 1,2-Benzofluoranthene. See Benzo[a]fluoranthene; Benzo[ghi] fluoranthene; Benzo[k]fluoranthene 3.4-Benzofluoranthene. See Benzo[b]fluoranthene 10,11-Benzofluoranthene. See Benzo[j]fluoranthene Benzo-12,13-fluoranthene. See Benzo[j]fluoranthene Benzo[a]fluoranthene, 5:390 chemical and physical properties, 5:390 toxic effects, 5:390 Benzo[b]fluoranthene, 5:390 chemical and physical properties, 5:390 toxic effects, 5:390 Benzo[e]fluoranthene. See Benzo[b]fluoranthene Benzo[ghi]fluoranthene, 5:391 chemical and physical properties, 5:391 toxic effects, 5:391 Benzo[*j*]fluoranthene, **5:**391 chemical and physical properties, 5:391 toxic effects. 5:391 Benzo[k]fluoranthene, 5:391

chemical and physical properties, **5:**392 toxic effects, **5:**392

1,2-Benzofluorene. See Benzo[a]fluorene 2,3-Benzofluorene. See Benzo[b]fluorene 3,4-Benzofluorene. *See* Benzo[*c*]fluorene Benzo[*a*]fluorene, **5:**392 chemical and physical properties, 5:392 toxic effects, 5:392 Benzo[b]fluorene, 5:392 chemical and physical properties, 5:393 toxic effects, 5:393 Benzo[c]fluorene, 5:393 chemical and physical properties, 5:393 toxic effects, 5:393 Benzo[jk] fluorine. See Fluoranthene Benzofur D. See 1.4-Phenylenediamine Benzofur GG. See 2-Aminophenol; o-Aminophenol Benzofur MT. See 2,4-Toluenediamine Benzofur P. See 4-Aminophenol Benzohydroquinone. See Hydroquinone Benzoic acid, 4-amino-, butyl ester. See Butyl p-aminobenzoate Benzoic acid, p-amino-, butyl ester. See Butyl p-aminobenzoate Benzoic acid, 4-amino-, 2-(diethylamino)ethyl ester. See 2-(Diethylamino) ethyl p-aminobenzoate Benzoic acid, p-amino-, 2-(diethylamino)ethyl ester. See 2-(Diethylamino) ethyl p-aminobenzoate Benzoic acid, 4-amino-, ethyl ester. See Ethyl p-aminobenzoate Benzoic acid, p-amino-, ethyl ester. See Ethyl p-aminobenzoate Benzoic acid, p-amino-, methyl ester. See Methyl p-aminobenzoate Benzoic acid, 2-amino-, methyl ester. See Methyl o-aminobenzoate Benzoic acid, 4-amino-, methyl ester. See Methyl p-aminobenzoate Benzoic acid, p-amino-, propyl ester. See Propyl p-aminobenzoate Benzoic acid, benzyl ester. See Benzyl benzoate Benzoic acid, butyl ester. See Butyl benzoate Benzoic acid, n-butyl ester. See Butyl benzoate Benzoic acid, ethenyl ester. See Vinyl benzoate Benzoic acid, ethyl ester. See Ethyl benzoate Benzoic acid, hexyl ester. See Hexyl benzoate Benzoic acid, 4-hydroxy-, butyl ester. See Butyl paraben Benzoic acid, 2-hydroxy-, ethyl ester. See Ethyl salicylate Benzoic acid, 4-hydroxy-, ethyl ester. See Ethyl paraben Benzoic acid, p-hydroxy-, ethyl ester. See Ethyl paraben Benzoic acid, 2-hydroxy-, methyl ester. See Salicylates Benzoic acid, 4-hydroxy-, methyl ester. See Methyl paraben Benzoic acid, p-hydroxy-, methyl ester. See Methyl paraben Benzoic acid, 2-hydroxy-, pentyl ester. See Amyl salicylate Benzoic acid, 2-hydroxy-, phenyl ester. See Phenyl salicylate Benzoic acid, m-hydroxyphenyl ester. See Resorcinol monobenzoate Benzoic acid, 4-hydroxy-, propyl ester. See Propyl paraben Benzoic acid, p-hydroxy-, propyl ester. See Propyl paraben Benzoic acid, isopropyl ester. See Isopropyl benzoate Benzoic acid, methyl ester. See Methyl benzoate Benzoic acid, 1-methylethyl ester. See Isopropyl benzoate Benzoic acid, peroxide. See Dibenzoyl peroxide Benzoic acid, phenylmethyl ester. See Benzyl benzoate Benzoic acid, 3,4,5-trihydroxy-, dodecyl ester. See Dodecyl gallate Benzoic acid, 3,4,5-trihydroxy-, octyl ester. See Octyl gallate Benzoic acid, 3,4,5-trihydroxy-, propyl ester. See Propyl gallate Benzoic acid, vinyl ester. See Vinyl benzoate Benzoic aldehyde. See Benzaldehyde

Benzoic ether; benzoyl ethyl ether. See Ethyl benzoate Benzol. See Benzene Benzolene. See Benzene Benzo[rst]pentacene. See Dibenzo[a,i]pyrene Benzoperoxide. See Dibenzoyl peroxide Benzo[ghi]perylene, 5:393 chemical and physical properties, 5:393 toxic effects, 5:393 1,2-Benzophenanthrene. See Chrysene 2,3-Benzophenanthrene. See Benz[a]anthracene 9,10-Benzophenanthrene. See Triphenylene Benzo[a]phenanthrene. See Benz[a]anthracene Benzo[c]phenanthrene, 5:393 chemical and physical properties, 5:394 toxic effects, 5:394 Benzo[def]phenanthrene. See Pyrene Benzo[l]phenanthrene. See Triphenylene 3,4-Benzophenanthrene, tetrahelicene. See Benzo[c]phenanthrene Benzophenone, 3:887 chemical and physical properties, 3:887 environmental impact, studies, 3:895 exposure assessment, 3:887-889 guidelines of exposure, 3:895 production and use, 3:887 toxic effects experimental studies, 3:889-894 human experience, 3:894-895 3,4-Benzopyrene. See Benzopyrenes 3,4-Benzo[a]pyrene. See Benzopyrenes 6,7-Benzopyrene. See Benzopyrenes Benzo[a]pyrene, BaP. See Benzopyrenes Benzopyrenes, 5:397 chemical and physical properties, 5:398 exposure assessment, 5:398 guidelines of exposure, 5:400 production and use, 5:398 toxic effects, 5:398-399 Benzoquinol. See Hydroquinone 2,3-Benzoquinoline. See Acridine; Benz[a] acridine Benzo[b]quinoline. See Acridine; Benz[a] acridine Benzoquinone. See Quinone 1,4-Benzoquinone. See Quinone p-Benzoquinone. See Quinone 3,4-Benzotetraphene. See Benzo[b]chrysene Benzo[c]tetraphene. See Benzo[b]chrysene Benzothiazole, 4:1064 animal and human studies, 4:1064 chemical and physical properties, 4:1064 Benzotriazole carcinogenesis, 2:772 chemical and physical properties, 2:771 environmental impact studies, 2:773 exposure assessment, 2:772 exposure standards, 2:772 genetic and cellular effects, 2:772 odor and warning properties, 2:771 pharmacokinetics, metabolism, and mechanisms, 2:772 production and use, 2:771-772 reproductive and developmental effects, 2:772

toxic effects acute toxicity, 2:772 experimental studies, 2:772 human experience, 2:772 subchronic and chronic toxicity, 2:772 2,3-Benzotriphenylene. See Dibenz[a,c]anthracene Benzoyl alcohol. See Benzyl alcohol Benzoylbenzene. See Benzophenone Benzoyl hydride. See Benzaldehyde Benzoyl methide. See Acetophenone Benzoyl peroxide. See Dibenzoyl peroxide Benzoyl superoxide. See Dibenzoyl peroxide 1,12-Benzperylene. See Benzo[ghi]perylene 2,3-Benzphenanthrene. See Benz[a]anthracene 9,10-Benzphenanthrene. See Triphenylene Benz[a]phenanthrene. See Chrysene Benzyl acetate, 4:93 chemical and physical properties, 4:94 exposure assessment, 4:94 odor and warning properties, 4:94 production and use, 4:94 standards, regulations, or guidelines of exposure, 4:95 studies on environmental impact, 4:95 toxic effects, 4:94 acute toxicity, 4:94 carcinogenesis, 4:95 chronic and subchronic toxicity, 4:94 experimental studies, 4:94 genetic and related cellular effects studies, 4:95 human experience, 4:95 pharmacokinetics, metabolism, and mechanisms, 4:94 reproductive and developmental, 4:94, 4:95 Benzyl alcohol, 4:23 chemical and physical properties, 4:23 production and use, 4:23 standards, regulations, or guidelines of exposure, 4:25 toxic effects, 4:23 acute toxicity, 4:23 carcinogenesis, 4:24 chronic and subchronic toxicity, 4:23 clinical cases. 4:24, 4:25 experimental studies, 4:23 genetic and related cellular effects studies, 4:24 neurological, pulmonary, and skin sensitization, 4:24 pharmacokinetics, metabolism, and mechanisms, 4:23. 4:24 reproductive and developmental, 4:24 Benzyl alcohol benzoic ester. See Benzyl benzoate Benzyl alcohol, cinnamate; Benzyl alcohol, cinnamic ester. See Benzyl cinnamate Benzyl benzenecarboxylate. See Benzyl benzoate Benzyl benzoate, **4:**160 chemical and physical properties, 4:161 exposure assessment, 4:161 odor and warning properties, 4:161 production and use, 4:161 standards, regulations, or guidelines of exposure, 4:162 toxic effects, 4:161 acute toxicity, 4:161

chronic and subchronic toxicity, 4:161 clinical cases, 4:162 experimental studies, 4:161 genetic and related cellular effects studies, 4:161 human experience, 4:161 neurological, pulmonary, skin sensitization, 4:161 pharmacokinetics, metabolism, and mechanisms, 4:161 reproductive and developmental, 4:161 Benzyl cinnamate, 4:178 chemical and physical properties, 4:178 production and use, 4:179 toxic effects, 4:179 acute toxicity, 4:179 chronic and subchronic toxicity, 4:179 experimental studies, 4:179 genetic and related cellular effects studies, 4:179 human experience, 4:179 neurological, pulmonary, skin sensitization, 4:179 pharmacokinetics, metabolism, and mechanisms, 4:179 Benzylcinnamoate. See Benzyl cinnamate Benzylester kyseliny bensoove [Czech]. See Benzyl benzoate Benzylester kyseliny octove. See Benzyl acetate Benzylester kyseliny skoricove [Czech]. See Benzyl cinnamate Benzyl y-phenylacrylate. See Benzyl cinnamate Benzylideneacetaldehyde. See Cinnamaldehyde Benzylideneacetic acid. See Cinnamic acid Benzyl mercaptan, 4:1055 animal and human studies, 4:1055 chemical and physical properties, 4:1055 p-Benzyloxyphenol. See Hydroquinone monobenzyl ether Benzyl phenylformate. See Benzyl benzoate Benzyl 3-phenylpropenoate. See Benzyl cinnamate Berkflam b 10E. See Decabromodiphenyl oxide Bertandite, 1:113, 1:136t Bertrandite, 1:116, 1:117, 1:119t, 1:132 Beryl, 1:113 Beryllium, 1:113, 1:115 biomonitoring/biomarkers, 1:119-121 exposure assessment, 1:118 air. 1:118 background levels, 1:118 community methods, 1:119 workplace methods, 1:118-119 human experience, 1:127 clinical cases, 1:127-132 epidemiology studies, 1:132-137, 1:133t physical and chemical properties, 1:116t, 1:117 production and use, 1:117-118 standards, regulations, or guidelines of exposure, 1:137 studies on environmental impact, 1:138 synonyms and trade names, 1:116 toxic effects, 1:121 carcinogenesis, 1:125, 1:127, 1:128t-130t experimental studies, 1:121 genotoxicity, of beryllium compounds, 1:126t-127t neurological, pulmonary, and skin sensitization, 1:127 pharmacokinetics, metabolism, and mechanisms, 1:123-125

Beryllium (Continued) pulmonary and immunologic toxicity studies in animals, 1:122t-123t reproductive and developmental effects, 1:125 Beryllium-aluminum alloy, 1:115 Beryllium chloride, 1:114 Beryllium compounds, 1:113 Beryllium-copper alloys, 1:115, 1:118 properties, 1:116t uses, 1:117 Beryllium disease, 1:118-120, 1:127, 1:130-133, 1:136-138, 1:244, 247 Beryllium fluoride, 1:114 Beryllium hydroxide, 1:115, 1:116, 1:124, 1:132 Beryllium metal-matrix composite, 1:115 Beryllium metal processing, 1:133 Beryllium mining and extraction, 1:132 Beryllium-nickel alloy, 1:115 Beryllium oxide, 1:113, 1:114, 1:117, 1:121, 1:125 carcinogenesis, 1:125 ceramics production, 1:134 heat conductor, 1:113 properties, 1:116t uses, 1:117 Beryllium sulfate, 1:114, 1:117, 1:125, 1:130, 1:136t carcinogenesis, 1:125 intracellular lesions, 1:450 induced by, 1:450 properties and trade names, 1:116t Beta-aminoethanol. See Monoethanolamine Beta, beta'-dihydroxydiethyl ether. See Diethylene glycol Beta-butylene oxide. See 2,3-Butylene oxide Beta-carboxyethyl germanium sesquioxide for AIDS and cancer, 1:357 suppressive effects, 1:359 Beta decay, 1:4 Beta-emitting isotopes, 1:15 Beta-ethanolamine. See Monoethanolamine Beta-ethylacrolein. See 2-Pentenal Beta, gamma-dioxopentane. See 2,3-Pentanedione Beta-hydroxyethylamine. See Monoethanolamine Beta-hydroxyethylbenzene. See 1-Phenylethanol Beta isomer: 2-(1,1-dimethylethoxy)-1-propanol, 2-tertiarybutoxypropan-1-ol. See Propylene glycol mono-tertiarybutyl ether Beta-methylacrylic acid. See Crotonic acid Beta-methylnaphthalene. See Methylnaphthalene Beta-phenethyl alcohol. See 1-Phenylethanol Beta-phenoxyethyl alcohol. See Ethylene glycol monophenyl ether Beta-phenylpropylene. See α -Methyl styrene Betaprene H. See Polyisoprene Beta-pyrene. See Pyrene Beta rays, 1:2 Beta-trichloroethane. See 1,1,2-Trichloroethane β -Ethoxypropionic acid ethyl ester. See Ethyl 3-ethoxypropionate Betula. See Salicylates Betula lenta. See Salicylates Betula oil. See Salicylates Bextrene x1 750 biocolastic a 75. See Polystyrene

BF 352-31. See 3.5-Dichloroaniline BFV. See Formaldehyde BGA. See Ethlyene glycol mono-n-butyl ether acetate BGBP. See Butyl phthalyl butyl glycolate BGE. See n-Butyl glycidyl ether; Ethylene glycol mono-n-butyl ether BHA. See Butylated hydroxyanisole BHK21 cells, nickel metal causing transformation, 1:660 Bi 3411. See Chloral hydrate Biacetyl. See Diacetyl 4,4'-Bianiline. See Benzidine Bianisidine. See 3,3'-Dimethylbenzidine Bicarburet of hydrogen. See Benzene Bicarburretted hydrogen. See Ethene 1,2-Bichloroethane. See Ethylene dichloride Bicolene h. See Polystyrene Bicyclic/tricyclic aromatic amines, 2:666 structural formulas of, 2:667 Bicyclo[4.4.0]decane. See Decalin cis-Bicyclo[4.4.0]decane. See cis-Decalin trans-Bicyclo[4.4.0]decane. See trans-Decalin Bicyclo(2.2.1) heptane, 2,2-dimethyl-3-methylene-. See Camphene Bicyclo(2,2,1)hept-2-ene. See Ethylidene norbornene Bicyclo(3.1.1)hept-2-ene, 2,6,6-trimethyl. See α -Pinene Biformal. See Glyoxal Biformyl. See Glyoxal Big Dipper. See Diphenylamine Bihexyl. See Dodecane Bimethyl. See Ethane Binary salts of alkali and alkaline-earth metals, 1:1073 Binitrobenzene. See 1,3-Dinitrobenzene Bio-beads s-s 2. See Polystyrene Biocide. See Acrolein Biodiesel, 1:937, 5:350 chemical and physical properties, 5:351 guidelines of exposure, 5:351 production and use, 5:351 toxic effects, 5:351 Biogas. See Methane Biological clock, 6:335 human studies. 6:335-336 melatonin rhythm, 6:337-338 molecular/genetic studies, 6:336-337 neuroanatomical studies, 6:336 plant and animal studies, 6:335 temperature rhythm, 6:337 Biological macromolecules, reaction with ozone, 1:996 **Biological** rhythms overview of, 6:334-335 Biological tolerance (BAT) value, 5:24 Biomarkers, 6:479 Biomechanics, 6:233 basic concepts, and relevant terminology, 6:233 center of mass. 6:233 moment of inertia, 6:233 types of motion, 6:233 laws relevant to biomechanics, 6:233 friction, 6:234 joint reaction forces, 6:234

law of acceleration, 6:233 law of inertia. 6:233 law of reaction, 6:234 stress and strain, 6:234 torque, 6:234 mechanical lever system to human body, 6:234 anthropometry, 6:236 application of, 6:234-235 biomechanical analysis of holding an object in hand, 6:235-236 biomechanical loading of the wrist, 6:236 bone-joint-muscle lever systems, 6:235f classes of lever systems, 6:235f mechanical laws of levers, 6:235 psychophysics, 6:237-238 work physiology, 6:237 Bioxirane. See Butadiene Diepoxide 2,2'-Bioxirane. See Butadiene Diepoxide [1,1'-Biphenyl]-4-amine. See 4-Aminobiphenyl 4-Biphenylamine. See 4-Aminobiphenyl 1,1'-Biphenyl-4,4'-diamine. See Benzidine 4,4'-Biphenyldiamine. See Benzidine 4,4'-Biphenyl-4,4'-diamine. See Benzidine ortho-Biphenylenemethane. See Fluorene 1,1'-Biphenyl, methyl. See Methylbiphenyl Biphenylol. See o-Phenylphenol (OPP) 1,1'-Biphenyl-2-ol. See o-Phenylphenol (OPP) 2-Biphenylol. See Sodium o-phenylphenate (SOPP) Biphenyl-2-ol. See o-Phenylphenol (OPP) o-Biphenylol. See o-Phenylphenol (OPP) 4,4'-Bipyridinium, 1,1'-dimethyl-. See Quaternary herbicides $Bis(\alpha,\alpha$ -dimethylbenzyl) peroxide. See Dicumyl peroxide 1,2-Bis(acetoxyethoxy) ethane. See Triethylene glycol diacetate Bisamine. See 4,4'-Methylenebis(2-chloroaniline) Bis amine. See 4,4'-Methylenebis(2-chloroaniline) Bis-amine A. See 4,4'-Methylenebis(2-chloroaniline) Bis-2-aminoethylamine. See Diethylenetriamine N,N'-Bis(2-aminoethyl)-ethylenediamine. See Triethylenetetramine Bis(p-aminophenyl) ether. See 4-Aminophenyl ether; 4,4'-Oxydianiline Bis(4-aminophenyl)methane. See 4,4'-Methylenedianiline; 4,4'-Methylenedianiline dihydrochloride Bis(*p*-aminophenyl) methane. See 4,4'-Methylenedianiline; 4,4'-Methylenedianiline dihydrochloride Bis(β -chloroisopropyl) ether. See Dichloroisopropyl ether 1,3-Bis (2,3-epoxy propoxy) benzene. See Resorcinol diglycidyl ether 1,3-Bis(benzoyloxy)benzene. See Resorcinol dibenzoate N,N-Bis(2-(bis-(carboxymethyl)amino)ethyl)-glycine. See Diethylenetriaminepentaacetic acid 2,2-Bis(bromomethyl)-1,3-propanediol, 4:635 production and use, 4:635 toxic effects, 4:635-636 1,4-Bis (2,3-epoxypropoxy)butane. See 1,4-Butanediol diglycidyl ether Bis(2-butoxyethyl) adipate. See Dibutoxyethyl adipate Bis(2-butoxyethyl) hexanediote. See Dibutoxyethyl adipate

Bis(2-butoxyethyl)phthalate. See Dibutoxyethyl phthalate Bis(t-butyl) peroxide. See Di-t-butyl peroxide α, α' Bis(*t*-butylperoxy)diisopropylbenzene, **4:5**70 chemical and physical properties, 4:570 exposure assessment, 4:570 toxic effects, 4:570 Bis(n-butyl) sebacate. See Dibutyl sebacate S-(1,2-Bis(carbethoxy)ethyl)O,O-dimethyl dithiophosphate. See Malathion Bis(p-chlorobenzoyl)peroxide. See Di(p-chlorobenzoyl) peroxide Bis(2-chloroethoxy)methane. See Di(chloroethyl)formal Bis(β -chloroethyl) amines, characteristics, 2:714 Bis(2-chloroethyl) ether. See Dichloroethyl ether Bis(2-chloroethyl) formal. See Di(chloroethyl)formal Bis(β-chloroethyl)formal. See Di(chloroethyl)formal Bis(chloromethyl)ether (BCME), 3:615, 6:460 chemical and physical properties, 3:615 exposure assessment, 3:615 guidelines of exposure, 3:616 toxic effects, 3:615-616 Biscumylperoxypropane. See 2,2-Di-(cumylperoxy)propane Bis(2,4-dichlorobenzoyl) peroxide. See Di-(2,4-dichlorobenzoyl) peroxide Bis(1,1-dimethylethyl) ester. See Di-t-butyl diperoxyphthalate Bis(1,1-dimethyl)peroxide. See Di-t-butyl peroxide Bis(2,3-epoxycyclopentyl) ether, 4:521 chemical and physical properties, 4:522 exposure assessment, 4:522 guidelines of exposure, 4:522 production and use, 4:522 toxic effects experimental studies, 4:522 1,3-Bis(2,3-epoxypropoxy)-2,2-dimethylpropane. See Neopentyl glycol diglycidyl ether 1,6-Bis(2,3-epoxypropoxy)hexane. See Hexanediol diglycidyl ether Bis(2,3-epoxypropyl) ether. See Diglycidyl ether S-1,2-Bis(ethoxycarbonyl)ethyl O,O-dimethyldithiophosphate. See Malathion Bis(2-(2-ethylbutoxy)ethyl) adipate. See Di-2-(2-ethylbutoxy)ethyl adipate Bis(2-ethylbutyl)ester kyseliny adipove [Czech]. See Di(2-ethylbutyl) adipate Bis(ethylene glycol monobutyl ether) adipate. See Dibutoxyethyl adipate Bis(2-ethylhexyl) azelate. See Di(2-ethylhexyl) azelate Bis(2-ethylhexyl)-1,4-benzenedicarboxylate. See Di(2-ethylhexyl) terephthalate Bis(2-ethylhexyl) butanedioate. See Di(2-ethylhexyl) succinate Bis(2-ethylhexyl) decanedioate. See Di(2-ethylhexyl) sebacate Bis(2-ethylhexyl)ester kyseliny fumarove [Czech]. See Di(2-ethylhexyl) fumarate Bis(2-ethylhexyl) ester kyseliny maleinove [Czech]. See Di(2-ethylhexyl) maleate Bis(2-ethylhexyl)ester kyseliny sebakove [Czech]. See Di(2-ethylhexyl) sebacate Bis(ethylhexyl) ester of sodiumsulfosuccinic acid. See Dioctyl

sodium sulfosuccinate

526 CUMULATIVE SUBJECT INDEX, VOLUMES 1-6

Bis-2-ethylhexylester sulfojantaranu sodneho [Czech]. See Dioctyl sodium sulfosuccinate Bis(2-ethylhexyl) fumarate. See Di(2-ethylhexyl) fumarate Bis(2-ethylhexyl) hexanedioate. See n-Dioctyl adipate Bis(2-ethylhexyl)maleate. See Di(2-ethylhexyl) maleate Bis(2-ethylhexyl) nonanedioate. See Di(2-ethylhexyl) azelate Bis(2-ethylhexyl)orthophosphoric acid. See Di(2-ethylhexyl) phosphate Bis-(2-ethylhexyl)phosphate. See Di(2-ethylhexyl) phosphate Bis(2-ethylhexyl)phosphoric acid. See Di(2-ethylhexyl) phosphate Bis(2-ethylhexyl)phthalate. See Di(2-ethylhexyl) phosphate; Di(2ethylhexyl) phthalate Bis(ethylhexyl) sebacate. See Di(2-ethylhexyl) sebacate Bis(2-ethylhexyl) sebacate. See Di(2-ethylhexyl) sebacate 1,4-Bis(2-ethylhexyl) (S) sodium sulfosuccinate. See Dioctyl sodium sulfosuccinate Bis(2ethylhexyl) sodium sulfosuccinate. See Dioctyl sodium sulfosuccinate Bis(2-ethylhexyl) succinate. See Di(2-ethylhexyl) succinate Bis(2-ethylhexyl) sulfosuccinate sodium salt. See Dioctyl sodium sulfosuccinate Bis(2-ethylhexyl) terephthalate. See Di(2-ethylhexyl) terephthalate m-Bis(glycidyloxy)benzene. See Resorcinol diglycidyl ether 1,4-Bis(glycidyloxy)butane. See 1,4-Butanediol diglycidyl ether Bis(2-(hexyloxy)ethyl)adipate. See Di(2-hexyloxyethyl) adipate Bis(1-hydroxycyclohexyl) peroxide. See Di(1-hydroxycyclohexyl) peroxide 1,4-Bis(2-hydroxyethoxy) benzene. See 2,2'-[1,4-Phenylenebis (oxy)]bisethanol *p*-Bis(2-hydroxyethoxy)benzene. *See* 2,2'-[1,4-Phenylenebis(oxy)] bisethanol 1,2-Bis(2-hydroxyethoxy)ethane. See Triethylene glycol Bis(2-hydroxyethoxy)ethane. See Triethylene glycol Bis(2-hydroxyethyl) ether. See Diethylene glycol 2,2-Bis(hydroxymethyl)-1,3-propanediol tetranitrate. See Pentaerythritol tetranitrate Bis(2-hydroxypropyl)amine. See Diisopropanolamine Bismarck's Workingmen's Insurance Law, 5:1 Bis(2-methoxyethyl) ether. See Diethylene glycol dimethyl ether Bis(2-methoxyethyl)phthalate. See Dimethoxyethyl phthalate Bis-(2-methylbenzoyl) peroxide. See Di-2-methylbenzoyl peroxide Bis(1-methyl-1phenylethyl) peroxide. See Dicumyl peroxide Bis(2-methylpropyl)amine. See Diisobutylamine **Bismuth** acute toxicity, 1:499-500, 1:501 carcinogenesis, 1:501, 1:502 chemical and physical properties odor and warning properties, 1:497-498 chronic and subchronic toxicity, 1:500, 1:501-502 clinical cases, 1:501-502 exposure assessment in air, 1:498 in background levels, 1:498 biomonitoring/biomarkers, 1:498 in blood, 1:498 community methods, 1:498 in urine, 1:498 workplace methods, 1:498 genetic and related cellular effects studies, 1:501, 1:502

neurological, pulmonary, and skin sensitization, 1:501, 1:502 pharmacokinetics, metabolism, and mechanisms, 1:500-501, 1:502 absorption, 1:500 distribution, 1:500-501 excretion, 1:501 reproductive and developmental studies, 1:501, 1:502 standards, regulations, or guidelines of exposure, 1:502 studies on environmental impact, 1:502 toxic effects, 1:498-502 experimental studies, 1:498-501 human experience, 1:501-502 Bismuth-containing intranuclear inclusion bodies, 1:499 Bismuth subcarbonate (BSC), 1:501 Bismuth subgallate (BSG), 1:497 Bismuth subsalicylate (BSS), 1:497, 1:498 1,4-Bis(oxiranylmethyloxy)butane. See 1,4-Butanediol diglycidyl ether Bis(1-oxodexyl) peroxide. See Didecanoyl peroxide Bis(1-oxododecyl) peroxide. See Dilauroyl peroxide 2,2-Bis[parp-2,3-epoxypropoxy phenyl]propane. See Bisphenol A diglycidyl ether Bis(pentabromophenyl)ether. See Decabromodiphenyl oxide Bisphenol A (BPA), 5:29 Bisphenol A diglycidyl ether, 4:493 chemical and physical properties, 4:493 exposure assessment, 4:494 guidelines of exposure, 4:501 production and use, 4:494 toxic effects, 4:494 experimental studies, 4:495-500 human experience, 4:500-501 Bisphenol A, polysulfone, 4:990 chemical and physical properties, 4:990 exposure assessment, 4:990 production and use, 4:990 toxic effects experimental studies, 4:990 human experience, 4:990-991 Bisphenol F diglycidyl ether (BFDGE). See Phenolic novolacs/ cresolic novolacs, polyglycidyl ethers Bis(phenoxyphenyl) ether, 3:637 chemical and physical properties, 3:637 exposure assessment, 3:637 toxic effects experimental studies, 3:637-638 human experience, 3:638 O,O-Bis (1-methylethyl)-S-[2[(phenylsulfonyl)amino]ethyl] phosphorodithioate. See Bensulide Bis(trimethylsilyl) ether. See Hexamethyl disiloxane Bis(trimethylsilyl) oxide. See Hexamethyl disiloxane Bis(tri-n-butyltin)oxide (TBTO), 1:368, 1:370, 1:372, 1:373 Bi subsalicylate (BSS), 1:497 Bis[2-(vinyloxy)ethyl] ether. See Diethylene glycol divinyl ether 4,4'-Bi-o-toluidine. See 3,3'-Dimethylbenzidine Bitumen. See Asphalt Bitumen fumes. See Asphalt

Bitumens. See Asphalt

Bituminous coal. See Coal BL 15. See Hydroxyethyl cellulose Blandlube. See White oils Blandol white mineral oil. See White oils Blasting gelatin. See Nitroglycerin Blasting oil. See Nitroglycerin Blausäure-Methan-Ammoniak (BMA) process, 2:949 Blood and urine manganese concentrations, 1:624 Blood-borne circadian photoreceptor, 6:341 Bloodborne pathogens, in workplace, 5:535 bacteria, 5:545 fungi, 5:545 hepatitis B virus (HBV), 5:535 hepatitis C virus (HCV), 5:535 hepatitis viruses hepatitis B virus, 5:542 hepatitis C virus, 5:542-543 human immunodeficiency virus 1, 5:536-537 biological characteristics, 5:536 pathogenesis, 5:536 strains, 5:536 virology, **5:**536 inactivation studies environmental stability, 5:537 epidemiology, 5:538-539 heat inactivation, 5:537-538 infection prevention, strategies, 5:546-550 non-A, non-B (NANB) hepatitis, 5:535 occupational HIV-1 transmission, 5:539 AIDS, in healthcare workers, 5:539 documented case studies, 5:539-540 prevalence studies, 5:539 occupational infection, risks, 5:543 occupational risk assessment, 5:540 parasites, 5:545 postexposure management, 5:550-551 prion disease, 5:545 retroviruses, 5:543-545 route/extent of exposure, 5:540-541 cutaneous, 5:540 mucous membrane, 5:540 parenteral, 5:540 specimen age, 5:541 viral concentration, 5:541 viral hemorrhagic fever viruses (VHF), 5:545 zoonotic viruses, 5:545 Blood-brain barriers, 1:10, 1:40, 1:51, 1:52, 1:217, 1:306, 1:391, 1:396. 1:622 Blood-nerve barrier (BNB), 1:862 Blood oxygen content as a function of oxygen tension, 1:954f Blood-testis barriers, 1:524 Blood urea nitrogen (BUN), 1:359, 1:397, 1:618, 1:691, 1:783 Blue Base. See 3,3'-Dimethoxybenzidine Blue Base Irga B. See 3,3'-Dimethoxybenzidine Blue Base NB. See 3,3'-Dimethoxybenzidine Blue BN Base. See 3,3'-Dimethoxybenzidine Blue oil. See Aniline BMA, See n-Butyl Methacrylate β-(Methylamino) ethanol. See Monomethylethanolamine

β-Methylpropyl ethanoate. See Isobutyl acetate BNA. See 2-Naphthylamine BOCA. See 4,4'-Methylenebis(2-chloroaniline) Body mass index (BMI), 6:353 Boletic acid. See Fumaric acid Bolivian ore, 1:366 Bolus alba. See Kaolin Bone necrosis, 6:311 Bone sarcoma, 1:153 Borates, 1:885 clinical cases and experimental studies, 1:899-901 commercially significant borate minerals, 1:890t in environment, 1:891-892 epidemiology studies, 1:901-906 genetic and related cellular effects studies, 1:899 human experience, 1:899 inorganic borates, acute oral toxicity, 1:895t methods for measurement, 1:892 tetraborate anion structure, 1:890f toxic effects, 1:895 acute toxicity, 1:895-896 chronic and subchronic toxicity, 1:896 pharmacokinetics, metabolism, and mechanisms, 1:896-899 Boric acid, 1:910 acute oral toxicity of, 1:895t chemical and physical properties, 1:910 exposure assessment, 1:910 production and use, 1:910 standards, regulations, or guidelines of exposure, 1:911 studies on environmental impact, 1:911 toxic effects, 1:910 Boric oxide, 1:911 chemical and physical properties, 1:911 exposure assessment, 1:911 production and use, 1:911 standards, regulations, or guidelines of exposure, 1:912 studies on environmental impact, 1:912 toxic effects, 1:911-912 Boron, 1:885 beneficial effects of, 1:886 clinical cases and experimental studies, 1:899-901 distribution of boron, 1:890f epidemiology studies, 1:901 genetic and related cellular effects studies, 1:899 human experience, 1:899 mean dietary boron consumption, 1:886 methods for chemical analysis of inorganic boron, 1:892-894 physical and chemical properties, boron-containing compounds, 1:887t-889t production and use of, 1:890-891 toxic effects, 1:895 acute toxicity, 1:895-896 chronic and subchronic toxicity, 1:896 pharmacokinetics, metabolism, and mechanisms, 1:896-899 use of blood and urine for biomonitoring, 1:894-895 in workplace, 1:892 worldwide production of boron minerals, 1:891t Boron, elemental. See Elemental boron Boron neutron capture therapy, 1:906

Boron transporter membrane protein, BOR1, 1:885 Boron tribromidet, 1:918 chemical and physical properties, 1:918 exposure assessment, 1:918 production and use, 1:918 standards, regulations, or guidelines of exposure, 1:918 toxic effects, 1:918 Boron trifluoride, 1:919 chemical and physical properties, 1:919 exposure assessment, 1:919 production and use, 1:919 standards, regulations, or guidelines of exposure, 1:919 toxic effects, 1:919 Bortran. See 2,6-Dichloro-4-nitroaniline Botran. See 2.6-Dichloro-4-nitroaniline Botran 75W. See 2,6-Dichloro-4-nitroaniline Botrilex. See Pentachloronitrobenzene Bovine aortic endothelial cells, 1:544 BPD. See 2,2-Bis(bromomethyl)-1,3-propanediol BPG 400. See Polypropylene glycol butyl ethers BPG 800. See Polypropylene glycol butyl ethers Bp-klp bsb-s. See Polystyrene BPO. See Dibenzoyl peroxide BR. See Polybutadiene Brainstem-evoked auditory potentials (BEAPs), 1:359 Brasilazina Oil Yellow R. See o-Aminoazotoluene Brassicol. See Pentachloronitrobenzene Brassidic acid (trans isomer). See Erucic acid Brecolane ndg. See Diethylene glycol Brentamine fast blue B base. See 3,3'-Dimethoxybenzidine Brentamine fast orange GR base. See 2-Nitroaniline; o-Nitroaniline Brentamine fast orange GR salt. See 2-Nitroaniline; o-Nitroaniline Brentamine fast red TR base. See 4-Chloro-o-toluidine Brick oil. See Creosote BR 55N. See Decabromodiphenyl oxide BRN 0471705. See Dimethyl maleate BRN 0606965. See Methyl o-aminobenzoate BRN 0638434. See Ethyl p-aminobenzoate BRN 0775913. See Methyl p-aminobenzoate BRN 0907645. See Diethyl succinate BRN 0913480. See 2-(Diethylamino) ethyl p-aminobenzoate BRN 1100825. See Diethyl maleate BRN 1103741. See Butyl paraben BRN 1211203. See Propyl p-aminobenzoate BRN 1211465. See Butyl p-aminobenzoate BRN 1713645. See Glyceryl tripropionate BRN 1717202. See Glyceryl trioctanoate BRN 1717683. See Glyceryl tridecanoate BRN 1726634. See Dibutyl maleate BRN 1727367. See Dipentyl maleate BRN 1779461. See Dipropyl succinate BRN 1786221. See n-Dibutyl succinate BRN 1798308. See Dibutyl sebacate BRN 1806504. See Di(2-ethylhexyl) sebacate BRN 1806732. See Glyceryl trihexanoate BRN 1807724. See Glyceryl triheptanoate BRN 1810343. See Glyceryl triundecanoate BRN 1865490. See Resorcinol monoacetate BRN 1873897. See Resorcinol monobenzoate

BRN 1875007. See Resorcinol diacetate BRN 2056929. See Dimethoxyethyl phthalate BRN 2059467. See Resorcinol dibenzoate BRN 2132305. See Octyl gallate BRN 2328067. See n-Butyl cinnamate BRN 2701981. See Dodecyl gallate BRN 3140688. See Linayl cinnamate BRN 12388804. See Ethyl cinnamate BRN 0393969 [RTECS]. See Phenyl salicylate BRN 0509801 [RTECS]. See Methyl paraben BRN 0606350 [RTECS]. See Diethyl oxalate BRN 0775347 [RTECS]. See Diethyl fumarate BRN 0907659 [RTECS]. See Ethyl salicylate BRN 0971516 [RTECS]. See Salicylates BRN 1101972 [RTECS]. See Ethyl paraben BRN 1103245 [RTECS]. See Propyl paraben BRN 1714746 [RTECS]. See Glyceryl tributyrate BRN 1726370 [RTECS]. See Diisopropyl fumarate BRN 1726635 [RTECS]. See n-Dibutyl fumarate BRN 1729133 [RTECS]. See Di(2-ethylhexyl) maleate BRN 1729134 [RTECS]. See Di(2-ethylhexyl) fumarate BRN 1790779 [RTECS]. See Diethyl sebacate BRN 1792353 [RTECS]. See Glyceryl triacetate BRN 1806182 [RTECS]. See Di(2-ethylhexyl) azelate BRN 1809503 [RTECS]. See Glyceryl trinonanoate BRN 1867073 [RTECS]. See Butyl benzoate BRN 2041125 [RTECS]. See Vinyl benzoate BRN 2044384 [RTECS]. See Isopropyl benzoate BRN 2048117 [RTECS]. See Hexyl benzoate BRN 2049280 [RTECS]. See Benzyl benzoate BRN 2577253 [RTECS]. See Amyl salicylate Bromic ether. See Ethyl bromide Brominated bisphenol A, diglycidyl ethers, 4:501 chemical and physical properties, 4:502 exposure assessment, 4:502 guidelines of exposure, 4:503 production and use, 4:502 toxic effects experimental studies, 4:502-503 human experience, 4:503 Bromine. 1:1086 chemical and physical properties, 1:1086 exposure assessment, 1:1087 inorganic bromine compounds, 1:1089 OSHA recommended on-site sampling techniques/methods, 1:1087 production and use, 1:1086-1087 standards, regulations, or guidelines of exposure limit, 1:1088-1089 toxic effects, 1:1087-1088 Bromine halides, 1:1093 Bromine pentafluoride chemical properties, 1:1090t exposure limits for, 1:1058t Bromkal 83-10de. See Decabromodiphenyl oxide Bromkal 82-ode. See Decabromodiphenyl oxide Bromobenzene, 3:353 chemical and physical properties, 3:353 guidelines of exposure, 3:354

production and use, 3:353 toxic effects cellular effects studies, 3:354 experimental studies, 3:353-354 Bromochloromethane (DOT). See Methylene chlorobromide O-(4-Bromo-2-chloropheyl) o-ethyl Spropyl phosphorothioate. See Profenofos Bromochlorphos, dimethyl-1,2-dibromo-2,2-dichlorethyl. See Naled 5-Bromodeoxyuridine (BUdR), 1:10 Bromoesters, 4:400 Bromoethane. See Ethyl bromide Bromoethene. See Vinyl bromide Bromoethylene. See Vinyl bromide Bromoform. 3:34 chemical and physical properties, 3:34 exposure assessment, 3:34 guidelines of exposure, 3:37 production and use, 3:34 toxic effects, 3:34 experimental studies, 3:34-37 human experience, 3:37 Bromol. See 2,4,6-Tribromophenol Bromomethane. See Methyl bromide; Methylene bromide Bromo(phenyl)acetonitrile chemical and physical properties, 2:950t-951t, 2:985 odor and warning properties, 2:985 pharmacokinetics, metabolism, and mechanisms, 2:984 production and use, 2:985 reproductive and developmental effects, 2:984 toxic effects, 2:985 Bromopropane. See Propyl bromide 1-Bromopropane. See Propyl bromide Bronchial epithelial cells (BEAS-2B), 1:436 Bronchial hyperresponsiveness (BHR), 1:532, 6:7 Bronchial provocation tests (BPT), 1:573 Bronchoalveolar lavage (BAL), 5:310t Bronchoalveolar lavage fluid (BALF), 1:178, 1:180, 1:432, 1:433, 1:550 Bronchogenic carcinoma, 1:157, 1:376, 1:570 Bronzes. 1:362, 1:374 Brown coal. See Coal Brucella species photomicrograph of, 5:511f Buccal. See Nitroglycerin Buehler method, 2:740 Bufapto methalose. See Methyl cellulose Bugle. See Propionic acid Bulkaloid. See Methyl cellulose Burbonal. See Ethyl vanillin Bustren k. See Polystyrene Bustren u 825. See Polystyrene Bustreny 825. See Polystyrene 1,3-Butadiene, 2:64, 6:460. See Polyisoprene chemical and physical properties, 2:64 epidemiological studies in human, 2:72 exposure assessment, 2:64-65 guidelines of exposure, 2:75 lower alkadyenes, 2:75-76

occupational exposure limits, 2:75 production and use, 2:64 toxic effects, 2:65-75 acute toxicity, 2:65, 2:70 carcinogenesis, 2:67, 2:72 carcinogenicity studies and tumors, 2:68 cellular effects studies, 2:69, 2:74 chronic toxicity, 2:65 in vivo cytogenetic studies, 2:71 epidemiologic studies, 2:71 human experience, 2:70 mortality rates, 2:73 mutation induction studies in transgenic animals, 2:69 neurological, pulmonary, and skin sensitization, 2:70 pharmacokinetics, metabolism, and mechanisms, 2:65, 2:71 reproductive and developmental, 2:67 Butadiene diepoxide, 4:448 chemical and physical properties, 4:449 exposure assessment, 4:449 production and use, 4:449 standards, regulations, or guidelines of exposure, 4:451-4:452 toxic effects experimental studies, 4:449-4:451 human experience, 4:451 1,3-Butadiene diepoxide. See Butadiene diepoxide Butadiene dimer. See 4-Vinylcyclohexene Butadiene dioxide. See Butadiene diepoxide 1,3-Butadiene (BD), PBTK model, 6:481 Butadiene-styrene latex. See Styrene-butadiene Butadiene-styrene resin. See Styrene-butadiene Butadione. See Diacetyl 2,3-Butadione. See Diacetyl Butafume. See 2-Butylamine Butaldehyde. See n-Butyraldehyde Butalyde. See n-Butyraldehyde 1-Butamine. See Diisobutylamine Butanal. See n-Butyraldehyde n-Butanal. See n-Butyraldehyde 1-Butanamine. See n-Butylamine 2-Butanamine. See 2-Butylamine *n*-Butane adult/adolescent brain injury, 2:12 biomonitoring/biomarkers, 2:10 cellular effects studies, 2:11 chemical and physical properties, 2:9 exposure assessment, 2:10 exposure guidelines, 2:13 eye injury, 2:13 hemiparesis, 2:12 hepatic failure, 2:12 human experience, 2:11 occupational hepatitis, 2:13 pharmacokinetics, metabolism, and mechanisms, 2:10 psychotic disorders, 2:12 rhabdomyolysis, 2:12 toxic effects, 2:10 1-Butanecarboxylic acid. See Valeric acid 1,4-Butanediamine. See Tetramethylenediamine

1,4-Butanedicarboxylic acid. See Adipic acid 1,4-Butane diglycidyl ether. See 1,4-Butanediol diglycidyl ether Butanedioic acid. See Succinic acid Butanedioic acid, bis(2-ethylhexyl)ester. See Di(2-ethylhexyl) succinate Butanedioic acid, dibutyl ester. See n-Dibutyl succinate Butanedioic acid, diethyl ester. See Diethyl succinate 2-Butanedioic acid, dipentyl ester. See Dipentyl maleate Butanedioic acid, dipropyl ester. See Dipropyl succinate Butanedioic acid, methylene-. See Itaconic acid Butanedioic acid, methylene-, diethyl ester. See Diethyl itaconate Butanedioic acid sulfo-, 1,4-bis(2-ethylhexyl) ester, sodium. See Dioctyl sodium sulfosuccinate Butanediol. See 1,4-Butanediol 1.2-Butanediol. 4:622 toxic effects, 4:622 1,3-Butanediol, 4:622 toxic effects, 4:622 experimental studies, 4:622-624 human experience, 4:624 1,4-Butanediol, 4:624 toxic effects experimental studies, 4:624-625 Butane-1,4diol. See 1,4-Butanediol 2,3-Butanediol, 4:625 toxic effects, 4:625 1,3-Butanediol diacrylate, 4:847 chemical and physical properties, 4:847 toxic effects, 4:847 Butanediol diglycidyl ether. See 1,4-Butanediol diglycidyl ether 1,4-Butanediol diglycidyl ether, 4:471 chemical and physical properties, 4:471 exposure assessment, 4:471 guidelines of exposure, 4:472 production and use, 4:471 toxic effects, 4:471 experimental studies, 4:472 human experience, **4:**472 Butane-1:4-diol diglycidyl ether. See 1,4-Butanediol diglycidyl ether Butanediols, 4:621 chemical and physical properties, 4:621 production and use, 4:621 toxic effects, 4:621-622 Butanedione. See Diacetyl 2,3-Butanedione. See Diacetyl 2,2'-[1,4-Butanediylbis(oxymethylene)] bisoxirane. See 1,4-Butanediol diglycidyl ether Butanedoic acid, methylene-, dimethyl ester. See Dimethyl itaconate Butane 1,1'-[ethylidenebis (oxy)]bis-. See Acetaldehyde butyl acetal Butane, methylethylmethane, butyl hydride, pyrofax. See n-Butane Butane-2-one. See Methyl ethyl ketone Butanic acid. See Butyric acid Butanoic acid. See Butyric acid Butanoic acid ethyl ester. See Ethyl butyrate Butanoic acid, 3-oxo methyl ester. See Methyl acetoacetate Butanoic acid, 1,2,3-propanetriyl ester. See Glyceryl tributyrate

1-Butanol, 3:943. See Isoamyl formate chemical and physical properties, 3:943-944 exposure assessment, 3:944 guidelines of exposure, 3:947 production and use, 3:944 toxic effects experimental studies, 3:944-946 human experience, 3:947 Butan-1-ol. See 1-Butanol 2-Butanol, 3:950 chemical and physical properties, 3:950 exposure assessment, 3:950 guidelines of exposure, 3:951 production and use, 3:950 toxic effects experimental studies, 3:950-951 human experience, 3:952 Butan-2-ol. See 2-Butanol n-Butanol. See 1-Butanol n-Butan-1-ol. See 1-Butanol s-Butanol. See 2-Butanol sec-Butanol. See 2-Butanol t-Butanol. See tert-Butyl alcohol tert-Butanol. See tert-Butyl alcohol Butanol, acetate. See Butyl acetate 2-Butanol acetate. See sec-Butyl acetate Butanolen. See 1-Butanol Butanol-iso. See Isobutanol Butanolo. See 1-Butanol 2.3-Butanolone. See Acetoin 2-Butanol-3-one. See Acetoin Butan-2-ol-3-one. See Acetoin Butanols, 3:943 2-Butanone. See Methyl ethyl ketone Butanone peroxide. See Methyl ethyl ketone peroxide Butenal. See Crotonaldehyde 2-Butenal. See Crotonaldehyde But-2-enal. See Crotonaldehyde (E)-Butene. See 2-Butene Butene-1. See 1-Butene 1-Butene chemical and physical properties, 2:56 exposure assessment, 2:56-57 guidelines of exposure, 2:57 production and use, 2:56 toxic effects, 2:57 But-1-ene. See 1-Butene 2-Butene. 2:57 chemical and physical properties, 2:57-58 exposure assessment, 2:58 guidelines of exposure, 2:58 production and use, 2:58 toxic effects. 2:58 cis-2-Butene. See 2-Butene cis-But-2-ene. See 2-Butene E-But-2-ene. See 2-Butene n-Butene. See 1-Butene trans-2-Butene. See 2-Butene trans-But-2-ene. See 2-Butene

CUMULATIVE SUBJECT INDEX, VOLUMES 1-6 531

- (Z)-2-Butene. See 2-Butene
- Z-But-2-ene. See 2-Butene
- Butenedioic acid. See Fumaric acid
- 2-Butenedioic acid. See Diisopropyl fumarate
- 2-Butene-dioic acid. See Maleic acid
- 2-Butenedioic acid (E)-. See Fumaric acid
- 2-Butenedioic acid (Z)-. See Maleic acid
- cis-Butenedioic acid. See Maleic acid
- cis-2-Butenedioic acid. See Maleic acid
- (E)-Butenedioic acid. See Fumaric acid
- (E)-2-Butenedioic acid. See Fumaric acid
- trans-Butenedioic acid. See Fumaric acid
- trans-2-Butenedioic acid. See n-Dibutyl fumarate
- (Z)-Butenedioic acid. See Maleic acid
- (Z)-2-Butenedioic acid. See Maleic acid
- (Z)-But-2-ene-1,4-dioic acid. See Maleic acid
- 2-Butenedioic acid, bis (1-methylethyl) ester. See Diisopropyl maleate
- 2-Butenedioic acid (E-), bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) fumarate
- 2-Butenedioic acid, bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) maleate
- 2-Butenedioic acid (E)-bis(1-methylethyl) ester. See Diisopropyl fumarate
- 2-Butenedioic acid, dibutyl ester. See Dibutyl maleate
- 2-Butenedioic acid (E), dibutyl ester. See n-Dibutyl fumarate
- 2-Butenedioic acid, diethyl ester. See Diethyl maleate
- 2-Butenedioic acid (E)-, diethyl ester. See Diethyl fumarate
- trans-2-Butenedioic acid diethyl ester. See Diethyl fumarate
- 2-Butenedioic acid, dihexyl ester. See n-Dihexyl maleate
- trans-2-Butenedioic acid, diisooctyl ester. See Diisooctyl fumarate
- 2-Butenedioic acid, diisopropyl ester. See Diisopropyl maleate
- 2-Butenedioic acid, dimethyl ester. See Dimethyl maleate
- trans-2-Butenedioic acid, 2-ethylhexyl ester. See Di(2-ethylhexyl) fumarate
- trans-2-Butenedioic acid, isobutyl ester. See Diisobutyl fumarate
- 2-Butenedioic acid, 2-methyl-, (E)-. See Mesaconic acid
- 2-Butenedioic acid, 2-methyl-, (Z)-. See Citraconic acid
- 2-Butene-(E). See 2-Butene
- 1-Butene oxide. See 1,2-Butylene oxide
- 1,2-Butene oxide. See 1,2-Butylene oxide
- 2-Butenoic acid. See Crotonic acid; Mucochline
- (E)-2-Butenoic, 3-methylacrylic acid. See Crotonic acid
- (2-Butenylidene)acetic acid. See Sorbic acid
- 1-Butoxybutane. See Dibutyl ether
- 4-Butoxy-1-butanol. See Butylene glycol mono-n-butyl ether
- 4-(Butoxycarbonyl) aniline. See Butyl p-aminobenzoate
- Butoxycarbonylmethyl butyl phthalate. See Butyl phthalyl butyl glycolate
- 4-(Butoxycarbonyl) phenol. See Butyl paraben
- Butoxydiglycol. See Diethylene glycol mono-n-butyl ether
- 1-Butoxy-2,3-epoxypropane. See n-Butyl glycidyl ether
- 2-Butoxyethanol. See Ethylene glycol mono-n-butyl ether
- physiologically based pharmacokinetic model, 4:649f
- 2-Butoxy-1-ethanol. See Ethylene glycol mono-n-butyl ether
- 2-tert-Butoxyethanol. See Ethylene glycol mono-tert-butyl ether
- t-Butoxyethanol. See Ethylene glycol mono-tert-butyl ether
- 2-n-Butoxyethanol acetate. See Ethlyene glycol mono-n-butyl ether acetate

2-(2-Butoxyethoxy)ethanol. See Diethylene glycol mono-n-butyl ether 2(2-Butoxyethoxy) ethanol acetate. See Diethylene glycol mono-*n*-butyl ether acetate 2-(2-(2-Butoxyethoxy) ethoxy) ethanol. See Triethylene glycol mono-n-butyl ether 1-Butoxyethoxy-2-propanol. See Propylene glycol butoxyethyl ether 1-(2-Butoxyethoxy)-2-propanol. See Propylene glycol butoxyethyl ether b-Butoxyethyl phthalate. See Dibutoxyethyl phthalate 1-(2-(2-Butoxy-1-methylethoxy)-1-methylethoxy)-2-propanol. See Tripropylene glycol mono-n-butyl ether 2-(2-Butoxymethylethoxy)methylethoxy propanol. See Tripropylene glycol mono-*n*-butyl ether 1-[2-Butoxy-1-methylethoxy]-2-propanol. See Dipropylene glycol mono-*n*-butyl ether (Butoxymethyl)oxirane. See n-Butyl glycidyl ether Butoxypolypropylene glycol. See Polypropylene glycol butyl ethers Butoxypropanediol polymer. See Polypropylene glycol butyl ethers 1-Butoxy-2-propanol. See Propylene glycol mono-n-butyl ether 1-tert-Butoxy-2-propanol. See Propylene glycol mono-tertiarybutyl ether n-Butoxypropanol. See Propylene glycol mono-n-butyl ether Butoxytriglycol. See Triethylene glycol mono-n-butyl ether Butter Yellow. See 4-Dimethylaminoazobenzene N-Butyl. See Diisobutylamine Butyl acetate, 4:76 chemical and physical properties, 4:76 exposure assessment, 4:77 air, 4:77 background levels, 4:77 workplace methods, 4:77 odor and warning properties, 4:77 production and use, 4:77

- standards, regulations, or guidelines of exposure, 4:78
- studies on environmental impact, 4:78
- toxic effects, 4:77
 - acute toxicity, 4:77
 - chronic and subchronic toxicity, 4:77
- clinical cases, 4:77, 4:78
- experimental studies, 4:77
- genetic and related cellular effects studies, 4:77
- human experience, 4:77
- pharmacokinetics, metabolism, and mechanisms, 4:77 reproductive and developmental, 4:77
- 1-Butyl acetate. See Butyl acetate
- 2-Butyl acetate. See sec-Butyl acetate
- n-Butyl acetate. See Butyl acetate
- sec-Butyl acetate (98%). See sec-Butyl acetate
- sec-Butyl acetate, 4:79
- chemical and physical properties, 4:79
- exposure assessment
- background levels, 4:80
- workplace methods, 4:80
- odor and warning properties, 4:80
- production and use, 4:80
- standards, regulations, or guidelines of exposure, 4:81

sec-Butyl acetate (Continued) toxic effects. 4:80 acute toxicity, 4:80 chronic and subchronic toxicity, 4:80 clinical cases, 4:80, 4:81 experimental studies, 4:80 human experience, 4:80, 4:81 tert-Butyl acetate (98%). See tert-Butyl acetate tert-Butyl acetate, 4:81 chemical and physical properties, 4:81 exposure assessment, 4:81 workplace methods, 4:81 odor and warning properties, 4:81 standards, regulations, or guidelines of exposure, 4:83 toxic effects acute toxicity, 4:81, 4:82 chronic and subchronic toxicity, 4:82 clinical cases, 4:82 epidemiology studies, 4:82, 4:83 experimental studies, 4:81 human experience, 4:82 pharmacokinetics, metabolism, and mechanisms, 4:82 2-Butylacetic acid. See Caproic acid Butyl acetone. See Methyl n-amyl ketone n-Butyl acrylate, 4:117 chemical and physical properties, 4:118 exposure assessment, 4:118 workplace methods, 4:118 odor and warning properties, 4:118 production and use, 4:118 standards, regulations, or guidelines of exposure, 4:119 studies on environmental impact, 4:120 toxic effects, 4:118 acute toxicity, 4:118 carcinogenesis, 4:119 chronic and subchronic toxicity, 4:118 experimental studies, 4:118 genetic and related cellular effects studies, 4:119 human experience, 4:119 pharmacokinetics, metabolism, and mechanisms, 4:118, 4:119 reproductive and developmental, 4:119 Butylacrylate (inhibited). See n-Butyl acrylate Butyl acrylate (stabilized with 20 ppm of MEHQ). See n-Butyl acrylate Butyl adipate. See n-Dibutyl adipate Butyl α -hydroxypropionate. See n-Butyl lactate 1-Butyl alcohol. See 1-Butanol i-Butyl alcohol. See Isobutanol sec-Butyl alcohol. See 2-Butanol *tert*-Butyl alcohol, **3:**952 chemical and physical properties, 3:952 exposure assessment, **3:**952 guidelines of exposure, 3:955 production and use, 3:952 toxic effects experimental studies, 3:952-955 human experience, 3:955 sec-Butyl alcohol acetate. See sec-Butyl acetate

n-Butyl aldehyde. See n-Butyraldehyde Butyl amine. See n-Butylamine 2-Butylamine, 2:460 chemical and physical properties, 2:461 exposure assessment, 2:461 guidelines of exposure, 2:461 production and use, 2:461 toxic effects, 2:461 n-Butylamine, 2:459 chemical and physical properties, 2:460 exposure assessment, 2:460 guidelines of exposure, 2:460 production and use, 2:460 toxic effects, 2:460 sec-Butylamine. See 2-Butylamine t-Butylamine. See tert-Butylamine tert-Butylamine chemical and physical properties, 2:464 exposure assessment, 2:464 guidelines of exposure, 2:464 production and use, 2:464 toxic effects. 2:464 Butyl 4-aminobenzoate. See Butyl p-aminobenzoate Butyl p-aminobenzoate, 4:182 chemical and physical properties, 4:182 exposure assessment, 4:182 production and use, 4:182 toxic effects. 4:182 acute toxicity, 4:182 clinical cases, 4:183 experimental studies, 4:182 genetic and related cellular effects studies, 4:182 human experience, 4:183 neurological, pulmonary, skin sensitization, 4:182 Butylaminoethanol. See Monobutylethanolamine 2-Butylaminoethanol. See Monobutylethanolamine 2-N,N-n-Butylaminoethanol. See Dibutylethanolamine Butylated hydroxyanisole, 3:630 chemical and physical properties, 3:631 exposure assessment, 3:631 toxic effects. 3:631 animal studies, 3:631-632 human experience, 3:632 Butylbenzene, 2:203 But-1-ylbenzene. See Butylbenzene n-Butylbenzene. See Butylbenzene sec-Butylbenzene, 2:203 tert-Butylbenzene, 2:204 chemical and physical properties, 2:204 environmental impact, studies, 2:204 exposure assessment, 2:204 guidelines of exposure, 2:204 production and use, 2:204 toxic effects. 2:204 Butylbenzenes, 2:203 Butyl benzoate, 4:158 chemical and physical properties, 4:158 odor and warning properties, 4:158 production and use, 4:158

toxic effects, 4:158 acute toxicity, 4:158 experimental studies, 4:158 genetic and related cellular effects studies, 4:159 human experience, 4:159 neurological, pulmonary, skin sensitization, 4:159 n-Butyl benzoate. See Butyl benzoate N-tert-Butyl-2-benzothiazolesulfenamide animal and human studies, 4:1066-1067 chemical and physical properties, 4:1066 Butyl benzyl phthalate, 4:301 chemical and physical properties, 4:302 exposure assessment, 4:302 odor and warning properties, 4:302 production and use, 4:302 standards, regulations, or guidelines of exposure, 4:307 studies on environmental impact, 4:307-4:308 toxic effects, 4:302 acute toxicity, 4:302 carcinogenesis, 4:306 chronic and subchronic toxicity, 4:302 experimental studies, 4:302 genetic and related cellular effects studies, 4:306-4:307 human experience, 4:307 neurological, pulmonary, skin sensitization, 4:307 pharmacokinetics, metabolism, and mechanisms, 4:303-4:306 Butyl β-phenylacrylate. See n-Butyl cinnamate N-Butyl-1-butanamine. See Di-n-butylamine Butyl butanedioate. See n-Dibutyl succinate 2-Butylbutanoic acid. See 2-Ethylhexanoic acid n-Butyl carbinol. See 1-Pentanol tert-Butyl carbinol. See 2,2-Dimethyl-1-propanol Butyl carbobutoxymethyl phthalate. See Butyl phthalyl butyl glycolate tert-Butyl cellosolve. See Ethylene glycol mono-tert-butyl ether Butyl "cellosolve" adipate. See Dibutoxyethyl adipate Butyl cellosolve phthalate. See Dibutoxyethyl phthalate n-Butyl cinnamate chemical and physical properties, 4:176 odor and warning properties, 4:176 production and use, 4:176 standards, regulations, or guidelines of exposure, 4:176 toxic effects, 4:176 experimental studies, 4:176 human experience, 4:176 Butyl citrate. See Tributyl citrate t-Butyl cumyl peroxide. See Cumyl t-butyl peroxide n-Butyl 4,4-Di(t-butylperoxy)valerate, 4:574 chemical and physical properties, 4:574 exposure assessment, 4:575 production and use, 4:574 toxic effects, 4:575 n-Butyl diester. See n-Dibutyl fumarate Butyl diglycol acetate. See Diethylene glycol mono-n-butyl ether acetate Butyl diglycol ether. See Diethylene glycol mono-n-butyl ether t-Butyl α , α -dimethylbenzyl peroxide. See Cumyl t-butyl peroxide Butylene. See 1-Butene

 α -Butylene. See 1-Butene γ-Butylene. See 2-Methylpropene 1,2-Butylene epoxide. See 1,2-Butylene oxide Butylene glycol. See 1,4-Butanediol 1,2-Butylene glycol. See 1,2-Butanediol 1,3-Butylene glycol. See 1,3-Butanediol 1,4-Butylene glycol. See 1,4-Butanediol Butylene glycol adipic acid polyester, 4:847 production and use, 4:847 toxic effects, **4:**847-848 1,3-Butylene glycol diacrylate. See 1,3-Butanediol diacrylate Butylene glycol ethers physical and chemical properties of, 4:819t Butylene glycol mono-*n*-butyl ether, **4**:837 chemical and physical properties, 4:838 guidelines of exposure, 4:838 toxic effects, 4:838 Butylene glycol monoethyl ether, 4:837 chemical and physical properties, 4:837 guidelines of exposure, 4:837 toxic effects, 4:837 Butylene glycol monomethyl ether, 4:836 chemical and physical properties, 4:836 guidelines of exposure, 4:837 toxic effects, 4:836 Butylene glycols. See Butanediols Butylene glycol-terephthalic acid copolymer. See Polybutylene terephthalate (PBT) Butylene glycol-terephthalic acid polymer. See Polybutylene terephthalate (PBT) Butylene hydrate. See 2-Butanol 1-Butylene oxide. See 1,2-Butylene oxide 1,2-Butylene oxide, 4:446 2,3-Butylene oxide, 4:446 chemical and physical properties, 4:447 exposure assessment, 4:447 odor and warning properties, 4:447 production and use, 4:447 standards, regulations, or guidelines of exposure, 4:448 toxic effects, 4:447 acute toxicity, 4:447 carcinogenesis, 4:448 chronic and subchronic toxicity, 4:447 experimental studies, 4:447 genetic and related cellular effects studies, 4:448 human experience, 4:448 neurological, pulmonary, skin sensitization, 4:448 pharmacokinetics, metabolism, and mechanisms, 4:448 reproductive and developmental, 4:448 β-Butylene, pseudobutylene, 2-butylene, dimethylethylene. See 2-Butene Butyl 2,3-epoxypropyl ether. See n-Butyl glycidyl ether *n*-Butyl 2,3-epoxypropyl ether. See *n*-Butyl glycidyl ether O-t-Butyl ester. See t-Butyl monoperoxymaleate t-Butyl ester. See t-Butyl peroxyneodecanoate; Perbenzoic acid Butylester kyseliny p-aminobenzoove [Czech]. See Butyl *p*-aminobenzoate Butylester kyseliny bensoove [Czech]. See Butyl benzoate Butyl ester of methacrylic acid, See n-Butyl Methacrylate

Butyl ethanedioate. See n-Dibutyl oxalate Butyl ethanoate. See Butyl acetate sec-Butyl ethanoate. See sec-Butyl acetate tert-Butyl ethanoate. See tert-Butyl acetate N-Butyl ethanolamine. See Monobutylethanolamine N-n-Butylethanolamine. See Monobutylethanolamine *n*-Butyl ether. See Dibutyl ether Butyl ethyl acetaldehyde. See 2-Ethylhexylaldehyde Butylethylacetic acid. See 2-Ethylhexanoic acid Butylethylene. See 1-Hexene Butyl formate. See n-Butyl formate Butyl fumarate. See n-Dibutyl fumarate Butyl glycidyl ether. See n-Butyl glycidyl ether *n*-Butyl glycidyl ether, **4**:463 chemical and physical properties, 4:464 exposure assessment, 4:464 guidelines of exposure, 4:465 production and use, 4:464 toxic effects experimental studies, 4:464-465 human experience, 4:465 Butyl glycol butyl phthalate. See Butyl phthalyl butyl glycolate Butyl glycol ether. See Ethylene glycol mono-n-butyl ether n-Butyl glycol phthalate. See Dibutoxyethyl phthalate t-Butyl hydroperoxide, 4:575 chemical and physical properties, 4:575-576 environmental impact, studies, 4:580-581 exposure assessment, 4:576 guidelines of exposure, 4:581 production and use, 4:576 toxic effects experimental studies, 4:577-580 human experience, 4:580 Butyl hydroxide. See 1-Butanol t-Butyl hydroxide. See tert-Butyl alcohol α -Butyl- ω -hydroxy-. See Polypropylene glycol butyl ethers Butyl 4-hydroxybenzoate. See Butyl paraben n-Butyl p-hydroxybenzoate. See Butyl paraben Butyl p-hydroxybenzoate. See Butyl paraben tert-Butyl 2-hydroxyethyl ether, ethylene glycol;. See Ethylene glycol mono-tert-butyl ether Butyl 2-hydroxypropanoate. See n-Butyl lactate OO-t-butyl O-isopropyl ester. See t-Butyl peroxyisopropylcarbonate OO-t Butyl O-isopropyl monoperoxycarbonate. See t-Butyl peroxyisopropylcarbonate Butyl lactate. See n-Butyl lactate *n*-Butyl lactate, **4:**131 chemical and physical properties, 4:131 exposure assessment, 4:131 workplace methods, 4:131 odor and warning properties, 4:131 production and use, 4:131 standards, regulations, or guidelines of exposures, 4:132 toxic effects, 4:132 acute toxicity, 4:132 chronic and subchronic toxicity, 4:132 clinical cases, 4:132 epidemiology studies, 4:132

experimental studies, 4:132 human experience, 4:132 pharmacokinetics, metabolism, and mechanisms, 4:132 Butyl maleate. See Dibutyl maleate n-Butyl mercaptan animal and human studies, 4:1046-1047 chemical and physical properties, 4:1046 exposure assessment, regulations, and standards, 4:1046 production and use, 4:1046 sec-Butyl mercaptan, 4:1047 animal and human studies, 4:1048 chemical and physical properties, 4:1047 exposure assessment, regulations, and standards, 4:1048 production and use, 4:1047-1048 tert-Butyl mercaptan, 4:1048 animal and human studies, 4:1048 chemical and physical properties, 4:1048 Butyl mercaptans, 4:1046 Butyl 2-methacrylate, See n-Butyl Methacrylate *n*-Butyl methacrylate, **4:**124 chemical and physical properties, 4:124 odor and warning properties, 4:124 production and use, 4:124 toxic effects, 4:124 acute toxicity, 4:124, 4:125 experimental studies, 4:124 genetic and related cellular effects studies, 4:125 human experience, 4:125 reproductive and developmental, 4:125 Butyl methacrylate (stabilized with 25 ppm of methylhydroquinone), See n-Butyl Methacrylate Butyl methanoate. See n-Butyl formate n-Butyl methanoate. See n-Butyl formate Butyl 2-methylacrylate, See *n*-Butyl Methacrylate tert-Butyl methyl carbinol. See 3,3-Dimethyl-2-butanol tert-Butyl-methyl ether. See Methyl t-butyl ether Butyl-2-methyl-2-propenate, See *n*–Butyl Methacrylate Butyl 2-methyl-2-propenoate, See n-Butyl Methacrylate N-Butyl monoethanolamine. See Monobutylethanolamine t-Butyl monoperoxymaleate, 4:558 chemical and physical properties, 4:558 exposure assessment, 4:558 toxic effects, 4:558 sec-Butyl Nitrite, 2:394 tert-Butyl Nitrite, 2:394 chemical and physical properties, 2:395 production and use, 2:395 toxic effects. 2:395 Butyl nitrites, 2:394 Butylowy alkohol. See 1-Butanol Butyl PABA. See Butyl p-aminobenzoate Butyl paraben, 4:172 chemical and physical properties, 4:172 odor and warning properties, 4:172 production and use, 4:172 toxic effects, 4:172 acute toxicity, 4:172 experimental studies, 4:172 genetic and related cellular effects studies, 4:172

human experience, 4:173 neurological, pulmonary, skin sensitization, 4:173 pharmacokinetics, metabolism, and mechanisms, 4:172 reproductive and developmental, 4:172 n-Butyl parahydroxybenzoate. See Butyl paraben t-Butyl peracetate. See t-Butyl peroxyacetate t-Butyl perbenzoate. See Perbenzoic acid t-Butyl percrotonate. See t-Butyl peroxycrotonate t-Butyl perneodecanoate. See t-Butyl peroxyneodecanoate t-Butyl peroctoate. See t-Butyl peroxy-2-ethylhexanoate t-Butyl peroxide. See Di-t-butyl peroxide tert-Butyl peroxide. See Di-t-butyl peroxide t-Butyl peroxyacetate, 4:547 chemical and physical properties, 4:548 exposure assessment, 4:548 production and use, 4:548 toxic effects, 4:548 t-Butyl peroxybenzoate. See Perbenzoic acid t-Butyl peroxycrotonate, 4:555 chemical and physical properties, 4:555 exposure assessment, 4:555 production and use, 4:555 toxic effects, 4:555 Butyl peroxydicarbonate. See Di-n-butyl peroxydicarbonate n-Butyl peroxydicarbonate. See Di-n-butyl peroxydicarbonate sec-Butyl peroxydicarbonate. See Di(sec-butyl) Peroxydicarbonate t-Butyl peroxy-2-ethylhexanoate, 4:552 chemical and physical properties, 4:553 toxic effects, 4:553 t-Butyl peroxy-2-ethylhexylcarbonate, 4:554 chemical and physical properties, 4:554 exposure assessment, 4:555 production and use, 4:554 t-Butyl peroxyisononanoate. See t-Butyl peroxy-3,5,5trimethylhexanoate t-Butyl peroxyisopropylcarbonate, 4:557 chemical and physical properties, 4:558 exposure assessment, 4:558 toxic effects, 4:558 t-Butyl peroxymaleic acid. See t-Butyl monoperoxymaleate 4-(t-Butylperoxy)-4-methyl-2-pentanone, 4:571 chemical and physical properties, 4:571 exposure assessment, 4:571 production and use, 4:571 toxic effects, 4:571 t-Butyl peroxyneodecanoate, 4:554 chemical and physical properties, 4:554 exposure assessment, 4:554 production and use, 4:554 toxic effects, 4:554 t-Butyl peroxypivalate, 4:548 chemical and physical properties, 4:548-550 exposure assessment, 4:550 toxic effects. 4:550 tert-Butyl peroxypivalate. See t-Butyl peroxypivalate t-Butyl peroxy-3,5,5-trimethylhexanoate, 4:553 chemical and physical properties, 4:554 exposure assessment, 4:554 production and use, 4:554

toxic effects, 4:554 t-Butyl perpivalate. See t-Butyl peroxypivalate 4-t-Butylphenol. See p-tert-Butylphenol p-tert-Butylphenol, 2:326 chemical and physical properties, 2:327 guidelines of exposure, 2:327 production and use, 2:327 toxic effects, 2:327 1-(p-tert-Butylphenoxy)-2,3-epoxy propane,. See p-(t-Butyl) phenyl glycidyl ether Butyl phenylacrylate. See n-Butyl cinnamate n-Butyl phenylacrylate. See n-Butyl cinnamate p-(t-Butyl)phenyl glycidyl ether, 4:475 chemical and physical properties, 4:476 exposure assessment, 4:476 guidelines of exposure, 4:477 production and use, 4:476 toxic effects, 4:476 experimental studies, 4:476-477 human experience, 4:477 Butyl 3-phenylpropenoate. See n-Butyl cinnamate Butyl 3-phenyl-2-propenoate. See n-Butyl cinnamate Butyl phosphate. See Tributyl phosphate Butyl phthalate butyl glycolate. See Butyl phthalyl butyl glycolate Butyl phthalyl butyl glycolate, 4:313 chemical and physical properties, 4:313 odor and warning properties, 4:313 production and use, 4:313 toxic effects, 4:314 acute toxicity, 4:314 carcinogenesis, 4:314 chronic and subchronic toxicity, 4:314 neurological, pulmonary, skin sensitization, 4:314 pharmacokinetics, metabolism, and mechanisms, 4:314 reproductive and developmental, 4:314 Butyl 2-propenoate. See n-Butyl acrylate n-Butyl propenoate. See n-Butyl acrylate O-(2-tert-Butylpyrimidin-5-yl) o-ethyl O-isopropyl phosphorothioate. See Phostebupirim Butyl rubber, 4:900 chemical and physical properties, 4:900 guidelines of exposure, 4:901 production and use, 4:900-901 Butyl sebacate. See Dibutyl sebacate S-tert-Butylthiomethyl O,O-diethyl phosphorodithioate. See Terbufos t-Butyl trimethylperoxyacetate. See t-Butyl peroxypivalate Butynone. See 3-Butyn-2-one 1-Butyn-3-one. See 3-Butyn-2-one 3-Butyn-2-one, 3:778 chemical and physical properties, 3:778 environmental impact, studies, 3:779 exposure assessment, 3:779 guidelines of exposure, 3:779 production and use, 3:778 toxic effects experimental studies, 3:779 human experience, 3:779

n-Butyraldehyde, **3:**665 chemical and physical properties, 3:665-666 environmental impact, studies, 3:667 exposure assessment, 3:666 guidelines of exposure, 3:667 production and use, 3:666 toxic effects experimental studies, 3:666-667 human experience, 3:667 Butyrates, 4:186 Butyric acid, 3:482. See Ethyl butyrate chemical and physical properties, 3:482 guidelines of exposure, 3:484 production and use, 3:482 toxic effects experimental studies, 3:482-483 human experience, 3:483 n-Butyric acid ethyl ester. See Ethyl butyrate Butyric acid, methyl ester. See Methyl butyrate n-Butyric acid methyl ester. See Methyl butyrate Butyric acid, 3-methyl-, ethyl ester. See Ethyl isovalerate Butyric acid triester with glycerin. See Glyceryl tributyrate Butyric aldehyde. See n-Butyraldehyde Butyric ester. See Ethyl butyrate Butyric ether. See Ethyl butyrate Butyric iso aldehyde. See Isobutyraldehyde Butyrin. See Glyceryl tributyrate Butyrin-tri. See Glyceryl tributyrate Butyrone. See Di-n-propyl Ketone *n*-Butyronitrile chemical and physical properties, 2:950t-951t, 2:968 experimental studies, 2:968-969 exposure assessment, 2:968 exposure standards, 2:969 odor and warning properties, 2:968 production and use, 2:968 toxic effects, 2:968-969 Butyrylcholinesterase, 1:60 Butyryl triglyceride. See Glyceryl tributyrate 1-Bydroxy-2-phenoxyethane. See Ethylene glycol monophenyl ether Byssinosis prevalence median dust level, 5:491f BZ. See Benzidine BZF-60. See Dibenzoyl peroxide Cable oil. See White oils CACP. See cis-Diamminedichloroplatinum(ii) Cadaverine. See Pentamethylenediamine Cadco 0115. See Polystyrene Cadet. See Dibenzoyl peroxide Cadmium, 1:185 chemical and physical properties, 1:185 exposure assessment, 1:186 air, 1:186 analytical methods, 1:186 background levels, 1:186 biomonitoring/biomarkers, 1:187-188

community methods, 1:187

workplace methods, 1:187 exposure limits, 1:201t production and use, 1:185-186 standards, regulations, or guidelines of exposure, 1:201 studies on environmental impact, 1:202 toxic effects, 1:188, 1:189t-191t carcinogenesis, 1:200-201 clinical cases, 1:195 epidemiology studies, 1:197-200 experimental studies, 1:188-195 exposure limits, 1:201t genetic and related cellular effects studies, 1:201 human experience, 1:195-197 neurological, pulmonary, and skin sensitization, 1:201 Cadmium chloride, 1:202 chemical and physical properties, 1:203 exposure assessment, 1:203 production and use, 1:203 standards, regulations, or guidelines of exposure, 1:201t, 1:203 studies on environmental impact, 1:203 toxic effects, 1:203 Cadmium-induced proteinuria, 1:191 Cadmium-induced renal damage, 1:192 Cadmium oxide, 1:203 chemical and physical properties, 1:203 exposure assessment, 1:203 production and use, 1:203 toxic effects. 1:203 Cadmium sulfate carcinogenesis, 1:194, 1:200 toxic effects, 1:200 Cadmium sulfide, 1:204 chemical and physical properties, 1:204 exposure assessment, 1:204 production and use, 1:204 standards, regulations, or guidelines of exposure, 1:204 studies on environmental impact, 1:204 toxic effects, 1:204 Cajeputene. See Limonene Calcium, 1:148 chemical and physical properties, 1:148 exposure assessment, 1:149 air, 1:149 biomonitoring/biomarkers, 1:149 human experience, 1:150-151 production and use, 1:148-149 standards, regulations, or guidelines of exposure, 1:151 toxic effects, 1:149 epidemiology studies, 1:151 experimental studies, 1:149 human experience, 1:150-151 mechanisms and agents associated with sustained elevated intracellular level, 1:150t Calcium carbide. 1:148 Calcium chloride (anhydrous), 1:1073 Calcium cyanamide, 1:148, 1:150, 1:151 chemical and physical properties, 2:950t-951t, 2:956 experimental studies, 2:956-957 exposure assessment, 2:956

exposure standards, 2:957 human experience, 2:957 pharmacokinetics, metabolism, and mechanisms, 2:957 production and use, 2:956 toxic effects, 2:956-957 Calcium cyanide chemical and physical properties, 2:950t-951t, 2:953 exposure assessment, 2:954 exposure standards, 2:954 odor and warning properties, 2:953 production and use, 2:954 toxic effects, 2:954 Calcium EDTA, 1:148 Calcium fluoride, 1:1052 chemical and physical properties, 1:1052, 1:1052t exposure assessment, 1:1053 miscellaneous fluorides, 1:1057 exposure limits, 1:1058t-1059t production and use, 1:1052-1053 standards for exposure to fluoride dusts, 1:1056t standards, regulations, or guidelines of exposure, 1:1056-1057 toxic effects, 1:1053 human experience, 1:1053-1056 Calcium gluconate, 1:148, 1:1045 Calcium hydroxide, 1:151 Calcium hypochlorite, 1:1080-1081 Calcium metabolism, 1:192 Calcium-modifying drugs, 1:391 Calcium oxide, 1:150, 1:151, 1:900 Calcium phosphate nanocomposite particles (CPNPs), 1:149 C₈ alcohols 2-ethyl-4-methyl-1-pentanol, 4:11 2,2,4-trimethyl-1-pentanol, 4:11 C16 alcohols, 4:21 chemical and physical properties, 4:21 exposure assessment, 4:21 production and use, 4:21 toxic effects, 4:21 acute toxicity, 4:21 carcinogenesis, 4:21 chronic and subchronic toxicity, 4:21 clinical cases, 4:21 experimental studies, 4:21 genetic and related cellular effects studies, 4:21 pharmacokinetics, metabolism, and mechanisms, 4:21 C₁₈ alcohols chemical and physical properties, 4:22 exposure assessment, 4:22 production and use, 4:22 toxic effects, 4:22 acute toxicity, 4:22 chronic and subchronic toxicity, 4:22 clinical cases. 4:22 experimental studies, 4:22 genetic and related cellular effects studies, 4:22 pharmacokinetics, metabolism, and mechanisms, 4:22 reproductive and developmental, 4:22 Calmathion. See Malathion

Camphene, 2:144 chemical and physical properties, 2:144 environmental impact, studies, 2:145 exposure assessment, 2:145 guidelines of exposure, 2:145 production and use, 2:144-145 toxic effects, 2:145 Canadol. See Petroleum ether Cancer aluminum smelting, 1:245 bone, 1:16 breast, 1:15 chemotherapy, 1:102 colon, 1:263 cytostatic effects, 1:24 fatal/nonfatal, 1:19 gallium nitrate, 1:283 head, 1:160 ionizing radiation, 1:1-19 lung, 1:15, 1:118, 1:136, 1:200 radiation, 1:13, 1:15 radionuclides. 1:4 radium, 1:160 in skeletal and nasal sinuses, 1:16 spirogermanium, 1:360 Cancer epidemiology causal criteria, 6:455 criteria for determining causality, 6:455t Cancer hazard identification, 6:459 Capric acid, 3:499 chemical and physical properties, 3:500 exposure assessment, 3:500 guidelines of exposure, 3:500-501 production and use, 3:500 toxic effects experimental studies, 3:500 human experience, 3:500 Capric acid triglyceride. See Glyceryl tridecanoate Capric alcohol. See 1-Decanol Caprin. See Glyceryl tridecanoate Caprinic acid. See Capric acid Caproaldehyde. See Hexanal Caproic acid, 3:488 chemical and physical properties, 3:488 guidelines of exposure, 3:488 production and use, 3:488 toxic effects, 3:488 experimental studies, 3:488 human experience, 3:488 n-Caproic acid. See Caproic acid Caproic acid (hexanoic acid). See Caproic acid Caproic acid ethyl ester. See Ethyl caproate n-Caproic acid ethyl ester. See Ethyl caproate Caproic aldehyde. See Hexanal Caproic triglyceride. See Glyceryl trihexanoate Capronic acid. See Caproic acid Capryilic acid triglyceride. See Glyceryl trioctanoate Capryl alcohol. See 1-Octanol; 2-Octanol

n-Capryl alcohol. See 1-Octanol

Caprylic acid, 3:493 chemical and physical properties, 3:493 exposure assessment, 3:493 guidelines of exposure, 3:494 production and use, 3:493 toxic effects experimental studies, 3:493-494 human experience, 3:494 Caprylic acid ethyl ester. See Ethyl caprylate n-Caprylic acid ethyl ester. See Ethyl caprylate Caprylic acid, 1,2,3-propanetriyl ester. See Glyceryl trioctanoate Caprylic alcohol. See 1-Octanol n-Caprylic alcohol. See 1-Octanol sec-Caprylic alcohol. See 2-Octanol Caprylin. See Glyceryl trioctanoate Capsicum annuum 1. See Acetals Captafol, 2:750 acute toxicity, 2:751t genotoxicity of, 2:756t Captan, 2:750 acute toxicity, 2:751t genotoxicity of, 2:756t Carbamate insecticides, 1:60 Carbazole, 5:418 chemical and physical properties, 5:419 exposure assessment, 5:419 guidelines of exposure, 5:420 production and use, 5:419 toxic effects, 5:419-420 Carbazotic acid. See Picric acid Carbendazim, 2:760 Carbethoxyacetic ester. See Diethyl malonate p-Carbethoxyaniline. See Ethyl p-aminobenzoate 4-Carbethoxyaniline. See Ethyl p-aminobenzoate Carbethoxymethyl ethyl phthalate. See Ethyl phthalyl ethyl glycolate Carbethoxyphenol. See Ethyl paraben p-Carbethoxyphenol. See Ethyl paraben Carbide 6-12. See 2-Ethyl-1,3-hexanediol Carbinol. See Methanol Carbitol. See Diethylene glycol Carbo-cort. See Coal tar Carbolic acid. See Phenol Carbolon. See Silicon carbide Carbomer. See Polyacrylic acid Carbomethane. See Ketene Carbomethoxyaniline. See Methyl o-aminobenzoate 2-Carbomethoxyaniline. See Methyl o-aminobenzoate 4-Carbo-methoxyaniline. See Methyl p-aminobenzoate 4-(Carbomethoxyl)aniline. See Methyl p-aminobenzoate 2-Carbomethoxyphenol. See Salicylates p-Carbomethoxyphenol. See Methyl Paraben Carbona. See Carbon tetrachloride Carbon bichloride. See Tetrachloroethylene Carbon black, 5:429 acetylene black process, 5:431 as airborne PM, 5:447 animal studies, 5:439 CB and Lung tumors, 5:442-445

noncancerous effects, 5:439-442 channel black process, 5:431 chemical identification and commercial names, 5:430t exposure assessment exposed population, 5:434 sampling methods, 5:434 workplace exposure studies, 5:434-436 fugitive emissions analysis, 5:436 healthimplications of exposure, 5:436 case-control studies, 5:438-439 morbidity studies, 5:439 mortality studies, 5:436-438 lampblack process, 5:431 nature of, 5:429 oil furnace process, 5:430-431, 5:431t physical and chemical properties, 5:432-433 production and uses, 5:429 standards and guidelines carcinogenicity assessment, 5:445-446 occupational guidelines, 5:446-447 thermal black process, 5:431, 5:431t types of, 5:432t Carbon dichloride. See Tetrachloroethylene Carbon dioxide, 1:961 chemical and physical properties, 1:961 exposure, 1:962 production and use, 1:961-962 standards, regulations, or guidelines of exposure, 1:963-964 toxic effects, 1:962 experimental studies, 1:962-963 human experience, 1:962-963 Carbon disulfide, 1:53, 1:872 exposure assessment, 1:873 physical and chemical properties, 1:865t, 1:872 production and use, 1:873 standards, regulations, or guidelines of exposure, 1:875 toxic effects, 1:873 experimental studies, 1:873-874 human experience, 1:874-875 Carbon hexachloride. See Hexachloroethane Carbonic acid, cyclic ethylene ester. See Ethylene carbonate Carbonic acid, cyclic propylene ester. See Propylene carbonate Carbonic acid diethyl ester. See Dimethyl carbonate Carbonic acid dimethyl ester. See Dimethyl carbonate Carbonic anhydrase, 6:316f Carbon lampblack. See Carbon black Carbon monoxide, 1:949 chemical and physical properties, 1:949 exposure assessment, 1:951-955 exposure standards, 1:960-961 production and use, 1:949-951 standards, regulations, or guidelines of exposure, 1:959 effects of mixtures, 1:959 measurement techniques, 1:959-960 therapy, 1:960 toxic effects, 1:955 acute toxicity, 1:955 chronic and subchronic toxicity, 1:955 experimental studies, 1:955
human experience, 1:955-959 reproductive and developmental, 1:955 Carbon monoxide diffusing capacity (DL_{CO}), 1:177, 1:1066 Carbon monoxide elimination, 1:953f Carbonochloric acid, methyl ester. See Methyl chloroformate Carbonochloride acid, 1-methylethyl ester. See Isopropyl chloroformate Carbonochloridic acid, methyl ester. See Methyl chloroformate Carbonochloridic acid 1-methylethyl ester. See Isopropyl chloroformate Carbonochloridic acid propyl ester. See Propyl chloroformate Carbon oil. See Benzene Carbon tet. See Carbon tetrachloride Carbon tetrabromide. 3:47 chemical and physical properties, 3:48 exposure assessment, 3:48 guidelines of exposure, 3:49 toxic effects, 3:48 experimental studies, 3:48-49 Carbon tetrachloride, 3:40 chemical and physical properties, 3:40-41 exposure assessment, 3:41-42 guidelines of exposure, 3:47 production and use, 3:41 toxic effects, 3:42-47 experimental studies, 3:43-46 human experience, 3:46-47 Carboplatin, 1:727 induced ototoxicity, 1:728 Carbopol 940. See Polyacrylic acid Carborundum. See Silicon carbide Carbowax. See Polyethylene glycol methyl ethers Carbowax 200. See Polyethylene glycols Carbowax PEG 400. See Polyethylene glycols Carbowax PEG 8000. See Polyethylene glycols Carboxyacetic acid. See Malonic acid Carboxyethane. See Propionic acid Carboxymethyl cellulose, 3:644, 4:946 chemical and physical properties, 4:946 environmental impact, studies, 4:946 exposure assessment, 4:946 guidelines of exposure, 4:946 production and use, 4:946 toxic effects, 3:644-645, 4:946 Carboxymethyl cellulose ether. See Carboxymethyl cellulose Carboxymethyl cellulose, sodium salt. See Sodium carboxymethyl cellulose Carboxy-terminal telopeptide (CTx), 1:789 Carcinogenesis. See Carcinogenicity Carcinogenic activity factors impacting evaluations, 6:462t IARC and NTP classifications and OSHA workplace standards. 6:471t-475t IARC classification of agents, 6:468t IARC, occupational exposure, 6:476t Carcinogenic aromatic amines, 2:609 Carcinogenicity, 1:84, 4:903 of calcium chromate, 1:150

hexavalent chromium compounds, 1:568 of lead. 1:405 metal-induced renal, 1:99 of MgO, 1:147 on nickel chloride, 1:682 nonsubstance-specific mechanism, 1:659 potassium bromate-contaminated drinking water, 1:1092 of sodium hypochlorite, 1:1085 of welding fumes, 1:1054 Carcinogens, dose-response assessment, 6:479 Carcinogens RoC NTP categories for listing in NTP report, 6:469t Cardiac arthymias, ingestion of cesium salts, 1:945 Cardiac effects in acute hydrogen sulfide intoxication, 1:872 Cardiovascular disease (CVS), 6:353 Cardolite NC-513. See Epichlorohydrin Carinex gp. See Polystyrene Carmellose. See Carboxymethyl cellulose; Carboxymethylcellulose Carnea 21. See White oils Carpal tunnel syndrome, 6:254 clinical manifestations, 6:256 diagnosis, 6:256 etiology of, 6:255 normal anatomy, 6:255 pathogenesis of, 6:255-256 risk factors of, 6:255 treatment of, 6:256 Carrageenan-induced arthritis, 1:708 Carvene. See Limonene Caryophyllene, 2:145 chemical and physical properties, 2:146 exposure assessment, 2:146 guidelines of exposure, 2:147 production and use, 2:146 toxic effects, 2:146-147 β-Caryophyllene. See Caryophyllene trans-Caryophyllene. See Caryophyllene Casewell No. 082. See Benzyl benzoate Casewell No. 447. See Ethyl paraben Casewell No. 577. See Salicylates Casewell No. 714. See Propyl paraben Casewell No. 430A. See Ethyl p-aminobenzoate Casewell No. 049AA. See Amyl salicylate Casewell No. 293 [NLM]. See n-Dibutyl succinate Casewell No. 573PP. See Methyl paraben Caspase 8/t-Bid pathways, 1:436 Cassia aldehyde. See Cinnamaldehyde Cassiterite, 1:362 Castor oil acid. See Ricinoleic acid Castor oil glycidyl ether, 4:509 exposure assessment, 4:509 guidelines of exposure, 4:510 toxic effects experimental studies, 4:509-510 CAT activity after hyperoxia, 1:991 Catalytic reformed naphtha. See Petroleum distillates

Catalytic reformer fractionator residue, low-boiling. See Petroleum distillates Cataracts, of optic lens, 1:15 late nonstochastic tissue effects, 1:15 Catechol. See Pyrocatechol Catecholamine inhibitors, 1:990 Catechol-pyrocatechol. See Pyrocatechol CAT SYS tremor test, 1:615 CB. See Methylene chlorobromide CBCP. See 1,2-Dibromo-3-chloropropane CBM. See Methylene chlorobromide CCRIS 541. See Propyl gallate CCRIS 941. See Diethyl maleate CCRIS 1349. See Methyl o-aminobenzoate CCRIS 3946. See Methyl paraben CCRIS 4136. See Dibutyl maleate CCRIS 4859. See Phenyl salicylate CCRIS 5568. See Dodecyl gallate CCRIS 5851. See Methyl benzoate CCRIS 5881. See Glyceryl monoacetate CCRIS 5891. See Butyl p-aminobenzoate CCRIS 6191. See Di(2-ethylhexyl) sebacate CCRIS 6259. See Salicylates CCRIS 7232. See Dimethyl itaconate CDNA. See 2,6-Dichloro-4-nitroaniline Celacol m. See Methyl cellulose Celacol m20. See Methyl cellulose Celacol m450. See Methyl cellulose Celacol mm. See Methyl cellulose Celacol mm 10p. See Methyl cellulose Celacol m 20p. See Methyl cellulose Celevac. See Methyl cellulose Cellapret. See Methyl cellulose Cell-cell communication, 1:885 Cell death, 1:7, 1:9, 1:15, 1:274, 1:321, 1:436, 1:524, 1:862, 1:935, 1:984. 1:1068 Cellex. See Sodium carboxymethyl cellulose Cellitazol B. See 3,3'-Dimethoxybenzidine Cellitazol BN. See 3,3'-Dimethoxybenzidine Cellogran. See Methyl cellulose Cellophane. See Cellulosics Cellosize. See Hydroxyethylcellulose Cellosize UT 40. See Hydroxyethylcellulose Cellothyl. See Methyl cellulose Cell-signaling mechanisms, 1:409 Cell-signaling pathways, 1:390 Cell survival in tissues, 1:9 Cellular iron deficiency, 1:259 Cellulose. See Hydroxypropyl methylcellulose Cellulose acetate, 4:940 chemical and physical properties, 4:940 production and use, 4:940 toxic effects, 4:940 Cellulose acetate butanoate. See Cellulose acetate butyrate Cellulose acetate butyrate, 4:941 chemical and physical properties, 4:941 production and use, 4:941 Cellulose, carboxy methyl ether. See Carboxymethylcellulose

Cellulose carboxymethyl ether, sodium. See Sodium carboxymethyl cellulose Cellulose CM. See Carboxymethyl cellulose Cellulose derivatives properties of, 4:938t Cellulose ether. See Ethyl cellulose Cellulose ethers, 3:641 exposure assessment, 3:642 general physical and chemical properties, 3:641-642 toxic effects, 3:642 Cellulose, ethylene oxide-grafted. See Hydroxyethyl cellulose; Hydroxyethylcellulose Cellulose ethyl ether. See Ethyl cellulose Cellulose glycolic acid, sodium salt, GMC. See Carboxymethylcellulose Cellulose, 2-hydroxyethyl ether. See Hydroxyethylcellulose Cellulose 2-hydroxypropyl ester. See Hydroxypropyl methyl cellulose Cellulose, 2-hydroxypropyl ether. See Hydroxypropyl cellulose Cellulose, 2-hydroxypropyl methyl ether. See Hydroxypropyl methyl cellulose Cellulose methyl. See Methyl cellulose Cellulose methylate. See Methylcellulose Cellulose methyl ether. See Ethylcellulose; Methylcellulose Cellulose nitrate, 4:942 chemical and physical properties, 4:942 environmental impact, studies, 4:942 exposure assessment, 4:942 production and use, 4:942 toxic effects, 4:942 Cellulose-polyacrylonitrile copolymer. See Polyacrylonitrile Cellulose-polyacrylonitrile graft copolymer. See Polyacrylonitrile Cellulose, polymer with 2-propenenitrile. See Polyacrylonitrile Cellulose sodium glycolate. See Sodium carboxymethyl cellulose Cellulose triacetate, 4:941 chemical and physical properties, 4:941 production and use, 4:941 toxic effects, 4:941 Cellulosic polymers inhalation and thermal degradation data, 4:939t Cellulosics. 4:935 chemical and physical properties, 4:935 production and use, 4:935-936 toxic effects animal studies, 4:936-940 human experience, 4:940 Cellumeth. See Methyl cellulose Cementite (Fe₃C), 1:638 Cement kiln dust. See Portland cement Cement, portland, chemicals. See Portland cement CENEX RP B2. See Isobutyric acid Centers for Disease Control and Prevention (CDC), 1:779 Central nervous system (CNS), 1:9, 1:11, 1:39, 1:42, 1:217, 1:245, 1:624, 1:678, 1:790, 1:955, 1:1053, 1:1065, 2:974 clinical signs, 2:735 O2 toxicity, 1:992 Century 1210. See Stearic acid Century 1220. See Stearic acid Century 1230. See Stearic acid

Century 1240. See Stearic acid Century cd fatty acid. See Oleic acid Cerebral arterial gas embolism (CAGE), 6:298 Cerebrospinal fluid (CSF), 1:238, 1:240, 1:242, 1:335, 1:399, 1:498, 1:620, 1:737 Cerium oxide, in polishing, 1:821 Certinal. See 4-Aminophenol; p-Aminophenol Ceruloplasmin levels, 1:173 Cervonic acid. See Docosahexaenoic acid Cesium, 1:944 chemical and physical properties, 1:944 exposure assessment, 1:945 production and use, 1:944-945 toxic effects, 1:945 Cetane. See Hexadecane n-Cetane. See Hexadecane Cetanol. See C₁₆ Alcohols Cethylose. See Methyl cellulose Cethytin. See Methyl cellulose Cetylacetic acid. See Stearic acid Cetyl alcohol. See C16 Alcohols Cetylic acid. See Palmitic acid Ceviaan HL. See Styrene-acrylonitrile (SAN) CFC 11. See Trichlorofluoromethane CFC 12. See Dichlorodifluoromethane CFC 13. See Chlorotrifluoromethane CFC 112. See 1,1,2,2-Tetrachloro-1,2-difluoroethane CFC 114. See 1.2.-Dichloro-1.1.2.2-tetrafluoroethane CFC 115. See 1-Chloro-1,1,2,2,2-Pentafluoroethane CFC 112a. See 1,1,1,2-Tetrachloro-2,2-difluoroethane CFC 114a. See 1,1,-Dichloro-1,2,2,2-tetrafluoroethane o-CGE. See Cresyl glycidyl ethers CHA. See Cyclohexylamine Chagas' disease, 3:429 Chalcedony. See Silicon dioxide Chalcopyrite (CuFeS₂), 1:373, 1:374 Channel black. See Carbon black Chelatable lead, 1:387 Chelation therapy, 1:399 ChemBioFinder, 5:52 Chemical carcinogenesis, dose-response models of, 6:484f Chemical carcinogens, 1:12, 1:13, 1:663 Chemical Innovations Institute (CII), 5:39 Chemicals, modulating radiation effects, 1:10 Chemical toxicity information resources ATSDR ToxFAQs, 5:64 ATSDRToxGuides, 5:64 books, 5:62-63 comprehensive reviews, 5:60-62 data banks, 5:59-60 drinking water quality, 5:63 ERICards/ERICs, 5:63 ERSH-DB, 5:63 GESTIS-substance database, 5:63 Hazardous Substance List, 5:64 health and safety guides (HSGs), 5:63 international chemical safety cards (ICSCs), 5:63-65 material safety data sheets/safety data sheets (MSDSs/SDSs), 5:64

NIOSH guidelines summarize information, 5:64 NIOSH Pocket Guide, 5:64 Office of Pollution Prevention and Toxics (OPPT), 5:64 original research, 5:58-59 pesticide information profiles (PIPs), 5:64 relational databases, 5:62 WISER, 5:64 Chemiluminescence, 1:1001 Chemoreceptors, 1:982 Chernobyl, 1:16, 1:17, 1:542 nuclear plant accident, 1:945 and thyroid cancer, 1:1097 "Cherry death," 2:947 Chert. See Silicon dioxide China clay. See Kaolin China in boron mining, and processing workers, 1:903 Chinoleine. See Quinoline Chinoline. See Quinoline Chloral, anhydrous. See Trichloroacetaldehyde Chloraldurat. See Chloral hydrate Chloral hydrate, 3:696 chemical and physical properties, 3:699 production and use, 3:699 toxic effects, 3:699-700 Chlorallylene. See Allyl chloride Chlorambucil, 2:715 Chlor chloroethene homopolymer. See Polyvinyl chloride Chlordane. 3:446 chemical and physical properties, 3:446 environmental impact, studies, 3:449 exposure assessment, 3:446 guidelines of exposure, 3:449 production and use, 3:446 toxic effects experimental studies, 3:447-448 human experience, 3:448-449 Chlorethoxyphos, 4:1105 chemical and physical properties, 4:1105 exposure assessment, 4:1105-1106 guidelines of exposure, 4:1107 production and use, 4:1105 toxic effects, 4:1106 experimental studies, 4:1106-1107 Chloric acid, 1:1079, 1:1080 Chlorinated benzenes cancer classifications for, 3:325t carcinogenesis bioassays, 3:324t Chlorinated diphenyl ether. See Chlorinated diphenyl oxide Chlorinated diphenyl oxide, 3:638 chemical and physical properties, 3:638 exposure assessment, 3:638 guidelines of exposure, 3:640 toxic effects experimental studies, 3:638-640 human experience, 3:640 Chlorinated diphenyl oxide (1,1'-Oxy-bischlorobenzene). See Chlorinated diphenyl oxide Chlorinated hydrocarbon insecticides regulatory standings of, 3:430t

Chlorinated insecticides carcinogenicity classification, 3:431t Chlorinated methanes, 3:1 Chlorinated mononitroparaffins, 2:366 chemical and physical properties of, 2:368 Chlorinated nitrobenzene compounds, 2:659 U.S. production/import volume ranges of, 2:610-611 Chlorinated phenyl ethers, 3:638 Chlorinated polyethylene, 4:901 chemical and physical properties, 4:901-902 production and use, 4:902 toxic effects, 4:902 Chlorinated polyethylene (CMS). See Polyethylene Chlorinating agent, as thionyl chloride (SOCl₂), 1:876 Chlorine, 1:1057 chemical and physical properties, 1:1059 and compounds, 1:1057 exposure assessment, 1:1061 production and use, 1:1060-1061 properties of chlorine salts containing oxygen, 1:1060t standards, regulations, or guidelines of exposure, 1:1066-1067 toxic effects, 1:1061 carcinogenesis, 1:1062 clinical cases, 1:1062-1064 epidemiology studies, 1:1064-1066 experimental studies, 1:1061-1062 genetic and related cellular effects studies, 1:1062 human experience, 1:1062 subchronic and chronic toxicity, 1:1062 toxicokinetics, metabolism, and mechanisms, 1:1062 Chlorine dioxide, 1:1075 chemical and physical properties, 1:1075, 1:1075t exposure assessment, 1:1076 production and use, 1:1076 standards, regulations, or guidelines of exposure, 1:1079 toxic effects, 1:1076 experimental animals, 1:1077-1078 human exposures, 1:1076-1077 Chlorine pentafluoride, 1:1075 toxic effects, 1:1079 Chlorine trifluoride, 1:1074 standards, regulations, or guidelines of exposure, 1:1079 toxic effects, 1:1078-1079 Chloroacetal, 3:721 chemical and physical properties, 3:721 Chloroacetaldehyde, 3:695 chemical and physical properties, 3:695 exposure assessment, 3:695-696 guidelines of exposure, 3:696 production and use, 3:695 toxic effects, 3:696 2-Chloroacetaldehyde. See Chloroacetaldehyde α -Chloroacetaldehyde. See Chloroacetaldehyde Chloroacetaldehyde diethyl acetal. See Chloroacetal Chloroacetates, 4:399 chlorodiacetate, 4:399 cyclic chloroacetate, 4:399 ethyl chloroacetate, 4:399 Chloroallyl chloride. See 1,3-Dichloropropene

3-Chloroallyl chloride. See 1,3-Dichloropropene α,γ -Chloroallyl chloride. See 1,3-Dichloropropene α -Chloroallyl chloride. See 1,3-Dichloropropene Chloroallylene. See Allyl chloride 4-Chloro-1-aminobenzene. See 4-Chloroaniline 4-Chloro-1-aminohenzene. See p-Chloroaniline 4-Chloro-2-aminotoluene. See 5-Chloro-o-toluidine 5-Chloro-2-aminotoluene. See 4-Chloro-o-toluidine 2-Chloroaniline, 2:554 chemical and physical properties, 2:555 guidelines of exposure, 2:555 production and use, 2:555 toxic effects, 2:555 3-Chloroaniline, 2:555. See also m-Chloroaniline chemical and physical properties, 2:555 guidelines of exposure, 2:555 production and use, 2:555 toxic effects, 2:555 4-Chloroaniline, 2:556. See also p-Chloroaniline chemical and physical properties, 2:556 guidelines of exposure, 2:556 production and use, 2:556 toxic effects, 2:556 m-Chloroaniline, 2:629 chemical and physical properties, 2:629-630 exposure assessment, 2:630 guidelines of exposure, 2:630 production and use, 2:630 toxic effects, 2:630 o-Chloroaniline, 2:629 chemical and physical properties, 2:629 exposure assessment, 2:629 guidelines of exposures, 2:629 production and use, 2:629 toxic effects. 2:629 p-Chloroaniline, 2:630 chemical and physical properties, 2:630 guidelines of exposure, 2:631 production and use, 2:630 toxic effects, 2:630-631 1-Chloro-2-(\beta-chloroethoxy)ethane. See Dichloroethyl ether 2-Chlorobenzenamine. See 2-Chloroaniline; o-Chloroaniline 3-Chlorobenzenamine. See 3-Chloroaniline; m-Chloroaniline 4-Chlorobenzenamine. See 4-Chloroaniline; p-Chloroaniline 2-Chloro-1-4-benzenediamine. See 2-Chloro-1,4phenylenediamine 4-Chloro-1,2-benzenediamine. See 4-Chloro-1,2phenylenediamine 4-Chloro-1,3-benzenediamine. See 4-Chloro-1,3phenylenediamine Chlorobenzenes, oral LD50 for, 3:324 p-Chlorobenzoyl peroxide. See Di(p-chlorobenzoyl) peroxide 2-Chloro-4,6-bis(ethylamino)-sym-triazine. See Simazine Chlorobromomethane. See Methylene chlorobromide Chlorobutadiene. See β-Chloroprene 2-Chlorobutadiene. See β-Chloroprene 2-Chlorobuta-1,3-diene. See β-Chloroprene 2-Chloro-1,3-butadiene. See β-Chloroprene

β-Chlorobutadiene. See β-Chloroprene Chlorocarbonic acid, methyl ester. See Methyl chloroformate Chloro(chloromethoxy)methane. See Bis(chloromethyl) ether Chloro-1,2-diaminobenzene. See 4-Chloro-1,2-phenylenediamine 1-Chloro-2,4-diaminobenzene. See 4-Chloro-1,3phenylenediamine 1-Chloro-3,4-diaminobenzene. See 4-Chloro-1,2phenylenediamine 4-Chloro-1,2-diaminobenzene. See 4-Chloro-1,2phenylenediamine 4-Chloro-1,3-diaminobenzene. See 4-Chloro-1,3phenylenediamine 1-Chloro-2,3-dibromopropane. See 1,2-Dibromo-3-chloropropane 3-Chloro-1,2-dibromopropane. See 1,2-Dibromo-3-chloropropane 1-Chloro-2,2-dichloroethylene. See Trichloroethylene 2-Chloro-1,1-diethoxyethane. See Chloroacetal 3-Chloro-7-diethoxyphosphinothioyloxy-4-methylcoumarin. See Coumaphos 1-Chloro-1,1-difluorodifluroethane, 3:396 chemical and physical properties, 3:396 environmental impact, studies, 3:398 exposure assessment, 3:396 guidelines of exposure, 3:398 production and use, 3:396 toxic effects experimental studies, 3:396-398 human experience, 3:398 Chlorodifluoroethane. See 1-Chloro-1,1-difluorodifluroethane Chlorodifluoromethane, 3:380 chemical and physical properties, 3:380 environmental impact, studies, 3:383 exposure assessment, 3:381 guidelines of exposure, 3:383 production and use, 3:380-381 toxic effects, 3:381 experimental studies, 3:381-382 human experience, 3:382-383 Chlorodifluoromethane (R-22). See Chlorodifluoromethane Chlorodinitrobenzene. See 1-Chloro-2,4-dinitrobenzene 1-Chloro-2,3-dinitrobenzene, 2:664. See also 3-Chloro-1,2dinitrobenzene 1-Chloro-2,4-dinitrobenzene, 2:530, 2:662 chemical and physical properties, 2:531, 2:663 guidelines of exposure, 2:531, 2:663 production and use, 2:531, 2:663 toxic effects, 2:531, 2:663 1-Chloro-2,5-dinitrobenzene, 2:663-664. See also 2-Chloro-1, 4-dinitrobenzene 1-Chloro-2,6-dinitrobenzene, 2:664. See also 2-Chloro-1,3dinitrobenzene 1-Chloro-3,4-dinitrobenzene, 2:664-665. See also 4-Chloro-1, 2-dinitrobenzene 1-Chloro-3,5-dinitrobenzene, 2:665. See also 1-Chloro-3,5dinitrobenzene: 5-Chloro-1,3-dinitrobenzene 2-Chloro-1,3-dinitrobenzene, 2:529 chemical and physical properties, 2:529 guidelines of exposure, 2:529 production and use, 2:529 toxic effects, 2:529

2-Chloro-1,4-dinitrobenzene, 2:529. See also 1-Chloro-2,5dinitrobenzene chemical and physical properties, 2:529 guidelines of exposure, 2:529 production and use, 2:529 toxic effects, 2:529 3-Chloro-1,2-dinitrobenzene, 2:529 chemical and physical properties, 2:530 guidelines of exposure, 2:530 production and use, 2:530 toxic effects, 2:530 4-Chloro-1,2-dinitrobenzene, 2:530 chemical and physical properties, 2:530 guidelines of exposure, 2:530 production and use, 2:530 toxic effects, 2:530 4-Chloro-1,3-dinitrobenzene. See 1-Chloro-2,4-dinitrobenzene 5-Chloro-1,3-dinitrobenzene, 2:531 chemical and physical properties, 2:531 guidelines of exposure, 2:531 production and use, 2:531 toxic effects, 2:531 1-Chloro-2,3-epoxypropane. See Epichlorohydrin 3-Chloro-1,2-epoxypropane. See Epichlorohydrin (RS)-3-Chloro-1,2-epoxypropane. See Epichlorohydrin Chloroethanal. See Chloroacetaldehyde 2-Chloroethanal. See Chloroacetaldehyde 2-Chloro-1-ethanal. See Chloroacetaldehyde Chloroethane. See Ethyl chloride 2-Chloroethanol, 4:42 chemical and physical properties, 4:43 exposure assessment, 4:43 workplace method, 4:43 production and use, 4:43 standards, regulations, or guidelines of exposure, 4:45 toxic effects, 4:43 acute toxicity, 4:43 carcinogenesis, 4:44 chronic and subchronic toxicity, 4:43, 4:44 clinical cases, 4:44, 4:45 epidemiology studies, 4:45 experimental studies, 4:43 genetic and related cellular effects studies, 4:44 pharmacokinetics, metabolism, and mechanisms, 4:44 reproductive and developmental, 4:44 2-Chloro-1-ethanol. See 2-Chloroethanol Chloroethene. See Methyl chloroform; Vinyl chloride β-Chloroethylamine derivatives, 2:714 Chloroethylamines carcinogenesis, 2:712 environmental impact studies, 2:713 exposure assessment, 2:714 exposure standards, 2:713 genetic and cellular effects, 2:712-713 pharmacokinetics, metabolism, and mechanisms, 2:712 production and use, 2:713-714 reproductive and developmental effects, 2:712 toxic effects, 2:714 Chloroethylene. See Vinyl chloride

Chloroethylene polymer. See Polyvinyl chloride Chlorofluorocarbon 22. See Chlorodifluoromethane Chlorofluorocarbons (CFCs), 3:359, 6:200 degradation of stratospheric ozone, 1:994 greenhouse warming potential (GWP), 3:360t Chloroform, 3:27 chemical and physical properties, 3:27-28 exposure assessment, 3:28-29 guidelines of exposure, 3:33 production and use, 3:28 toxic effects, 3:29-30 experimental studies, 3:30-32 human experience, 3:32-33 Chloroformates, 4:393 Chloroformic acid, isopropyl ester. See Isopropyl chloroformate Chloroformic acid, methyl ester. See Methyl chloroformate Chloroformic acid propyl ester. See Propyl chloroformate 1-Chloro-2-hydroxybenzene. See 2-Chlorophenol 3-Chloro-7-hydroxy-4-methyl-coumarin O,O-diethyl phosphorothioate. See Coumaphos 3-Chloro-7-hydroxy-4-methylcoumarin O-ester with O,O-diethyl phosphorothioate. See Coumaphos 1-Chloro-2-hydroxypropane. See Propylene chlorohydrin 1-Chloroisopropyl alcohol. See Propylene chlorohydrin Chloromethane. See Methyl chloride 2-Chloro-6-methylaniline. See 6-Chloro-o-toluidine 3-Chloro-6-methylaniline. See 5-Chloro-o-toluidine 4-Chloro-2-methylaniline. See 4-Chloro-o-toluidine 4-Chloro-6-methylaniline. See 4-Chloro-o-toluidine 5-Chloro-2-methylaniline. See 5-Chloro-o-toluidine 6-Chloro-2-methylaniline. See 6-Chloro-o-toluidine 5-Chloro-2-methyl-benzamine. See 5-Chloro-o-toluidine 2-Chloro-6-methylbenzenamine. See 6-Chloro-o-toluidine 4-Chloro-2-methylbenzenamine. See 4-Chloro-o-toluidine 4-Chloro-2-methylbenzenamine. See 4-Chloro-o-toluidine 5-Chloro-2-methylbenzenamine. See 5-Chloro-o-toluidine 3-Chloro-4-methyl-7-coumarinyl diethyl phosphorothioate. See Coumaphos Chloromethyl ether. See Bis(chloromethyl) ether (Chloromethyl) ethylene oxide. See Epichlorohydrin 3-Chloro-4-methyl-7-hydroxycoumarin diethyl thiophosphoric acid ester. See Coumaphos Chloromethyl methyl ether, 3:615 chemical and physical properties, 3:615 exposure assessment, 3:615 guidelines of exposure, 3:615 toxic effects, 3:615 Chloromethyloxirane. See Epichlorohydrin (Chloromethyl) oxirane. See Epichlorohydrin (Chloromethyl)oxirane. See Epichlorohydrin 2-(Chloromethyl) oxirane. See Epichlorohydrin 2-(Chloromethyl)oxirane. See Epichlorohydrin Chloromethyloxirane rubber. See Epichlorohydrin O-(3-Chloro-4-methyl-2-oxo-2H-1-benzopyran-7-yl) O,O-diethyl phosphorothioate. See Coumaphos 3-Chloro-4-methylumbelliferone, O-ester with O,O-diethyl phosphorothioate. See Coumaphos 4-Chloro-2-nitroaniline, 2:561, 2:634 chemical and physical properties, 2:562, 2:634

guidelines of exposure, 2:562, 2:635 production and use, 2:562, 2:634 toxic effects, 2:562, 2:634-635 4-Chloro-2-nitrobenzenamine. See 4-Chloro-2-nitroaniline 1-Chloro-2-nitrobenzene, 2:526. See also o-Chloronitrobenzene chemical and physical properties, 2:527 guidelines of exposure, 2:527 production and use, 2:527 toxic effects, 2:527 1-Chloro-3-nitrobenzene, 2:527. See also m-Chloronitrobenzene chemical and physical properties, 2:528 guidelines of exposure, 2:528 production and use, 2:528 toxic effects, 2:528 1,4-Chloronitrobenzene. See 1-Chloro-4-nitrobenzene; p-Chloronitrobenzene 1-Chloro-4-nitrobenzene, 2:528. See also p-Chloronitrobenzene chemical and physical properties, 2:528 guidelines of exposure, 2:529 production and use, 2:528 toxic effects, 2:528 2-Chloronitrobenzene. See 1-Chloro-2-nitrobenzene 2-Chloro-1-nitrobenzene. See 1-Chloro-2-nitrobenzene; o-Chloronitrobenzene 3-Chloro-1-nitrobenzene. See 1-Chloro-3-nitrobenzene 4-Chloronitrobenzene. See p-Chloronitrobenzene 4-Chloro-1-nitrobenzene. See 1-Chloro-4-nitrobenzene; p-Chloronitrobenzene m-Chloronitrobenzene, 2:660. See also 1-Chloro-3-nitrobenzene chemical and physical properties, 2:660 guidelines of exposure, 2:661 production and use, 2:660-661 toxic effects, 2:661 o-Chloronitrobenzene, 2:659. See also 1-Chloro-2-nitrobenzene chemical and physical properties, 2:659 exposure assessment, 2:659 guidelines of exposure, 2:660 production and use, 2:659 toxic effects, 2:660 p-Chloronitrobenzene, 2:661 chemical and physical properties, 2:661 exposure assessment, 2:661 guidelines of exposure, 2:662 production and use, 2:661 toxic effects, 2:662 pharmacokinetics, metabolism, and mechanisms, **2:**662 Chloro-1-nitroethane, 2:366 1-Chloro-1-nitroethane. See Chloro-1-nitroethane Chloronitropropane. See 1-Chloro-1-nitropropane 1-Chloro-1-nitropropane, 2:366. See also 1-Chloro-1-nitropropane inhalation of, 2:369 1-Chloro-2-nitropropane, 2:366 chemical and physical properties, 2:367 exposure assessment, 2:367 guidelines of exposure, 2:367-369 production and use, 2:367 toxic effects, 2:367 2-Chloro-p-PDA. See 2-Chloro-1,4-phenylenediamine

4-Chloro-o-PDA. See 4-Chloro-1,2-phenylenediamine 1-Chloro-1,1,2,2,2-Pentafluoroethane, 3:377 chemical and physical properties, 3:377 environmental impact, studies, 3:378 exposure assessment, 3:377 guidelines of exposure, 3:378 production and use, 3:377 toxic effects, 3:377 experimental studies, 3:377-378 human experience, 3:378 Chloropentafluoroethane 115. See 1-Chloro-1,1,2,2,2-Pentafluoroethane Chlorophen. See Pentachlorophenol Chlorophenate. See 3-Chlorophenol Chlorophenol, 2-. See 2-Chlorophenol 2-Chlorophenol, 2:299 3-Chlorophenol, 2:299-300 4-Chlorophenol, 2:300 o-Chlorophenol. See 2-Chlorophenol Chlorophenolate. See 2-Chlorophenol Chlorophenols acute toxicity of, 2:308 genotoxicity of, 2:309 physicochemical properties of, 2:306 solubilities of, 2:307 uses of, 2:307 3-Chlorophenylamine. See 3-Chloroaniline; m-Chloroaniline p-Chlorophenylamine. See 4-Chloroaniline; p-Chloroaniline 4-Chlorophenyl-1,3-diamine. See 4-Chloro-1,3-phenylenediamine 2-Chloro-1,4-phenylenediamine, 2:566, 2:653 chemical and physical properties, 2:566 guidelines of exposure, 2:567 production and use, 2:566, 2:653 toxic effects, 2:567, 2:653 4-Chlorophenylenediamine. See 4-Chloro-1,3-phenylenediamine 4-Chloro-1,2-phenylenediamine, 2:565, 2:652 chemical and physical properties, 2:566, 2:652 guidelines of exposure, 2:566, 2:652 production and use, 2:566, 2:652 toxic effects, 2:566, 2:652 4-Chloro-1,3-phenylenediamine, 2:566, 2:653 4-Chlorophenylene-1,3-diamine. See 4-Chloro-1,3phenylenediamine 4-Chloro-1,3-phenylenediamine chemical and physical properties, 2:566, 2:653 exposure assessment, 2:653 guidelines of exposure, 2:566, 2:653 production and use, 2:566, 2:653 toxic effects, 2:566, 2:653 4-Chloro-m-phenylenediamine. See 4-Chloro-1,3phenylenediamine 4-Chloro-meta-phenylenediamine. See 4-Chloro-1,3phenylenediamine 4-Chloro-o-phenylenediamine. See 4-Chloro-1,2phenylenediamine p-Chloro-1,2-phenylenediamine. See 4-Chloro-1,2phenylenediamine 2-Chloro-p-phyenylenediamine. See 2-Chloro-1,4phenylenediamine

Chlor-O-Pic. See Trichloronitromethane 2-Chloro-p-phenylenediamine. See 2-Chloro-1,4phenylenediamine Chloroprene. See β -Chloroprene 2-Chloroprene. See β-Chloroprene 3-Chloroprene. See Allyl chloride α -Chloroprene. See β -Chloroprene β-Chloroprene, 3:160 chemical and physical properties, 3:160 environmental impact, studies, 3:166 exposure assessment, 3:160-161 guidelines of exposure, 3:166 production and use, 3:160 toxic effects, 3:161 experimental studies, 3:161-165 human experience, 3:165-166 3-Chloroprochloropropyl epoxide. See Epichlorohydrin 2-Chloropropane. See Isopropyl chloride n-Chloropropane. See Propyl chloride-1 Chloropropene. See Allyl chloride 1-Chloropropene-2. See Allyl chloride 1-Chloro-2-propene. See Allyl chloride 3-Chloropropene. See Allyl chloride 3-Chloropropene-1. See Allyl chloride 3-Chloro-1-propene. See Allyl chloride 3-Chloropropene-1,2-oxide. See Epichlorohydrin Chloropropenyl chloride. See 1,3-Dichloropropene 3-Chloropropenyl chloride. See 1,3-Dichloropropene 3-Chloropropionitrile chemical and physical properties, 2:950t-951t, 2:976 odor and warning properties, 2:977 toxic effects, 2:977 2-Chloropropyl alcohol. See Propylene chlorohydrin 3-Chloropropylene. See Allyl chloride 3-Chloro-1-propylene. See Allyl chloride α -Chloropropylene. See Allyl chloride 3-Chloropropylene oxide. See Epichlorohydrin 3-Chloro-1,2-propylene oxide. See Epichlorohydrin γ-Chloropropylene oxide. See Epichlorohydrin 3-Chloropropyl epoxide. See Epichlorohydrin 3-Chloropropyl n-octyl sulfoxide, 4:1062 Chlorosulfonated polyethylene, 4:900 chemical and physical properties, 4:900 guidelines of exposure, 4:900 production and use, 4:900 toxic effects, 4:900 1-Chloro-1,2,2,2-tetrafluoroethane, 3:388 chemical and physical properties, 3:388 environmental impact, studies, 3:390 exposure assessment, 3:388 guidelines of exposure, 3:390 production and use, 3:388 toxic effects experimental studies, 3:388-389 human experience, 3:389 2-Chloro-1,1,1,2-tetrafluoroethane. See 1-Chloro-1,2,2,2tetrafluoroethane 2-Chloro-1,1,2-tetrafluoroethane. See 1-Chloro-1,2,2,2tetrafluoroethane

Chlorothene. See Methyl chloroform 4-Chloro-o-toluidine, 2:576, 2:638 chemical and physical properties, 2:576, 2:638 exposure assessment, 2:639 guidelines of exposure, 2:576, 2:639 production and use, 2:576, 2:638-639 toxic effects, 2:576, 2:639 5-Chloro-o-toluidine, 2:576, 2:639 chemical and physical properties, 2:577, 2:639 exposure assessment, 2:640 guidelines of exposure, 2:577, 2:640 production and use, 2:577, 2:639-640 toxic effects, 2:577, 2:640 6-Chloro-o-toluidine, 2:577, 2:640 para-Chloro-ortho-toluidine. See 4-Chloro-o-toluidine 1-Chloro-2,2,2-trifluoroethane, 3:391 chemical and physical properties, 3:392 exposure assessment, 3:392 guidelines of exposure, 3:393 production and use, 3:392 toxic effects experimental studies, 3:392-393 1-Chloro-2,2,2-trifluoroethane (133a). See 1-Chloro-2,2,2trifluoroethane 2-Chloro-1,1,1-trifluoroethane. See 1-Chloro-2,2,2trifluoroethane Chlorotrifluoromethane, 3:368 chemical and physical properties, 3:368 environmental impact, studies, 3:369 exposure assess, 3:368 guidelines of exposure, 3:369 production and use, 3:368 toxic effects experimental studies, 3:368 Chlorpyrifos, 1:60, 1:61, 4:1107 chemical and physical properties, 4:1107 exposure assessment, 4:1108-1109 guidelines of exposure, 4:1114 production and use, 4:1107-1108 toxic effects experimental studies, 4:1109-1111 human experience, 4:1112-1114 Chlorpyrifos-ethyl. See Chlorpyrifos Chlorpyriphos-ethyl. See Chlorpyrifos CHO-Kl cells, 2:716 Cholanthrylene. See Benz[*j*]aceanthrylene Cholinergic muscarinic receptors, 1:61 Cholinesterase inhibitors, 1:61 4-Choraniline. See p-Chloroaniline CHOT. See Pentaerythritol tetranitrate "Chrome" pigments, 1:384 Chromite, 1:565, 1:572 Chromium acute toxicity, 1:571 air standards and classification, 1:575t airways, 1:569 carcinogenesis, 1:572-573 chemical and physical properties, 1:565, 1:566t odor and warning properties, 1:565

chronic and subchronic toxicity, 1:568, 1:571 clinical cases, 1:571-573 concentration, 1:567t detoxification, 1:569 exposure assessment in air, 1:567 in background levels, 1:567 in background levels., 1:568 biomonitoring/biomarkers, 1:567-568 in blood, 1:567-568 community methods, 1:567 in urine, 1:568 in water, 1:568 workplace methods, 1:567 gastrointestinal (GI) tract, 1:569 genetic and related cellular effects studies, 1:570, 1:573 neurological, pulmonary, and skin sensitization, 1:570-571, 1:573 pharmacokinetics, metabolism, and mechanisms, 1:568-570, 1:571-572, 1:575 absorption, 1:569 distribution, 1:569-570 excretion, 1:570 production and use, 1:565-567 reproductive and developmental studies, 1:570, 1:572 skin, 1:569 standards, regulations, and guidelines of exposure, 1:575-576 studies on environmental impact, 1:576 toxic effects, 1:568-575 epidemiology studies., 1:573-575 experimental studies, 1:568 human experience, 1:571-573 use, 1:566 Chromium-51, 1:4 Chromosomal aberrations, 1:195, 1:664, 1:738, 1:849, 6:458 assay, 1:452, 1:527, 1:528 exposed to zink, 1:172 Chromosomal abnormalities, 1:7 Chromosomal rearrangements, 6:458 Chronic atrophic rhinitis, 1:552 Chronic beryllium disease, 1:119, 1:123, 1:130, 1:131, 1:135, 1:137, 1:244 Chronic obstructive pulmonary disease (COPD), 1:975, 1:976 Chronic solvent encephalopathy (CSE), 1:59 Chrysene, 5:394 chemical and physical properties, 5:394 exposure assessment, 5:394 guidelines of exposure, 5:395 production and use, 5:394 toxic effects, 5:394-395 Chrysiasis, 1:100 Chrysofluorene. See Benzo[a]fluorene Chrysotherapy, 1:75, 1:95, 1:96, 1:100-104 Chrysotile asbestos, 1:445 C.I. 10305. See Picric acid C.I. 10355. See Diphenylamine C.I. 11160. See o-Aminoazotoluene C.I. 23060. See 3,3'-Dichlorobenzidine C.I. 37010. See 2,5-Dichloroaniline

- C.I. 37020. *See* 2,6-Dichloro-1,4-phenylenediamine C.I. 37025. *See o*-Nitroaniline
- C.I. 37030. See 3-Nitroaniline; *m*-Nitroaniline
- C.I. 37035. *See* 4-Nitroaniline; *p*-Nitroaniline
- C.I. 37040. See 4-Chloro-2-nitroaniline
- C.I. 37077. See o-Toluidine
- C.I. 37090. See 5-Chloro-o-toluidine
- C.I. 37105. See 5-Nitro-o-toluidine
- C.I. 37225. See Benzidine
- C.I. 37230. See 3,3'-Dimethylbenzidine
- C.I. 37240. See 4-Aminodiphenylamine; p-Aminodiphenylamine
- C.I. 37270. See 2-Naphthylamine
- C.I. 76000. See Aniline
- C.I. 76010. See 1,2-Phenylenediamine; o-Phenylenediamine
- C.I. 76015. See 4-Chloro-1,2-phenylenediamine
- C.I. 76020. See 4-Nitro-1,2-phenylenediamine
- C.I. 76025. See 1,3-Phenylenediamine
- C.I. 76027. See 4-Chloro-1,3-phenylenediamine
- C.I. 76035. See 2,4-Toluenediamine
- C.I. 76060. See 1,4-Phenylenediamine; p-Phenylenediamine
- C.I. 76070. See 2-Nitro-1,4-phenylenediamine
- C.I. 76076. See 1,4-Phenylenediamine
- C.I. 76085. See 4-Aminodiphenylamine; p-Aminodiphenylamine
- CI 76505. See Resorcinol
- C.I. 76520. See 2-Aminophenol; o-Aminophenol
- C.I. 76530. See 2-Amino-4-nitrophenol
- C.I. 76535. See 2-Amino-5-nitrophenol
- C.I. 76545. See 3-Aminophenol
- C.I. 76550. See 4-Aminophenol
- C.I. 76555. See 4-Amino-2-nitrophenol
- C.I. Azoic Diazo. See 4-Chloro-2-nitroaniline
- C.I. Azoic Diazo Component 3. See 2,5-Dichloroaniline
- C.I. Azoic Diazo Component 6. See 2-Nitroaniline;
- *o*-Nitroaniline C.I. Azoic Diazo Component 7. *See* 3-Nitroaniline; *m*-Nitroaniline
- C.I. Azoic Diazo Component 9. See 4-Chloro-2-nitroaniline
- C.I. Azoic Diazo Component 12. See 5-Nitro-o-toluidine
- C.I. Azoic Diazo Component 22. See 4-Aminodiphenylamine; *p*-Aminodiphenylamine
- C.I. Azoic Diazo Component 37. See 4-Nitroaniline; p-Nitroaniline
- C.I. Azoic Diazo Component 48. See 3,3'-Dimethoxybenzidine
- C.I. Azoic Diazo Component 112. See Benzidine
- C.I. Azoic Diazo Component 113. See 3,3'-Dimethylbenzidine
- C.I. Azoic Diazo Component 114. See 1-Naphthylamine
- C.I. Azoic Diazo Component No. 9. See 4-Chloro-2-nitroaniline
- C.I. 11160b. See o-Aminoazotoluene
- C.I. Developer 11. See 1,3-Phenylenediamine
- C.I. Developer 12. See 1,4-Phenylenediamine
- C.I. Developer 13. See 1,4-Phenylenediamine
- C.I. Developer 15. *See* 4-Aminodiphenylamine; *p*-Aminodiphenylamine
- C.I. Developer 17. See 4-Nitroaniline; p-Nitroaniline
- Cidex. See Glutaraldehyde
- C.I. Disperse Black 6. See 3,3'-Dimethoxybenzidine
- Ciene. See Limonene
- Cinene. See Limonene
- Cinnamal. See Cinnamaldehyde
- Cinnamaldehyde, 3:711

- chemical and physical properties, 3:711 production and use, 3:711 toxic effects, 3:711 Cinnamate de n-butyl [French]. See n-Butyl cinnamate Cinnamates physical and chemical properties of, 4:153 toxicity of, 4:151, 4:154 Cinnamenol. See Styrene Cinnamic acid chemical and physical properties, 5:142-143 exposure assessment, 5:143 guidelines of exposure, 5:144 human experience, 5:144 physical and chemical properties of, 5:143t production and use, 5:143 toxic effects, 5:143-144 Cinnamic acid, allyl ester. See n-Allyl cinnamate Cinnamic acid, benzyl ester. See Benzyl cinnamate trans-Cinnamic acid benzyl ester. See Benzyl cinnamate Cinnamic acid, butyl ester. See n-Butyl cinnamate Cinnamic acid, 1,5-dimethyl-1-vinyl-4-hexenyl ester. See Linayl Cinnamate Cinnamic acid, 1,5-dimethyl-1-vinyl-4-hexen-1-yl ester. See Linayl Cinnamate Cinnamic acid, ethyl ester. See Ethyl cinnamate Cinnamic acid, linayl ester. See Linayl Cinnamate Cinnamic acid, methyl ester. See Methyl cinnamate Cinnamic acid, propyl ester. See n-Propyl cinnamate Cinnamic aldehyde, 5:144. See Cinnamaldehyde carcinogenesis of, 5:147t chemical and physical properties, 5:145 chronic and subchronic toxicity, 5:146t exposure assessment, 5:145 genetic and related cellular effects for, 5:147t guidelines of exposure, 5:149 human experience, 5:148-149 human experience (dermal data), 5:148t physical and chemical properties, 5:145t production and use, 5:145 reproductive and developmental toxicity, 5:147t toxic effects, 5:145-148 Cinnamyl aldehyde. See Cinnamaldehyde
- Cinnamylic acid. See Cinnamic acid
- C.I. Oxidation Base. See 2,4-Toluenediamine
- C.I. Oxidation Base 1. See Aniline
- C.I. Oxidation Base 2. *See* 4-Aminodiphenylamine; *p*-Aminodiphenylamine
- C.I. Oxidation Base 7. See 3-Aminophenol
- C.I. Oxidation Base 10. See 1,4-Phenylenediamine
- C.I. Oxidation Base 16. *See* 1,2-Phenylenediamine; *o*-Phenylenediamine
- C.I. Oxidation Base 17. See 2-Aminophenol; o-Aminophenol
- C.I. Oxidation Base 20. See 2,4-Toluenediamine
- C.I. Oxidation Base 22. See 2-Nitro-1,4-phenylenediamine
- C.I. Oxidation Base 35. See 2,4-Toluenediamine
- C.I. Oxidation Base 200. See 2,4-Toluenediamine
- C.I. Oxidation Base 6A. See 4-Aminophenol
- Cipoviol W 72. See Polyvinyl alcohol
- Cipoviol w 72. See Polyvinyl alcohol

Circadian rhythms biorhythm, 6:333-334 chronobiology, 6:334 circadian clocks, 6:334 clock-controlled gene, 6:334 clock gene, 6:334 definitions, 6:333 desynchronization, 6:334 diurnal, 6:334 entrainment, 6:334 free-running, 6:334 nychthermal, 6:334 phase advance, 6:334 phase delay, 6:334 phase relation, 6:334 phase response curve (PRC), 6:334 zeitgeber, 6:334 Circadian timing system light, phase-shifting effect, 6:339 cis-Methylbutenedioic acid. See Citraconic acid C.I. Solvent Yellow. See 4-Dimethylaminoazobenzene C.I. Solvent Yellow 3. See o-Aminoazotoluene Cisplatin acute toxicity, 1:730t carcinogenic effects, 1:733t-734t neurotoxic activity, 1:736 teratogenic activity, 1:732 treatment nephrotoxicity, 1:735 Citol. See 4-Aminophenol; p-Aminophenol Citraconic acid, 3:577 chemical and physical properties, 3:577 production and use, 3:577 toxic effects, 3:577 experimental studies, 3:577 Citric acid, 3:519 chemical and physical properties, 3:519 exposure assessment, 3:519 guidelines of exposure, 3:521 production and use, 3:519 toxic effects, 3:519 experimental studies, 3:519-520 human experience, 3:520 Citric acid, acetyl triethyl ester. See Acetyl triethyl citrate Citric acid, tributyl ester, acetate. See Acetyl tributyl citrate Citric acid, triethyl ester. See Triethyl citrate Citronella, 3:694 chemical and physical properties, 3:694 (R)-(+)-Citronellal. See Citronella Citrucel. See Methyl cellulose CL 35,024. See Phorate Clastogenic effects, 1:452 following zinc exposure, 1:172 oxidation state IV induce, 1:533 of sodium selenite (Na₂SeO₃) and sodium selenate (NaSeO₄), 1:861 Claudin 16 (CLDN16), 1:147 Clean Air Act, 2:708 Clean Air Act Amendments of 1990, 1:1000 Cleaning agent, as trisodium phosphate, 1:943

Clean Water Act, 1:801 Clearteck. See White oils Clinical Laboratory Improvement Amendments of 1988, 1:386 Cl-MDA. See 4,4'-Methylenebis(2-chloroaniline) Clostridium difficile, 5:500f 4-Cl-m-PD. See 4-Chloro-1,3-phenylenediamine 4-Cl-o-PD. See 4-Chloro-1,2-phenylenediamine Clydach copper department, 1:669 Clydach refinery, 1:662 CM. See Chlorinated polyethylene CMC. See Carboxymethyl cellulose CmCellulose. See Carboxymethylcellulose Cm cellulose. See Carboxymethyl cellulose CMC sodium salt. See Sodium carboxymethyl cellulose CME. See Chloromethyl methyl ether CMME. See Chloromethyl methyl ether CMW bone cement. See Polymethyl methacrylate CNA. See 2,6-Dichloro-4-nitroaniline 2-CNB. See 1-Chloro-2-nitrobenzene; o-Chloronitrobenzene 3-CNB. See 1-Chloro-3-nitrobenzene m-CNB. See 1-Chloro-3-nitrobenzene; m-Chloronitrobenzene o-CNB. See 1-Chloro-2-nitrobenzene; o-Chloronitrobenzene p-CNB. See p-Chloronitrobenzene CNS effects, 5:593 acute tetrachloroethylene toxicity, 5:117f Coal, 5:301 chemical and physical properties, 5:301-302 environmental impact, studies, 5:316-318 exposure assessment, 5:302-305 guidelines of exposure, 5:316 production and use, 5:302 toxic effects, 5:305 experimental studies, 5:306-312 human experience, 5:312-316 Coal liquid. See Crude oil Coal miner silicotic nodule in lung section, 5:307f Coal naphtha. See Benzene Coal nodule, 5:306f Coal oil. See Crude oil; Kerosene Coal tar chemical and physical properties, 5:326-327 chemical composition, 5:325 exposure assessment, 5:327 guidelines of exposure, 5:327-328 occupations with potential exposure, 5:329t production and use, 5:327 toxic effects, 5:327 types of industrial processes, 5:330t Coal tar, aerosol. See Coal tar Coal-tar distillation, 6:452 Coal-tar oil. See Creosote Coal tar pitch, 5:325, 5:328 chemical and physical properties, 5:328 exposure assessment, 5:328-329 production and use, 5:328 toxic effects, 5:329 epidemiology studies, 5:332

experimental studies, 5:329-331 human experience, 5:331-332 Coal tar pitch volatiles (CTPV). See Coal tar pitch Coal tar products production schematic for, 5:327f Coal tar solution USP. See Coal tar Coarse mode particles ambient fine, comparisons of, 5:83t Cobalt acute toxicity, 1:646, 1:647 carcinogenesis, 1:649-650 chemical and physical properties, 1:643-644, 1:643t chronic and subchronic toxicity, 1:646, 1:647, 1:648-649 clinical cases, 1:647-648 exposure assessment, 1:645 neurological, pulmonary, and skin sensitization, 1:647-648, 1:650 pharmacokinetics, metabolism, and mechanisms, 1:646-647, 1:648 production and use, 1:644-645 toxic effects, 1:646-650 epidemiology studies, 1:648-650 experimental studies, 1:646-647 human experience, 1:647-648 standards, regulations, and guidelines of exposure, 1:650 Cobalt carbonyl, 1:644 chemical and physical properties, 1:643, 643t exposure limit, 1:650 production, 1:645 Cobalt-conjugated human serum albumin (Co-HSA), 1:649 Cobalt hydrocarbonyl chemical and physical properties, 1:643, 1:643t exposure limit, 1:650 uses. 1:645 Cobaltic-cobaltous oxide (Co₃O₄), 1:644 Cobaltic oxide (Co₂O₃), 1:644 Cobalt-induced lipoic acid deficiency, 1:647 Cobaltocene, 1:32 production, 1:32 properties, 1:32 standards, regulations/guidelines of exposure, 1:32 toxic effects, 1:32 uses, 1:32 Cobaltous oxide (CoO), 1:644 Coccidioides immitis photomicrograph of, 5:516f Cochran-Armitage trend test, 6:461 Code of Federal Regulations (CFR), 5:8 Coesite. See Silicon dioxide Cohort studies, 6:453 Coho salmon, LC₅₀ values exposed to tetrachloroplatinic(II) acid, 1:721 Colace. See Dioctvl sodium sulfosuccinate Colamine. See Monoethanolamine Cold adaptation, 6:16 factors affecting adaptation, 6:16 occupational examples, 6:16 types of, 6:16

Coldcide-25 microbiocide. See Glutaraldehyde Cold exposure, 6:11-13 ACGIH threshold limit value, 6:27 air temperature of various cold environments, 6:12t British Standard 7915, 6:27 Check and selection of corrective actions, 6:29-30 DIN-33403-5, 6:27 exposure standards, 6:26-27 GOST, 6:27 occupational hygiene and health care, 6:27 how to manage cold risks at work, 6:28 occupational health care, 6:27-28 UTCI, 6:27 Cold protective clothing, 6:29 Cold-related problems at work, checklist for identifying, 6:30 Cold strain, 6:13-14, 6:21, 6:27 Cold stress, 6:13 Cold work, 6:11 at workplaces, risk assessment in, 6:25-26 CO (COHb) level, 1:959 2,4,6-collidine. See Di- and Trimethylpyridines α -Collidine. See Di- and Tri-methylpyridines Collodion. See Cellulose nitrate Colloidal Bi subcitrate (CBS), 1:497 Colloidal silica. See Amorphous silica Cologel. See Methyl cellulose Cologne spirit. See Ethanol Colonial spirit. See Methanol Colorectal cancer, risk of, 6:360 Columbian spirit. See Methanol Combustion toxicity, 6:399 Comet assays, 1:528, 2:757 Committed effective dose equivalent (CEDE), 1:799 Common upper extremity overuse syndromes, 6:252 carpal tunnel syndrome, 6:254-255 high median nerve entrapment, 6:253 high radial nerve compression, 6:254 medial and lateral epicondylitis, 6:254 radial tunnel syndrome, 6:254 subacromial impingement, 6:253 thoracic outlet syndrome, 6:252 ulnar nerve entrapment, 6:254 Compartment model, 5:73f Compton scattering, 1:2 Computational fluid dynamics (CFD), 5:101 Congenital malformations, 1:12, 1:311, 1:316, 1:572, 1:958 Conjunctivitis, 1:512, 1:530 Contaminant exposures, 5:70f Contraven. See Terbufos Controlled processes, characteristics of, 6:41 gain, 6:42-43 load error, 6:42 normal value for a regulated variable, 6:43 thermoregulatory control, 6:43 time functions. 6:41–42 Control of Substances Hazardous to Health Regulations (COSHH), 5:24 Copal z. See Polystyrene

Copper chemical and physical properties, 1:373, 1:374t exposure assessment, 1:374-375 genotoxicity and cellular effects, 1:376-377 homeostasis, 1:375 production and use, 1:373-374 standards, regulations, or guidelines of exposure, 1:377 toxic effects, 1:375-377 human experience, 1:375-376 Copper-beryllium alloy, processing and distribution, 1:134 Copper deficiency, 1:173 Coronary heart disease (CHD), 6:354 Coronene, 5:395 chemical and physical properties, 5:395 toxic effects, 5:395 Cosden 550. See Polystyrene Cosmoline. See Petrolatum Cotton/textile dusts clinical evaluation, 5:493 lung function, 5:494 pathology, 5:494-495 prevention, 5:495-496 signs and symptoms, 5:493-494 treatment, 5:494 epidemiology, 5:489-493 exposure assessment, 5:489 Cottrell precipitator, 1:384 Coumaphos, 4:1114 chemical and physical properties, 4:1114-1115 exposure assessment, 4:1115 guidelines of exposure, 4:1117 production and use, 4:1115 toxic effects, 4:1115-1117 experimental studies, 4:1115-1116 human experience, 4:1116-1117 Coumarin, 3-chloro-7-hydroxy-4-methyl-, O-ester with O,O-diethylpyrophosphorothioate. See Coumaphos Countermeasures employer/workplace actions, 6:377 shiftworkers and families, coping strategies for, 6:377 bright light and melatonin, 6:378-379 caffeine, 6:378 diet and exercise, 6:379-380 maximizing sleep, 6:377-378 naps, 6:378 CO uptake, predicted and observed, 1:953f Courlene x 3. See Polyethylene Covol. See Polyvinyl alcohol C₆ Oxo alcohols, 3:967 chemical and physical properties, 3:967 guidelines of exposure, 3:967 production and use, 3:967 toxic effects. 3:967 C₈ oxo alcohols. See Isooctyl alcohol C₉ Oxo alcohols. See Isononyl alcohol C₁₀ oxo alcohols. See Isodecyl alcohol C12 oxo alcohols. See Isodecyl alcohol C13 oxo alcohols. See Isotridecyl alcohol

C₁₆ oxo alcohols. See C₁₆ Alcohols Cox regression model, 6:358 C610P. See Di-hexyl-octyl-decyl phthalate CPE. See Chlorinated polyethylene Crag fly repellent. See Polypropylene glycol butyl ethers Cream E45. See Paraffins (waxes) Creatinine clearance, 1:87, 1:174, 1:305, 1:359, 1:397, 1:409, 1:728, 1:735, 1:736 Creosote, 2:283-284. See also Wood creosote Creosote oil. See Creosote Creosotes. See Creosote 2-Cresol. See o-Cresol 3-Cresol. See m-Cresol m-Cresol, 2:276 chemical and physical properties, 2:277 exposure assessment, 2:277 guidelines of exposure, 2:280 production and use, 2:277 toxic effects, 2:277-280 o-Cresol, 2:273 chemical and physical properties, 2:274 exposure assessment, 2:275 guidelines of exposure, 2:276 production and use, 2:275 toxic effects, 2:275-276 p-Cresol chemical and physical properties, 2:280 exposure assessment, 2:281 guidelines of exposure, 2:283 production and use, 2:280-281 toxic effects, 2:281-283 Cresyl 2-(2,3-epoxypropyl) ether. See Cresyl glycidyl ethers Cresyl glycidyl ethers, 4:477 chemical and physical properties, 4:478 exposure assessment, 4:478 guidelines of exposure, 4:479 production and use, 4:478 toxic effects experimental studies, 4:478-479 human experience, 4:479 m-Cresylic acid. See m-Cresol o-Cresylic acid. See o-Cresol Cresylic creosote. See Creosote Cresyl phosphate. See Tri-o-cresyl phosphate o-Cresyl phosphate. See Tri-o-cresyl phosphate Cretinism, 1:52 Crinothene. See Polymethyl methacrylate Cristobalite. See Silicon dioxide Crodacid. See Myristic acid Crolean. See Acrolein Croscarmellose. See Carboxymethyl cellulose Crotonal. See Crotonaldehyde Crotonaldehyde, 3:692 chemical and physical properties, 3:692 exposure assessment, 3:692 guidelines of exposure, 3:693 production and use, 3:692 toxic effects experimental studies, 3:692-693

Crotonamide, 3-hydroxy-N,N-dimethyl-, cis-dimethyl phosphate. See Dicrotophos Crotonates, 4:108, 4:110 physical and chemical properties, 4:109 toxicity data, 4:112 Crotonic acid, 3:541 chemical and physical properties, 3:542 guidelines of exposure, 3:542 production and use, 3:542 toxic effects experimental studies, 3:542 human experience, **3:5**42 Crotonic aldehyde. See Crotonaldehyde Crotylidene acetic acid. See Sorbic acid 6-Crown-2-ether, 3:645 12-Crown-4-ether, 3:645 15-Crown-5-ether, 3:645 18-Crown-6-ether, 3:645 Crown ethers, 3:645 chemical and physical properties of, 3:646t guidelines of exposure, 3:647 production and use, 3:647 toxic effects, 3:647 Crude coal tar. See Coal tar Crude oil, 5:332 chemical and physical properties, 5:332 exposure assessment, 5:335 guidelines of exposure, 5:337 human experience, 5:335-337 production and use, 5:332-335 Crude oil, petroleum. See Crude oil Crude petroleum. See Crude oil Cryofluorane. See 1,2,-Dichloro-1,1,2,2-tetrafluoroethane Cryolite, 1:1052 Cryptocrystalline silica. See Silicon dioxide Crystalline cristobalite. See Silicon dioxide Crystalline silica forms chemical and physical properties, 5:183t Crystalline tridymite. See Silicon dioxide Crystal polystyrene. See Polystyrene Crystol 325. See White oils Crystosol. See White oils CSM. See Chlorosulfonated polyethylene CTFA 00196. See Amyl salicylate CTFA 00287. See Benzyl benzoate CTFA 00288. See Benzyl cinnamate CTFA 00351. See Butyl p-aminobenzoate CTFA 00752. See Glyceryl diacetate CTFA 00773. See Dibutyl sebacate CTFA 00804. See Diethyl sebacate CTFA 00872. See Di(2-ethylhexyl) sebacate CTFA 00873. See Dioctyl sodium sulfosuccinate CTFA 00874. See Di(2-ethylhexyl) succinate CTFA 00948. See Dodecyl gallate CTFA 01011. See Ethyl paraben CTFA 01108. See Glyceryl triundecanoate CTFA 01624. See Methyl paraben CTFA 01630. See Salicylates CTFA 02642. See Propyl paraben

CTFA 02700. See Resorcinol monoacetate CTFA 03234. See Glyceryl triacetate CTFA 03833. See Glyceryl tridecanoate CTFA 05020. See Glyceryl trioctanoate CTFA 05391. See Methyl benzoate CTFA 05393. See Diethyl succinate CTFA 05448. See Phenyl salicylate CTFA 06232. See Ethyl cinnamate CTFA 06234. See Ethyl p-aminobenzoate CTFA06247. See Methyl o-aminobenzoate CTFA 06332. See Dimethyl maleate CTFA 12641. See Propyl gallate Culminal k 42. See Methyl cellulose Cumene. See Isopropylbenzene Cumene hydroperoxide. See Isopropylbenzene hydroperoxide Cumene peroxide. See Dicumyl peroxide Cumol. See Isopropylbenzene Cumyl t-butyl peroxide, 4:570 chemical and physical properties, 4:571 exposure assessment, 4:571 toxic effects, 4:571 α -Cumyl hydroperoxide. See Isopropylbenzene hydroperoxide Cumyl perneoheptanoate. See Cumyl peroxyneoheptanoate Cumyl peroxide. See Dicumyl peroxide Cumyl peroxyneodecanoate, 4:555 chemical and physical properties, 4:556 exposure assessment, 4:556 toxic effects, 4:556 Cumyl peroxyneoheptanoate, 4:559 chemical and physical properties, 4:559 exposure assessment, 4:559 production and use, 4:559 toxic effects, 4:559 Cumylperoxytrimethylsilane, 4:590 Curalin M. See 4,4'-Methylenebis(2-chloroaniline) Curene 442. See 4,4'-Methylenebis(2-chloroaniline) Curithane. See 4,4'-Methylenedianiline Curithane 103. See Methyl acrylate Current Intelligence Bulletin (CIB), 2:975 Cutaneous squamous cell carcinomas, 2:716 Cutting oils (metalworking fluids), 5:354 chemical and physical properties, 5:354 exposure assessment, 5:355 guidelines of exposure, 5:357 production and use, 5:354-355 toxic effects, 5:355-356 Cyanamide chemical and physical properties, 2:950t-951t, 2:954 exposure assessment, 2:954 exposure standards, 2:956 pharmacokinetics, metabolism, and mechanisms, 2:955 production and use. 2:954 toxic effects acute toxicity, 2:955 experimental studies, 2:954-955 human experience, 2:955-956 Cyanaset. See 4,4'-Methylenebis(2-chloroaniline)

Cyanazine, 2:842 chemical and physical properties, 2:843 environmental impact, studies, 2:845 exposure assessment, 2:843 guidelines of exposure, 2:845 production and use, 2:843 toxic effects acute toxicity, 2:843 carcinogenesis, 2:844 cellular effects studies, 2:844-845 chronic and subchronic toxicity, 2:843-844 experimental studies, 2:843 human experience, 2:845 pharmacokinetics, metabolism, and mechanisms, 2:844 reproductive and developmental, 2:844 Cyanides, 2:945-960 carcinogenesis, 2:948 chemical and physical properties, 2:945-946, 2:950-951 clinical cases acute toxicity, 2:947 chronic and subchronic toxicity, 2:947 experimental studies, 2:946 exposure assessment, 2:946 general, 2:945 human experience, 2:946-947 isocyanide, cyanide ion, cyanide anion, carbon nitride ion (See Cyanide) odor and warning properties, 2:946 pharmacokinetics, metabolism, and mechanisms, 2:947-948 production and use, 2:946 reproductive and developmental effect, 2:948 toxic effects, 2:946-948 2-Cyanoacetamide chemical and physical properties, 2:950t-951t, 2:980 toxic effects. 2:980 Cyanoacetic acid chemical and physical properties, 2:950t-951t, 2:979 toxic effects, 2:979 N-Cyanoethyl. See N-(Cyanoethyl)diethylenetriamine N-(Cyanoethyl)diethylenetriamine, 2:489 chemical and physical properties, 2:489 guidelines of exposure, 2:489 production and use, 2:489 toxic effects, 2:489 2-Cyanoethylene oxide (CEO), 2:961 Cyanogen chemical and physical properties, 2:950t-951t, 2:957 exposure assessment, 2:958 exposure standards, 2:958 odor and warning properties, 2:957 production and use, 2:958 toxic effects, 2:958, 2:958t Cyanogen bromide chemical and physical properties, 2:950t-951t, 2:959 concentrations effects, 2:960t exposure assessment, 2:959 exposure standards, 2:959 odor and warning properties, 2:959 production and use, 2:959

toxic effects, 2:959-960, 2:960t Cyanogen chloride chemical and physical properties, 2:950t-951t, 2:958 concentrations effects, 2:959t exposure assessment, 2:958 exposure standards, 2:959 odor and warning properties, 2:958 production and use, 2:958 toxic effects, 2:958-959, 2:959t Cyanol. See Aniline Cyanuric acid, 2:905 chemical and physical properties, 2:906 environmental impact, studies, 2:908 exposure assessment, 2:906 guidelines of exposure, 2:908 production and use, 2:906 toxic effects, 2:906 carcinogenesis, 2:908 cellular effects studies, 2:908 chronic and subchronic toxicity, 2:906 experimental studies, 2:906 human experience, 2:908 pharmacokinetics, metabolism, and mechanisms, 2:906 reproductive and developmental, 2:907 Cyanuric chloride, 2:904 chemical and physical properties, 2:904, 2:950t-951t, 2:984 environmental impact, studies, 2:905 exposure assessment, 2:904 guidelines of exposure, 2:905 odor and warning properties, 2:984 pharmacokinetics, metabolism, and mechanisms, 2:984 production and use, 2:904, 2:984 reproductive and developmental effects, 2:984 toxic effects, 2:904 acute toxicity, 2:984 cellular effects studies, 2:905 chronic and subchronic toxicity, 2:904, 2:984 experimental studies, 2:904, 2:984 human experience, 2:905, 2:984 Cyanurotriamide. See Melamine Cycas circinalis, 1:246 Cyclanes, 2:103 Cyclenes, 2:103 Cyclic ethers, 3:641 acute toxic effects of, 622t-623t Cyclic ethylene carbonate. See Ethylene carbonate Cyclic ethylene ester. See Ethylene carbonate Cyclic methylethylene carbonate. See Propylene carbonate Cyclic propylene carbonate. See Propylene carbonate Cyclic 1,2-propylene carbonate. See Propylene carbonate Cyclil decene. See Limonene Cycloalkanes chemical and physical properties, 2:104 environmental impact, studies, 2:105 exposure assessment, 2:104 guidelines of exposure, 2:105 physical and chemical properties of, 2:104 toxic effects, 2:104-105 Cycloalkenes, 2:103, 2:116

chemical and physical properties, 2:117 guidelines of exposure, 2:118 physical and chemical properties of, 2:116 production and use, 2:117 toxic effects, 2:117 Cyclobutane, 2:105 chemical and physical properties, 2:105 exposure assessment, 2:105 guidelines of exposure, 2:105 production and use, 2:105 toxic effects, 2:105 used as anesthetics, 2:103 Cyclobutane pyrimidine dimers, 6:183 Cyclododecane, 2:115 chemical and physical properties, 2:116 environmental impact, studies, 2:116 exposure assessment, 2:116 production and use, 2:116 toxic effects, 2:116 Cyclododecatriene chemical and physical properties, 2:128 exposure assessment, 2:128 production and use, 2:128 reproductive and developmental, 2:129 toxic effects, 2:128 1,5,9-Cyclododecatriene, 2:128. See also Cyclododecatriene Cyclododeca-1,5,9-triene. See Cyclododecatriene 1,5,9-Cyclododecatriene, (E,E,E)-. See trans, trans, trans-1,5,9-Cyclododecatriene cis, trans, trans-1,5,9-Cyclododecatriene. See 1,5,9-Cyclododecatriene trans, trans, trans-1,5,9-Cyclododecatriene, 2:128 Cycloheptane, 2:114 chemical and physical properties, 2:114 exposure assessment, 2:114-115 production and use, 2:114 toxic effects, 2:115 1,3,5-Cycloheptatriene, 2:127 chemical and physical properties, 2:127 exposure assessment, 2:127 guidelines of exposure, 2:127 production and use, 2:127 toxic effects, 2:127 Cyclohepta-1,3,5-triene. See 1,3,5-Cycloheptatriene Cyclohexadienedione. See Quinone 1,4-Cyclohexadienedione. See Quinone Cyclohexadiene-1,4-dione. See Quinone 2,5-Cyclohexadiene-1,4-dione. See Quinone Cyclohexanamine. See Cyclohexylamine; Dimethylcyclohexylamine Cyclohexane, 2:108 chemical and physical properties, 2:109 environmental impact, studies, 2:111 exposure assessment, 2:109 guidelines of exposure, 2:111 production and use, 2:109 toxic effects, 2:109-111 1,2-Cyclohexanedicarboxylic acid, bis(oxiranylmethyl) ester. See Hexahydrophthalic acid diglycidyl ester

1,2-Cyclohexanedicarboxylic acid, diisononylester. See Diisononyl cyclohexanoate Cyclohexane, methyl-. See Methylcyclohexane Cyclohexanol, 4:29 chemical and physical properties, 4:30 exposure assessment, 4:30 biomonitoring/biomarkers, 4:30 workplace methods, 4:30 odor and warning properties, 4:30 production and use, 4:30 standards, regulations, or guidelines for exposure, 4:31 toxic effects, 4:30 acute toxicity, 4:30 chronic and subchronic toxicity, 4:30 experimental studies, 4:30 genetic and related cellular effects studies, 4:31 human experience, 4:31 pharmacokinetics, metabolism, and mechanisms, 4:30, 4:31 reproductive and developmental, 4:31 1-Cyclohexanol. See Cyclohexanol Cyclohexanol, acetate. See Cyclohexyl acetate Cyclohexanolazetat. See Cyclohexyl acetate Cyclohexanone, 3:842 chemical and physical properties, 3:842 environmental impact, studies, 3:853 exposure assessment, 3:842-844 guidelines of exposure, 3:853 production and use, 3:842 toxic effects, 3:844 experimental studies, 3:844-851 human experience, 3:851-853 Cyclohexanone, 2-methyl. See 2-Methylcyclohexanone Cyclohexanone peroxide, 4:563. See 1-Hydroperoxy-1'hydroxydicyclohexyl peroxide chemical and physical properties, 4:563 exposure assessment, 4:563 toxic effects, 4:563-564 Cyclohexanyl acetate. See Cyclohexyl acetate Cyclohexatriene. See Benzene Cyclohexene. See Limonene environmental impact, studies, 2:119 exposure assessment, 2:118 guidelines of exposure, 2:119 production and use, 2:118 toxic effects, 2:118-119 Cyclohexene, 4-ethenyl-. See 4-Vinylcyclohexene Cyclohexene, 4-vinyl-. See 4-Vinylcyclohexene Cyclohexenylene. See 1-Vinylcyclohex-1-ene Cyclohexenylethylene. See 4-Vinylcyclohexene Cyclohexyl acetate, 4:92 chemical and physical properties, 4:93 exposure assessment, 4:93 production and use, 4:93 standards, regulations, or guidelines of exposure, 4:93 toxic effects, 4:93 acute toxicity, 4:93 experimental studies, 4:93 human experience, 4:93 Cyclohexyl alcohol. See Cyclohexanol

Cyclohexylamine, 2:478 chemical and physical properties, 2:478 exposure assessment, 2:478 guidelines of exposure, 2:480 production and use, 2:478 toxic effects, 2:478-480 N-Cyclohexyl-2-benzothiazolesulfenamide, 4:1067 animal and human studies, 4:1067-1068 chemical and physical properties, 4:1067 N-Cyclohexylcyclohexanamine. See Dicyclohexylamine Cyclohexyl ester of acetic acid. See Cyclohexyl acetate Cyclohexyl ketone. See Cyclohexanone Cyclohexyl mercaptan, 4:1054 animal and human studies, 4:1054-1055 chemical and physical properties, 4:1054 Cyclohexylmethane. See Methylcyclohexane Cyclohexyl peroxide dihydroperoxide. See Di-(1hydroperoxycyclohexyl) peroxide; 1-Hydroperoxy-1'hydroxydicyclohexyl peroxide Cyclonite. See Cyclotrimethylenetrinitramine Cycloocta-1,5-diene, 2:126 chemical and physical properties, 2:126 exposure assessment, 2:126 guidelines of exposure, 2:126 production and use, 2:126 toxic effects, 2:126 1,5-Cyclooctadiene (COD). See Cycloocta-1,5-diene Cyclooctadienes, 2:125 Cyclooctane, 2:115 Cycloolefins, 2:103. See also Cycloalkenes Cycloparaffins, 2:103 Cyclopentadiene. See 1,3-Cyclopentadiene 1,3-Cyclopentadiene, 2:124 chemical and physical properties, 2:125 environmental impact, studies, 2:125 exposure assessment, 2:125 guidelines of exposure, 2:125 production and use, 2:125 toxic effects, 2:125 Cyclopentadienyl manganese tricarbonyl (CMT), 1:611 Cyclopentane, 2:105 chemical and physical properties, 2:106 environmental impact, studies, 2:107 exposure assessment, 2:106 guidelines of exposure, 2:107 production and use, 2:106 toxic effects, 2:106 Cyclopentane, methyl-. See Methylcyclopentane Cyclopenta[cd]pyrene, 5:400 1H-Cyclopentapyrimidine-2,4-(3H,5H)-dione,3-cyclohexyl-6,7dihydro-. See Substituted uracils 5,6-Cyclopenteno-1,2-benzanthracene, 5:396 chemical and physical properties, 5:396 toxic effects. 5:396 Cyclopolyenes, 2:124 Cyclopropane, 2:103 used as anesthetics, 2:103 Cyclotetramethylenetetranitramine. See Octahydro-1,3,5,7tetranitro-1,3,5,7-tetrazocine

Cyclotrimethylenetrinitramine, 2:388 chemical and physical properties, 2:389 exposure assessment, 2:389 guidelines of exposure, 2:390 production and use, 2:389 toxic effects, 2:389-390 Cymene. See o/m/p-Isopropyltoluene para-Cymene. See o/m/p-Isopropyltoluene Cymol. See o/m/p-Isopropyltoluene CYP1A protein synthesis, inhibition, 1:373 Cyprium metal. See Copper Cystathionine-β-synthase (CBS) polymorphisms, 1:486 Cysteine-rich intestinal protein (CRIP), 1:170 Cystic hyperplasia, 1:393 Cytochrome c oxidase, 1:171, 1:192, 1:359, 1:375, 1:957 Cytochrome P450, 1:99, 1:291, 1:302, 1:365, 1:373, 1:623, 1:704, 1:831, 1:950, 1:957, 1:992 Cytochrome P450-dependent mixed-function oxidase system, 2:968 Cytokinesis-block micronucleus test (MNT), 1:436, 1:723, 1:729, 1:741 1,3-D. See 1,3-Dichloropropene D48. See 2,3,7,8-Tetrachlorodibenzo-p-dioxin DAB. See 4-Dimethylaminoazobenzene 2,4-D acid. See 2,4-Dichlorophenoxyacetic acid DACPM. See 4,4'-Methylenebis(2-chloroaniline) DADPE. See 4-Aminophenyl ether; 4,4'-Oxydianiline 4,4-DADPE. See 4-Aminophenyl ether 4,4-Dadpe. See 4,4'-Oxydianiline DADPM. See 4,4'-Methylenedianiline; 4,4'-Methylenedianiline dihydrochloride Dainichi Fast Scarlet G Base. See 5-Nitro-o-toluidine Daito Brown Salt RR. See 2,6-Dichloro-1,4-phenylenediamine Daito Orange Base R. See 3-Nitroaniline; m-Nitroaniline Daito Red Base 3GL. See 4-Chloro-2-nitroaniline Daito Red Base TR. See 4-Chloro-o-toluidine Daito Red Salt 3GL. See 4-Chloro-2-nitroaniline Daiz Red Base TR. See 4-Chloro-o-toluidine DAP. See Diallyl phthalate Daphnia magna, toxic effect of boron, 1:905 DAPM. See 4,4'-Methylenedianiline; 4,4'-Methylenedianiline dihvdrochloride Dar-chem 14. See Stearic acid DBAE. See Dibutylethanolamine DBCP. See 1,2-Dibromo-3-chloropropane DBDPO. See Decabromodiphenyl oxide DBE 6. See Dimethyl adipate DBEP. See Dibutoxyethyl phthalate DBMP. See Di-tert-Butylmethylphenol DBN. See Nitrosodi-n-butylamine DBT. See Dibutyltin DBTC. See Di-n-butyltin dichloride DCA. See Dichloroacetylene 3,4-DCA. See 3,4-Dichloroaniline DCB. See 3,3'-Dichlorobenzidine o-DCB. See Halogenated benzenes p-DCB. See p-Dichlorobenzene 1,1-DCE. See Vinylidene chloride

1,2-DCE. See cis-/ trans-1,2-Dichloroethylene DCEs. See cis-/ trans-1,2-Dichloroethylene DCHA. See Dicyclohexylamine DCNA. See 2,6-Dichloro-4-nitroaniline 1,3-DCP. See 1,3-Dichloropropene 2,6-DCP. See 2,6-Dichlorophenol 3,4-DCP. See 3,4-Dichlorophenol 3,5-DCP. See 3,5-Dichlorophenol DCP-AES. See Direct current plasma-atomic emission spectrometry DCS, symptom of, 6:310 DDM. See 4,4'-Methylenedianiline DEA. See Diethanolamine; Diethylamine; N,N-Diethylaniline Deactivator e. See Diethylene glycol Deactivator h. See Diethylene glycol DEAE. See Diethylethanolamine Deafness, severe CO intoxication, 1:958 Deanol. See Dimethylethanolamine Deazo Fast Red TRA. See 4-Chloro-o-toluidine Debroxide. See Dibenzoyl peroxide Decaborane, 1:922 chemical and physical properties, 1:922 exposure assessment, 1:922 production and use, 1:922 standards, regulations, or guidelines of exposure, 1:922-923 toxic effects, 1:922 experimental studies, 1:922 human experience, 1:922 Decabromodiphenol ether. See Decabromodiphenyl oxide Decabromodiphenyl ether. See Decabromodiphenyl oxide Decabromodiphenyl oxide, 3:640 chemical and physical properties, 3:641 guidelines of exposure, 3:641 production and use, 3:641 toxic effects. 3:641 Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta(c, d) pentaen-2-one. See Kepone Decahydronaphthalene. See Decalin cis-Decahydronaphthalene. See cis-Decalin trans-Decahydronaphthalene. See trans-Decalin Decahydronaphthalene-trans. See trans-Decalin Decalin, 2:129 chemical and physical properties, 2:130 environmental impact, studies, 2:132 exposure assessment, 2:130 guidelines of exposure, 2:132 production and use, 2:130 toxic effects. 2:130-132 cis-Decalin, 2:129 trans-Decalin, 2:129 Decamethylenediamine, 2:487 chemical and physical properties, 2:487 guidelines of exposure, 2:487 production and use. 2:487 toxic effects, 2:487 Decane. See n-Decane *n*-Decane, **2:**40 chemical and physical properties, 2:40 exposure assessment, 2:40

guidelines of exposure, 2:42 production and use, 2:40 toxic effects, 2:41 1-Decanecarboxylic acid. See Undecylic acid Decanediamine. See Decamethylenediamine 1,10-Decanediamine. See Decamethylenediamine Decanedicarboxylic acid. See Sebacic acid Decanedioic acid. See Sebacic acid Decanedioic acid, bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) sebacate Decanedioic acid dibutyl ester. See Dibutyl sebacate Decanedioic acid, diethyl ester. See Diethyl sebacate Decanedioic acid, di(2-ethylhexyl) ester. See Di(2-ethylhexyl) sebacate Decanedioic acid, diisooctyl ester. See Diisooctyl sebacate Decanedioic acid, dioctyl ester. See n-Dioctyl sebacate Decanoic acid. See Capric acid tert-Decanoic acid oxiranylmethyl ester. See Neodecanoic acid, glycidyl ester Decanoic acid, 1,2,3-propanetriyl ester. See Glyceryl tridecanoate Decanoin, tri-; decanoic acid 1,2,3-propanetriyl ester. See Glyceryl tridecanoate Decanol. See 1-Decanol 1-Decanol, 4:16 chemical and physical properties, 4:17 odor and warning properties, 4:17 production and use, 4:17 toxic effects. 4:17 carcinogenesis, 4:17 experimental studies, 4:17 human experience, 4:17 reproductive and developmental, 4:17 Decan-1-ol. See 1-Decanol Decanoyl peroxide. See Didecanoyl peroxide Decemthion. See Phosmet Decoic acid. See Capric acid Decompression illness (DCI), 6:313 Decyl alcohol. See 1-Decanol Decyl hydride. See n-Decane Decylic acid. See Capric acid n-Decyl mercaptan, 4:1051 animal and human studies, 4:1051 DEF. See Tribufos DEF6. See Tribufos DEG. See Diethylene glycol DEGDA. See Diethylene glycol diacrylate DEHA. See Di(2-ethylhexyl) adipate DEHP. See Di(2-ethylhexyl) phthalate Dehpa extractant. See Di(2-ethylhexyl) phosphate DEHT. See Di(2-ethylhexyl) terephthalate DeKalin. See Decalin Dekrysil. See 4,6-Dinitro-o-cresol Delayed neutron counting (DNC), 1:773 Delayed pulmonary edema, 2:720 Delayed type hypersensitivity (DTH), 1:394 Delpet 50M. See Polymethyl methacrylate cis, cis-Delta-9,12-octadecadienoate. See Linoleic acid cis-Delta-9-octadecanoate. See Oleic acid cis-Delta-9,12,15-octadecatrienoate. See Linolenic acid

cis-Delta-9,12,15-octadecatrienoic acid. See Linolenic acid Delta(1)-pyrroline. See 1-Pyrroline cis-Delta(sup 9)-octadecanoic acid. See Oleic acid Deltrate-20. See Pentaerythritol tetranitrate Demethicone. See Polydimethyl silicones Demeton-O-methyl sulfoxide. See Oxydemeton methyl Demeton-S-methyl sulfoxide. See Oxydemeton methyl Demeton-S-methylsulfoxyd. See Oxydemeton methyl DEN. See N-Nitrosodiethylamine Denatured alcohol. See Ethanol Denitrification in soil, by microorganisms, 1:978 Denka qp3. See Polystyrene Deodorized base oil. See Kerosene Deodorized kerosene. See Kerosene 2'-Deoxyguanosine (dG) hydroxylation, 1:528 Department of Environmental Quality (DEQ), 5:39 Department of Health, 2:758 Department of Health and Human Services (DHHS), 5:3 Department of Toxic Substances Control (DTSC), 5:37, 5:38 Depleted uranium (DU), 1:775 Deponit. See Nitroglycerin Deposition models, exposure assessment for lead, 1:398 DE 83R. See Decabromodiphenyl oxide Derived air concentration (DAC), 1:799 Dermafilm. See Polydimethyl silicones Derma-oil. See Paraffins (waxes) Desanden. See Dibenzoyl peroxide Design for the Environment (DfE), 5:37 DETA. See Diethylenetriamine Detal. See 4,6-Dinitro-o-cresol Detoxification, of hydrogen sulfide, 1:869 Detoxification program, 2:955 Deval Red K. See 4-Chloro-o-toluidine Deval Red TR. See 4-Chloro-o-toluidine Developer 11. See 1,3-Phenylenediamine; m-Phenylenediamine Developer 13. See 1,4-Phenylenediamine Developer 14. See 2,4-Toluenediamine Developer C. See 1,3-Phenylenediamine; m-Phenylenediamine Developer H. See 1,3-Phenylenediamine Developer M. See 1,3-Phenylenediamine Developer P. See 4-Nitroaniline; p-Nitroaniline Developer PF. See 1,4-Phenylenediamine Developmental neurotoxicity, 1:51-52 Developmental neurotoxicity testing (DNT), 1:55 Devol Orange B. See 2-Nitroaniline; o-Nitroaniline Devol Orange R. See 3-Nitroaniline; m-Nitroaniline Devol Red F. See 4-Chloro-2-nitroaniline Devol Red GG. See 4-Nitroaniline; p-Nitroaniline Devol Scarlet B. See 5-Nitro-o-toluidine Devol Scarlet G Salt. See 5-Nitro-o-toluidine Devoton. See Methyl acetate DFA. See Diphenylamine DGBE. See Diethylene glycol mono-n-butyl ether DGBEA. See Diethylene glycol mono-n-butyl ether acetate DGdiME. See Diethylene glycol dimethyl ether DGE. See Diglycidyl ether DGEEA. See Diethylene glycol monoethyl ether acetate DGHE. See Diethylene glycol mono-n-hexyl ether DGIBE. See Diethylene glycol monoisobutyl ether

DGME. See Diethylene glycol monomethyl ether DGMEA. See Diethylene glycol monomethyl ether acetate DGPE. See Diethylene glycol mono-n-propyl ether DHA. See Docosahexaenoic acid DHP. See n-Diheptyl phthalate Diabase Scarlet G. See 5-Nitro-o-toluidine Diabetes mellitus (DM) type II, 6:353 Diacelliton Fast Grey G. See 3,3'-Dimethoxybenzidine Diacel Navy DC. See 3,3'-Dimethoxybenzidine Diacetic ether. See Ethyl acetoacetate Diacetin. See Glyceryl diacetate Diacetone. See 4-Hydroxy-4-methyl-2-pentanone Diacetone alcohol. See 4-Hydroxy-4-methyl-2-pentanone Diacetone alcohol peroxide, 4:562 chemical and physical properties, 4:562 exposure assessment, 4:563 production and use, 4:562 toxic effects, 4:563 Diacetonyl. See 2,5-Hexanedione 1,3-Diacetoxybenzene. See Resorcinol diacetate 1,2-Diacetoxyethane. See Ethylene glycol diacetate 1,1-Diacetoxyethane. See Thylidene diacetate Diacetyl, 3:790 chemical and physical properties, 3:790-791, 5:149, 5:149t environmental impact, studies, 3:795 exposure assessment, 3:791, 5:149-150 guidelines of exposure, 3:795, 5:153 human experience, 5:152 production and use, 5:149 toxic effects, 5:150-152 experimental studies, 3:791-793 human experience, 3:793-795 use and industrial exposures, 3:791 1,2-Diacetylethane. See 2,5-Hexanedione α,β -Diacetyl ethane. See 2,5-Hexanedione Diacetylglycerol. See Glyceryl diacetate Diacetyl methane. See 2,4-Pentanedione Diacetyl peroxide, 4:545 chemical and physical properties, 4:545 exposure assessment, 4:545 1,2-Diacrylyloxy ethane. See Ethylene glycol diacrylate 2,4-Diadiamino-1-toluene. See 2,4-Toluenediamine Diakon. See Polymethyl methacrylate Dialkylcyclohexanes, 2:113 exposure assessment, 2:114 production and use, 2:114 toxic effects, 2:114 Dialkyl peroxides, 4:565 toxic properties, 4:567 Diallylamine, 2:477 chemical and physical properties, 2:477 guidelines of exposure, 2:477 production and use, 2:477 toxic effects. 2:477 Diallyl ether dioxide. See Diglycidyl ether Diallyl phthalate, 4:299 chemical and physical properties, 4:300 production and use, 4:300 studies on environmental impact, 4:301

CUMULATIVE SUBJECT INDEX, VOLUMES 1–6 557

toxic effects, 4:300 acute toxicity, 4:300 carcinogenesis, 4:301 chronic and subchronic toxicity, 4:300 experimental studies, 4:300 genetic and related cellular effects studies, 4:301 neurological, pulmonary, skin sensitization, 4:301 pharmacokinetics, metabolism, and mechanisms, 4:300, 4:301 Dialux. See Styrene-acrylonitrile (SAN) Dialysis encephalopathy (DE), 1:242, 1:245, 1:246 Diamine. See Hexamethylenediamine; Hydrazine DI (2-hydroxy-n-propyl) amine. See Diisopropanolamine Diamines, 2:434 1,2-Diaminobenzene. See 1,2-Phenylenediamine; o-Phenylenediamine 1,3-Diaminobenzene. See 1,3-Phenylenediamine 1,4-Diaminobenzene. See 1,4-Phenylenediamine m-Diaminobenzene. See 1,3-Phenylenediamine; *m*-Phenylenediamine o-Diaminobenzene. See 1,2-Phenylenediamine; o-Phenylenediamine p-Diaminobenzene. See 1,4-Phenylenediamine; *p*-Phenylenediamine 4,4'-Diaminobiphenyl. See Benzidine 4,4'-Diamino-1,1'-biphenyl. See Benzidine 4,4'-Diamino-3,3'-biphenyldiol dimethyl ether. See 3,3'-Dimethoxybenzidine 1,4-Diaminobutane. See Tetramethylenediamine 1,2-Diamino-4-chlorobenzene. See 4-Chloro-1,2phenylenediamine 3,4-Diaminochlorobenzene. See 4-Chloro-1,2-phenylenediamine 3,4-Diamino-1-chlorobenzene. See 4-Chloro-1,2phenylenediamine Di(4-amino-3-chlorophenyl)methane. See 4,4'-Methylenebis(2chloroaniline) 1,8-Diamino-3,6-diazaoctane. See Triethylenetetramine 1,4-Diamino-2,6-dichlorobenzene. See 2,6-Dichloro-1,4phenylenediamine 2,5-Diamino-1,3-dichlorobenzene. See 2,6-Dichloro-1,4phenylenediamine 4,4'-Diamino-3,3'-dichlorobiphenyl. See 3,3'-Dichlorobenzidine 4,4'-Diamino-3,3'-dichlorodiphenylmethane. See 4,4'-Methylenebis(2-chloroaniline) 2,2'-Diaminodiethylamine. See Diethylenetriamine 4,4'-Diamino-3,3'-dimethoxybiphenyl. See 3,3'-Dimethoxybenzidine 4,4'-Diamino-3,3'-dimethylbiphenyl. See 3,3'-Dimethylbenzidine 4,4'-Diaminodiphenyl. See Benzidine p-Diaminodiphenyl. See Benzidine 4,4'-Diaminodiphenyl ether. See 4-Aminophenyl ether Diaminodiphenylmethane. See 4,4'-Methylenedianiline 4,4'-Diaminodiphenylmethane. See 4,4'-Methylenedianiline; 4,4'-Methylenedianiline dihydrochloride 4,4'-Diaminodiphenyloxide. See 4,4'-Oxydianiline 4,-4'-Diaminodiphenyloxide. See 4-Aminophenyl ether 4,4'-Diaminoditan. See 4,4'-Methylenedianiline Diaminoditolyl. See 3,3'-Dimethylbenzidine Diaminoethane. See Ethylenediamine 1,2-Diaminoethane. See Ethylenediamine

1,6-Diaminohexane. See Hexamethylenediamine 1,6-Diamino-n-hexane. See Hexamethylenediamine 1,3-Diamino-2-methylbenzene. See 2,6-Toluenediamine 1,3-Diamino-4-methylbenzene. See 2,4-Toluenediamine 2,4-Diamino-1-methylbenzene. See 2,4-Toluenediamine 2,6-Diamino-1-methylbenzene. See 2,6-Toluenediamine 1,5-Diaminonaphthalene, 2:592. See also 1,5-Naphthalenediamine chemical and physical properties, 2:592 guidelines of exposure, 2:593 production and use, 2:593 toxic effects, 2:593 1,2-Diamino-4-nitrobenzene. See 4-Nitro-1,2-phenylenediamine 1,4-Diamino-2-nitrobenzene. See 2-Nitro-1,4-phenylenediamine 3,4-Diaminonitrobenzene. See 4-Nitro-1,2-phenylenediamine 1,5-Diaminopentane. See Pentamethylenediamine Diaminophenoxypentane (DAPP), 6:180 4,4'-Diaminophenyl ether. See 4-Aminophenyl ether; 4,4'-Oxydianiline 4,4'-Diaminophenyl oxide. See 4-Aminophenyl ether; 4,4'-Oxydianiline Diaminopropane. See 1,2-Propanediamine 1,2-Diaminopropane. See 1,2-Propanediamine 1,3-Diaminopropane. See 1,3-Propanediamine Diaminotoluene. See 3,4-Toluenediamine 2,3-Diaminotoluene. See 2,3-Toluenediamine 2,4-Diaminotoluene. See 2,4-Toluenediamine 2,4-Diamino-1-toluene. See 2,4-Toluenediamine 2.5-Diaminotoluene. See 2.5-Toluenediamine 2,6-Diaminotoluene. See 2,6-Toluenediamine 3,4-Diaminotoluene. See 3,4-Toluenediamine 3,5-Diaminotoluene. See 3,5-Toluenediamine 2,4-Diaminotoluol. See 2,4-Toluenediamine cis-Diamminedichloroplatinum(II), 1:729 carcinogenesis, 1:732, 1:738 chemical and physical properties, 1:730 chronic and subchronic toxicity, 1:730-731, 1:737 exposure assessment in air, 1:730 genetic and related cellular effect studies, 1:732, 1:738 neurological, pulmonary, and skin sensitization nephrotoxicity, 1:732-735 neurotoxicity, 1:735 ototoxicity, 1:735-736 pharmacokinetics, metabolism, and mechanisms, 1:731, 1:737 production and use, 1:730 reproductive and developmental effects, 1:731-732, 1:737-738 standards, regulations, or guidelines of exposure, 1:739 studies on environmental impact, 1:739 toxic effects, 1:730-739 epidemiology studies, 1:739 experimental studies, 1:730-736 human experience, 1:736-739 toxicity, acute, 1:730, 1:737 cis-Diammine (1,1-Cyclobutanedicarboxylato) platinum(II) carcinogenesis, 1:726, 1:729 chemical and physical properties, 1:725 chronic and subchronic toxicity, 1:725-726 exposure assessment, 1:725 genetic and related cellular effect studies, 1:727, 1:729

cis-Diammine (1,1-Cyclobutanedicarboxylato) (Continued) neurological, pulmonary, and skin sensitization, 1:727-728 hematologic effects, 1:728 nephrotoxicity, 1:727 neurotoxicity, 1:727-728 ototoxicity, 1:728 pharmacokinetics, metabolism, and mechanisms, 1:726, 1:728-729 production and use, 1:725 reproductive and developmental effects, 1:726, 1:729 standards, regulations, or guidelines of exposure, 1:729 studies on environmental impact, 1:729 toxic effects, 1:725-729 epidemiology studies, 1:729 experimental studies, 1:725-728 human experience, 1:728-729 toxicity, acute, 1:725 Diammonium sulfide. See Ammonium sulfide Di-n-amylamine, 2:467 chemical and physical properties, 2:467 exposure assessment, 2:467 guidelines of exposure, 2:467 production and use, 2:467 toxic effects, 2:467 Diamyl maleate. See Dipentyl maleate Di- and trimethylpyridines, 2:800 chemical and physical properties, 2:800 exposure assessment, 2:801 human experience, 2:801 odor and warning properties, 2:800, 2:801 production and use, 2:801 standards, regulations, or guidelines of exposure, 2:801 studies on environmental impact, 2:801, 2:802 toxic effects chronic and subchronic toxicity, 2:801 experimental studies, 2:801 genetic and related cellular effects studies, 2:801 pharmacokinetics, metabolism, and mechanisms, 2:801 o-Dianilidine. See 3,3'-Dimethoxybenzidine Dianilinomethane. See 4,4'-Methylenedianiline Dianisidine. See 3,3'-Dimethoxybenzidine; 3,3'-Dimethoxylbenzidine 3,3'-Dianisidine. See 3,3'-Dimethoxybenzidine o,o'-Dianisidine. See 3,3'-Dimethoxybenzidine Diarex 43g. See Polystyrene Diato Blue Base B. See 3,3'-Dimethoxybenzidine Diatomaceous earth. See Amorphous silica Diatomite. See Amorphous silica 3,6-Diazaoctane-1,8-diamine. See Triethylenetetramine Diazepam, 6:314 Diazinon, 4:1117 chemical and physical properties, 4:1117-1118 exposure assessment, 4:1118-1119 guidelines of exposure, 4:1123 production and use, 4:1118 toxic effects experimental studies, 4:1119-1122 human experience, 4:1122-1123 Diazo Fast Blue B. See 3,3'-Dimethoxybenzidine

Diazo Fast Orange GR. See 2-Nitroaniline; o-Nitroaniline Diazo Fast Orange R. See 3-Nitroaniline; m-Nitroaniline Diazo Fast Red GG. See 4-Nitroaniline; p-Nitroaniline Diazo Fast Red 3GL. See 4-Chloro-2-nitroaniline Diazo Fast Scarlet G. See 5-Nitro-o-toluidine Diazomethane, 2:860 chemical and physical properties, 2:860 exposure assessment, 2:861 guidelines of exposure, 2:861 production and use, 2:860-861 toxic effects, 2:861 DIBA. See Diisobutylamine 1,2:5,6-Dibenzacridine. See Dibenzacridines Dibenzacridines, 5:423 chemical and physical properties, 5:423 exposure assessment, 5:423 guidelines of exposure, 5:424 production and use, 5:423 toxic effects, 5:423-424 1,2:3,4-Dibenzanthracene. See Dibenz[a,c]anthracene 1,2,5,6-Dibenzanthracene. See Dibenz[a,h]anthracene 1,2:7,8-Dibenzanthracene. See Dibenz[a, j]anthracene 3,4:5,6-Dibenzanthracene. See Dibenz[a, j]anthracene Dibenz[a, j]anthracene, 5:404 chemical and physical properties, 5:404 exposure assessment, 5:404 guidelines of exposure, 5:404 production and use, 5:404 Dibenz[a,c]anthracene, 5:402 chemical and physical properties, 5:402 exposure assessment, 5:402-403 guidelines of exposure, 5:403 production and use, 5:402 Dibenz[a,h]anthracene, 5:403 chemical and physical properties, 5:403 exposure assessment, 5:403 guidelines of exposure, 5:404 production and use, 5:403 Dibenz[de,kl]anthracene. See Perylene 1,2,3,4-Dibenznaphthalene. See Triphenylene 1,2,5,6-Dibenzoacridine. See Dibenzacridines Dibenzo(a,j)acridine. See Dibenzacridines 1,2:3,4-Dibenzoanthracene. See Dibenz[a,c]anthracene Dibenzo-1,2,7,8-anthracene. See Dibenz[a, j]anthracene Dibenzo [a,c]anthracene. See Dibenz[a,c]anthracene 1,2:5,6-Dibenzocarbazole. See Dibenzocarbazoles 1,2:7,8-Dibenzocarbazole. See Dibenzocarbazoles 3,4:5,6-Dibenzocarbazole. See Dibenzocarbazoles Dibenzocarbazoles, 5:420 chemical and physical properties, 5:420 exposure assessment, 5:420-421 guidelines of exposure, 5:421 production and use, 5:420 Dibenzo[def,p]chrysene. See Dibenzo[a,l]pyrene Dibenzo-p-dioxins, 3:232t epidemiological data, 3:238t epidemiological studies, 3:239t paper, summary, 3:236t U.S. and foreign regulations, 3:240t-241t

Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-. See 2,3,7,8-Tetrachlorodibenzo-p-dioxin Dibenzo-p-dioxin, 2,3,7,8-tetrachloro-. See 2,3,7,8-Tetrachlorodibenzo-p-dioxin 2,3,5,6-Dibenzofluoranthene. See Dibenzo[a,e]fluoranthene Dibenzo[a,e]fluoranthene, 5:404 chemical and physical properties, 5:404 exposure assessment, 5:405 guidelines of exposure, 5:405 production and use, 5:404 1,2,5,6-Dibenzofluorene. See 13H-Dibenzo[a,g]fluorene Dibenzo[c,lm]fluorene. See Benzo[a]fluoranthene; Benzo[ghi] fluoranthene; Benzo[k]fluoranthene Dibenzo[a,g]fluorine. See 13H-Dibenzo[a,g]fluorene Dibenzo[*a*,*jk*]fluorine. *See* Benzo[*j*]fluoranthene 1,2,5,6-Dibenzonaphthalene. See Chrysene Dibenzo[h, rst]pentaphene, 5:405 chemical and physical properties, 5:406 exposure assessment, 5:406 guidelines of exposure, 5:406 production and use, 5:406 Dibenzo[ghi,pqr]perylene. See Coronene 1,2:6,7-Dibenzophenanthrene. See Benzo[b]chrysene 1,2;7,8-Dibenzophenanthrene. See Picene 2,3:7,8-Dibenzophenanthrene. See Benzo[b]chrysene Dibenzo[a,i]phenanthrene. See Picene 1,2:4,5-Dibenzopyrene. See Dibenzo[a, e]pyrene 1,2:9,10-Dibenzopyrene. See Benzopyrenes; Dibenzo[a,l]pyrene 3,4:8,9-Dibenzopyrene. *See* Dibenzo[*a*,*h*]pyrene 4,5,9,10-Dibenzopyrene. See Dibenzo[e,l]pyrene Dibenzo[a, e]pyrene, 5:406 chemical and physical properties, 5:406 exposure assessment, 5:406 guidelines of exposure, 5:407 production and use, 5:406 toxic effects, 5:406-407 Dibenzo[a,h]pyrene, 5:407 chemical and physical properties, 5:407 exposure assessment, 5:407 guidelines of exposure, 5:408 production and use, 5:407 toxic effects, 5:407-408 Dibenzo[a,i]pyrene, 5:408 chemical and physical properties, 5:408 exposure assessment, 5:408 guidelines of exposure, 5:408-409 production and use, 5:408 toxic effects, 5:408 Dibenzo[a,l]pyrene, 5:409 chemical and physical properties, 5:409 exposure assessment, 5:409 guidelines of exposure, 5:410 production and use, 5:409 toxic effects, 5:409-410 Dibenzo[b,h]pyrene. See Dibenzo[a,i]pyrene Dibenzo[cd,jk]pyrene. See Anthanthrene Dibenzo[e,l]pyrene, 5:410 chemical and physical properties, 5:410 exposure assessment, 5:410

guidelines of exposure, 5:410 production and use, 5:410 toxic effects, 5:410 2,3,5,6-Dibenzopyridine. See Acridine; Benz[a] acridine Dibenzo[b,c]pyridine. See Acridine; Benz[a] acridine Dibenzo[*b*,*e*]pyridine. *See* Acridine 9-Dibenzopyrrole. See Carbazole Dibenzo[*b*,*d*]pyrrole. *See* Carbazole Dibenzotetracene. See Dibenzo[e,l]pyrene Dibenzo[de,qr]tetracene. See Naphtho[2,3-e]pyrene 1,3-Dibenzoyloxybenzene. See Resorcinol dibenzoate Dibenzoyl peroxide, 4:538 chemical and physical properties, 4:539 exposure assessment, 4:539 guidelines of exposure, 4:541 production and use, 4:539 toxic effects experimental studies, 4:539-541 human experience, 4:541 1,2:7,8-Dibenzpyrene. See Dibenzo[a,i]pyrene Dibenzyl disulfide, 4:1061 Di-beta-hydroxyethoxyethane. See Triethylene glycol DIBHP. See Isopropyl cumyl hydroperoxide DiBK. See Diisobutyl ketone Diborane, 1:919 chemical and physical properties, 1:920 exposure assessment, 1:920 production and use, 1:920 standards, regulations, or guidelines of exposure, 1:920 toxic effects, 1:920 experimental studies, 1:920 human studies, 1:920 DiBP. See Diisobutyl phthalate Dibrom. See Naled Dibromfos. See Naled Dibromochloropropane. See 1,2-Dibromo-3-chloropropane 1,2-Dibromo-3-chloropropane, 3:115 chemical and physical properties, 3:115 environmental impact, studies, 3:119 exposure assessment, 3:115-116 guidelines of exposure, 3:119 production and use, 3:115 toxic effects experimental studies, 3:116-118 human experience, 3:118-119 1,3-Dibromo-3-chloropropane. See 1,2-Dibromo-3-chloropropane Dibromo-3-chloropropane, 1,2- (DBCP). See 1,2-Dibromo-3chloropropane 1,2-Dibromo-2,2-dichloroethyl dimethyl phosphate. See Naled Dibromoethane. See Ethylene dibromide 1,2-Dibromoethane. See Ethylene dibromide sym-Dibromoethane. See Ethylene dibromide Dibromomethane. See Methylene bromide Di-sec-Butanolamine, 2:498 guidelines of exposure, 2:498 production and use, 2:498 toxic effects, 2:498 1,1-Dibutoxyethane. See Acetaldehyde butyl acetal

1,1-Di-n-butoxyethane. See Acetaldehyde butyl acetal

Dibutoxyethyl adipate, 4:235 chemical and physical properties, 4:235 production and use, 4:235 toxic effects, 4:236 Di(2-butoxyethyl) adipate. See Dibutoxyethyl adipate Di-(2-butoxyethyl) peroxydicarbonate, 4:538 chemical and physical properties, 4:538 exposure assessment, 4:538 toxic effects, 4:538 Dibutoxyethyl phthalate chemical and physical properties, 4:310 odor and warning properties, 4:310 production and use, 4:310 studies on environmental impact, 4:311 toxic effects, 4:311 acute toxicity, 4:311 genetic and related cellular effects studies, 4:311 neurological, pulmonary, skin sensitization, 4:311 reproductive and developmental, 4:311 Di(2-butoxyethyl) phthalate. See Dibutoxyethyl phthalate Dibutyl acetal. See Acetaldehyde butyl acetal Di-n-butyl acetal. See Acetaldehyde butyl acetal n-Dibutyl adipate, 4:227 chemical and physical properties, 4:227 exposure assessment, 4:227, 4:228 production and use, 4:227 toxic effects, 4:228 acute toxicity, 4:228 chronic and subchronic toxicity, 4:228 experimental studies, 4:228 genetic and related cellular effects studies, 4:228 human experience, 4:228, 4:229 neurological, pulmonary, skin sensitization, 4:228 reproductive and developmental, 4:228 Dibutyladipinate. See n-Dibutyl adipate Dibutylamine. See Di-n-butylamine Di-N-butylamine. See Diisobutylamine n-Dibutylamine. See Di-n-butylamine Di-n-butylamine, 2:462. See also Di-n-butylamine chemical and physical properties, 2:463 exposure assessment, 2:463 guidelines of exposure, 2:463 production and use, 2:463 toxic effects, 2:463 N,N-Dibutylamine. See Di-n-butylamine Dibutylaminoethanol. See Dibutylethanolamine 2-(Dibutylamino)ethanol. See Dibutylethanolamine 2-N-Dibutylaminoethanol. See Dibutylethanolamine 2-N-Di-n-butylaminoethanol. See Dibutylethanolamine 2-Di-n-Butylaminoethanol. See Dibutylethanolamine 2-N,N-Dibutylaminoethanol. See Dibutylethanolamine Dibutyl azelate, 4:237 chemical and physical properties, 4:237 exposure assessment, 4:237 production and use, 4:237 toxic effects. 4:237 N,N-Dibutyl-1-butanamine. See Tri-n-butylamine Dibutyl o-(o-carboxybenzoyl) glycolate. See Butyl phthalyl butyl glycolate

Dibutyl o-carboxybenzoyloxyacetate. See Butyl phthalyl butyl glycolate Dibutyl cellosolve adipate. See Dibutoxyethyl adipate Dibutylcellosolve ftalat [Czech]. See Dibutoxyethyl phthalate Dibutyl cellosolve phthalate. See Dibutoxyethyl phthalate 2,6-Di-tert-butyl-p-cresol. See Di-tert-Butylmethylphenol Di-(4-t-butylcyclohexyl) peroxydicarbonate, 4:534 chemical and physical properties, 4:534 exposure assessment, 4:534 production and use, 4:534 toxic effects, 4:534 Dibutyl decanedioate. See Dibutyl sebacate Di-t-butyl diperazelate. See Di-t-butyl Diperoxyazelate Di-t-butyl diperoxyazelate, 4:557 chemical and physical properties, 4:557 exposure assessment, 4:557 toxic effects, 4:557 Di-t-butyl diperoxyphthalate, 4:558 chemical and physical properties, 4:558 exposure assessment, 4:558 toxic effects, 4:559 Dibutylester kyseliny adipove [Czech]. See n-Dibutyl adipate Dibutylester kyseliny fumarove [Czech]. See n-Dibutyl fumarate Di-n-butylester kyseliny jantarove [Czech]. See n-Dibutyl succinate Dibutylester kyseliny maleinove [Czech]. See Dibutyl maleate; Dipentyl maleate Dibutylester kyseliny sebakove [Czech]. See Dibutyl sebacate Dibutyl ester peroxydicarbonic acid. See Di-n-butyl peroxydicarbonate Di-sec-butyl ester peroxydicarbonic acid. See Di(sec-butyl) Peroxydicarbonate Dibutyl ethanedioate. See n-Dibutyl oxalate Dibutylethanolamine, 2:504 chemical and physical properties, 2:504 guidelines of exposure, 2:505 production and use, 2:504 toxic effects, 2:504 Dibutyl ether, 3:612 chemical and physical properties, 3:612 exposure assessment, 3:613 human experience, 3:613 toxic effects, 3:613 n-Dibutyl fumarate, 4:254 chemical and physical properties, 4:254, 4:255 production and use, 4:255 toxic effects, 4:255 experimental studies, 4:255 Dibutylglycol phthalate. See Dibutoxyethyl phthalate Dibutyl hexanedioate. See n-Dibutyl adipate N,N-Dibutyl-N-(2-hydroxyethyl)amine. See Dibutylethanolamine 2,6-Di-tert-butylhydroxytoluene. See Di-tert-Butylmethylphenol Dibutyl ketone. See 5-Nonanone Di-n-butyl ketone. See 5-Nonanone Dibutyl maleate, 4:249 chemical and physical properties, 4:250 production and use, 4:250 toxic effects, 4:250

acute toxicity, 4:250 chronic and subchronic toxicity, 4:250 experimental studies, 4:250 genetic and related cellular effects studies, 4:250 human experience, 4:250 neurological, pulmonary, skin sensitization, 4:250 reproductive and developmental, 4:250 Dibutyl maleinate. See Dibutyl maleate Di-tert-Butylmethylphenol, 2:326 chemical and physical properties, 2:326 production and use, 2:326 toxic effects, 2:326 Dibutylnitrosamine. See Nitrosodi-n-butylamine Dibutyl nonanedioate. See Dibutyl azelate 1,9-Di-n butyl nonanedioate. See Dibutyl azelate Dibutyl 1,8-octanedicarboxylate. See Dibutyl sebacate n-Dibutyl oxalate, 4:216 chemical and physical properties, 4:216 Di-n-butyl oxalate. See n-Dibutyl oxalate Di-t-butyl peroxide, 4:565 chemical and physical properties, 4:565-566 exposure assessment, 4:566 production and use, 4:566 toxic effects, 4:566 Di-t-butyl peroxide (DTBP), 4:530 Di-tert-butyl peroxide. See Di-t-butyl peroxide 2,2-Di-(t-butylperoxy)butane, 4:573 chemical and physical properties, 4:573-574 exposure assessment, 4:574 toxic effects, 4:574 4,4-Di-(t-butylperoxy) n-butyl valerate. See n-Butyl 4,4-Di(tbutylperoxy)valerate 1,1-Di-(t-butylperoxy)cyclohexane, 4:572 chemical and physical properties, 4:572 exposure assessment, 4:572-573 production and use, 4:572 toxic effects, 4:573 Di-n-butyl peroxydicarbonate, 4:534 chemical and physical properties, 4:535 exposure assessment, 4:535 guidelines of exposure, 4:535 toxic effects, 4:535 Di(sec-butyl) Peroxydicarbonate, 4:532 chemical and physical properties, 4:533 exposure assessment, 4:533 production and use, 4:533 toxic effects, 4:533 Di-(terc-butylperoxy)ftalato. See Di-t-butyl diperoxyphthalate 1,1-Di-(t-butylperoxy)-3,3,5-trimethylcyclohexane, 4:571 chemical and physical properties, 4:572 exposure assessment, 4:572 production and use, 4:572 toxic effects, 4:572 *n*-Dibutyl phthalate, **4:**268 chemical and physical properties, 4:269 exposure assessment, 4:269 odor and warning properties, 4:269 production and use, 4:269 standards, regulations, or guidelines of exposure, 4:271

studies on environmental impact, 4:271, 4:272 toxic effects. 4:269 acute toxicity, 4:269 chronic and subchronic toxicity, 4:269, 4:270 experimental studies, 4:269 genetic and related cellular effects studies, 4:271 human experience, 4:271 neurological, pulmonary, skin sensitization, 4:271 pharmacokinetics, metabolism, and mechanisms, 4:270 reproductive and developmental, 4:270, 4:271 Dibutyl sebacate, 4:239 chemical and physical properties, 4:239, 4:240 production and use, 4:240 toxic effects, 4:240 chronic and subchronic toxicity, 4:240 experimental studies, 4:240 genetic and related cellular effects studies, 4:240 human experience, 4:240 pharmacokinetics, metabolism, and mechanisms, 4:240 reproductive and developmental, 4:240 Di-n-butyl sebacate. See Dibutyl sebacate Dibutyl sebacinate. See Dibutyl sebacate Di-n-butyl succinate. See n-Dibutyl succinate n-Dibutyl succinate, 4:221 chemical and physical properties, 4:221 production and use, 4:221 toxic effects, 4:221 acute toxicity, 4:221 chronic and subchronic toxicity, 4:221 experimental studies, 4:221 Dibutyl sulfide, 4:1060 n-Dibutyl sulfone, 4:1062 Dibutyltin (DBT) concentrations, 1:363 treatment with. 1:370 Di-n-butyltin dichloride (DBTC), 1:368, 1:370 Dicapryl adipate. See n-Didecyl adipate Dicaprylyl adipate. See n-Dioctyl adipate Dicarbethoxyethyl-O,O-dimethyl-dithiophosphate. See Malathion Dicarbethoxymethane. See Diethyl malonate Dicarboethoxyethyl O,O-dimethyl phosphorodithioate. See Malathion Dicarboxymethane. See Malonic acid Di-(3-carboxypropionyl) peroxide. See Succinyl peroxide Dicetyl peroxydicarbonate, 4:535 chemical and physical properties, 4:536 exposure assessment, 4:536 production and use, 4:536 toxic effects, 4:536 Dichloran. See 2,6-Dichloro-4-nitroaniline Dichloroacetylene, 3:145 chemical and physical properties, 3:145 environmental impact, studies, 3:148 exposure assessment, 3:145 guidelines of exposure, 3:148 production and use, 3:145 toxic effects, 3:145 experimental studies, 3:145-147 human experience, 3:147-148

1,2-Dichloroacetylene. See Dichloroacetylene 2,3-Dichloroaniline, 2:556, 2:632 chemical and physical properties, 2:556 guidelines of exposure, 2:557 production and use, 2:556 toxic effects, 2:556 2,4-Dichloroaniline, 2:557, 2:632 chemical and physical properties, 2:557, 2:632 guidelines of exposure, 2:557 production and use, 2:557 toxic effects, 2:557, 2:632 2,5-Dichloroaniline, 2:557, 2:632 chemical and physical properties, 2:557, 2:633 guidelines of exposure, 2:557 production and use, 2:557, 2:633 toxic effects, 2:557, 2:633 2,6-Dichloroaniline, 2:558, 2:633 chemical and physical properties, 2:558, 2:633 guidelines of exposure, 2:558 production and use, 2:558 toxic effects, 2:558, 2:633 3,4-Dichloroaniline, 2:558, 2:631 chemical and physical properties, 2:558, 2:631 exposure assessment, 2:631 guidelines of exposure, 2:558, 2:632 production and use, 2:558, 2:631 toxic effects, 2:558, 2:631-632 3.5-Dichloroaniline, 2:558, 2:633 chemical and physical properties, 2:559, 2:633 guidelines of exposure, 2:559 production and use, 2:559 toxic effects, 2:559, 2:633 4,5-Dichloroaniline. See 3,4-Dichloroaniline m-Dichloroaniline. See 3,5-Dichloroaniline 2,4-Dichloroaniline, pract. See 2,4-Dichloroaniline 2,5-Dichlorobenzamine. See 2,5-Dichloroaniline 2,3-Dichlorobenzenamine. See 2,3-Dichloroaniline 2,4-Dichlorobenzenamine. See 2,4-Dichloroaniline 2,5-Dichlorobenzenamine. See 2,5-Dichloroaniline 2,6-Dichlorobenzenamine. See 2,6-Dichloroaniline 3.4-Dichlorobenzenamine. See 3.4-Dichloroaniline 3,5-Dichlorobenzenamine. See 3,5-Dichloroaniline 1,2-Dichlorobenzene. See Halogenated benzenes 1,4-Dichlorobenzene. See p-Dichlorobenzene o-Dichlorobenzene, 3:329 chemical and physical properties, 3:329-330 guidelines of exposure, 3:332 production and use, 3:330 toxic effects experimental studies, 3:330-332 human experience, 3:332 p-Dichlorobenzene, 3:332 chemical and physical properties, 3:332-333 exposure assessment, 3:333 guidelines of exposure, 3:338 production and use, 3:333 toxic effects, 3:333 experimental studies, 3:333-337 human experience, 3:337-338

2,6-Dichloro-1,4-benzenediamine. See 2,6-Dichloro-1,4phenylenediamine 1,3-Dichlorobenzene-1,4-dichlorobenzene-sodium hydrosulfide copolymer. See Polyphenylene sulfide m-Dichlorobenzene-p-dichlorobenzene-sodium sulfide copolymer. See Polyphenylene sulfide Dichlorobenzene-sodium sulfide copolymer. See Polyphenylene sulfide Dichlorobenzidine. See 3,3'-Dichlorobenzidine 3,3'-Dichlorobenzidine, 2:584, 2:674 exposure assessment, 2:585 guidelines of exposure, 2:585 physical and chemical properties, 2:584 production and use, 2:584 toxic effects. 2:585 3,3-Dichlorobenzidine. See 3,3'-Dichlorobenzidine o,o'-Dichlorobenzidine. See 3,3'-Dichlorobenzidine 3,3'-Dichlorobenzidine dihydrochloride, 2:674 chemical and physical properties, 2:674 exposure assessment, 2:674 guidelines of exposure, 2:675 production and use, 2:674 toxic effects, 2:674-675 Di(p-chlorobenzoyl) peroxide, 4:542 chemical and physical properties, 4:542 exposure assessment, 4:542 guidelines of exposure, 4:542 toxic effects, 4:542 3,3'-Dichloro-(1,1-biphenyl)-4,4'-diamine. See 3,3'-Dichlorobenzidine 3,3'-Dichloro-4,4'-biphenyldiamine. See 3,3'-Dichlorobenzidine 3,3'-Dichlorobiphenyl-4,4'-diamine. See 3,3'-Dichlorobenzidine 3,3'-Dichloro-4-4'-biphenyldiamine. See 3,3'-Dichlorobenzidine 3,3'-Dichloro(1,1'-biphenyl)-4,4'-diamine dihydrochloride. See 3,3'-Dichlorobenzidine dihydrochloride Di-(4-chlorobutyl) peroxydicarbonate, 4:538 chemical and physical properties, 4:538 exposure assessment, 4:538 production and use, 4:538 toxic effects, 4:538 1,1-Dichloro-2-chloroethylene. See Trichloroethylene 3,3'-Dichloro-4,4'-diaminobiphenyl. See 3,3'-Dichlorobenzidine 3,3'-Dichloro-4,4'-diaminodiphenyl methane. See 4,4'-Methylenebis(2-chloroaniline) 1,1-Dichloro-2,2-dichloroethane. See Tetrachloroethane-1,1,2,2 2,2'-Dichlorodiethyl ether. See Dichloroethyl ether 2,2'-Dichlorodiethyl formal. See Di(chloroethyl)formal Dichlorodiethylsilane. See Diethyldichloro silane 1,2-Dichloro-1,1-difluoroethane, 3:391 chemical and physical properties, 3:390 environmental impact, 3:391 exposure assessment, 3:390 guidelines of exposure, 3:391 production and use. 3:390 toxic effects experimental studies, 3:390-391 human experience, 3:391 1,2-Dichloro-2,2-difluoroethane. See 1,2-Dichloro-1,1difluoroethane

Dichlorodifluoromethane, 3:365 chemical and physical properties, 3:365 environmental impact, studies, 3:368 exposure assessment, 3:365-366 guidelines of exposure, 3:368 production and use, 3:365 toxic effects experimental studies, 3:366-367 human experience, 3:367-368 2,2'-Dichlorodiisopropyl ether. See Dichloroisopropyl ether 1,1'-Dichlorodimethyl ether. See Bis(chloromethyl) ether Dichlorodimethylsilane. See Dimethyldichloro silane Dichlorodimethylsilicon. See Dimethyldichloro silane Dichlorodiphenyltrichloroethane (DDT), 3:429, 3:432 chemical and physical properties, 3:432 exposure assessment, 3:432 guidelines of exposure, 3:437 production and use, 3:432 toxic effects, 3:432-437 experimental studies, 3:432-435 human experience, 3:435-437 Dichloroethane-1,1, 3:65 chemical and physical properties, 3:66 exposure assessment, 3:66 guidelines of exposure, 3:69 production and use, 3:66 toxic effects experimental studies, 3:66-69 human experience, 3:69 1,2-Dichloroethane. See Ethylene dichloride sym-Dichloroethane. See Ethylene dichloride Dichloroethene, 1,1-. See Vinylidene chloride 1,1-Dichloroethene. See Vinylidene chloride 1,2-Dichloroethene. See cis-/ trans-1,2-Dichloroethylene 1,1-Dichloro-ethene homopolymer. See Polyvinylidene chloride 2,2-Dichloroethenol dimethyl phosphate. See Dichlorvos Dichloroethenyl dimethyl phosphate. See Dichlorvos 2,2-Dichloroethenyl dimethyl phosphate. See Dichlorvos 2,2-Dichloroethenyl phosphoric acid dimethyl ester. See Dichlorvos Dichloroethylene. See Vinylidene chloride 1,1-Dichloroethylene. See Vinylidene chloride cis-/ trans-1,2-Dichloroethylene, 3:139 chemical and physical properties, 3:140 environmental impact, studies, 3:144-145 exposure assessment, 3:140-141 guidelines of exposure, 3:144 production and use, 3:140 toxic effects experimental studies, 3:141-144 human experience, 3:144 sym-Dichloroethylene. See cis-/ trans-1,2-Dichloroethylene Dichloroethylenes. See cis-/ trans-1,2-Dichloroethylene Dichloroethyl ether, 3:616 chemical and physical properties, 3:616 exposure assessment, 3:616 guidelines of exposure, 3:617 toxic effects

experimental studies, 3:616-617 human experience, 3:617 sym-Dichloroethyl ether. See Dichloroethyl ether Di(chloroethyl)formal, 3:720 chemical and physical properties, 3:720 Di-(2-chloroethyl) peroxydicarbonate, 4:537 chemical and physical properties, 4:537 exposure assessment, 4:537 production and use, 4:537 toxic effects, 4:537 Dichloroethyne. See Dichloroacetylene Dichlorofluoroethane. See 1,1-Dichloro-1-fluoroethane 1,1-Dichloro-1-fluoroethane, 3:393 chemical and physical properties, 3:393 environmental impact, studies, 3:395-396 exposure assessment, 3:394 guidelines of exposure, 3:395 production and use, 3:394 toxic effects experimental studies, 3:394-395 human experience, 3:395 Dichlorofluoromethane, 3:378 chemical and physical properties, 3:378 environmental impact, studies, 3:380 exposure assessment, 3:379 guidelines of exposure, 3:380 production and use, 3:378 toxic effects experimental studies, 3:379-380 human experience, 3:380 α,β -Dichloro- β -formylacrylic acid. See Mucochline Dichloroisopropyl ether, 3:617 chemical and physical properties, 3:618 toxic effects experimental studies, 3:618 Dichloromethane. See Methylene chloride Dichloromethyl ether. See Bis(chloromethyl) ether Dichloromonofluoromethane. See Dichlorofluoromethane 2,6-Dichloro-4-nitroaniline, 2:561, 2:633 chemical and physical properties, 2:561, 2:634 guidelines of exposure, 2:561 production and use, 2:561, 2:634 toxic effects, 2:561, 2:634 1,1-Dichloronitroethane inhalation of, 2:369 2,3-Dichloro-4-oxo-, (Z)-. See Mucochline 2,3-Dichloro-4-oxo-2-butenoic acid. See Mucochline Dichlorophenol, 2:300-301 2,3-Dichlorophenol, 2:301 2,4-Dichlorophenol, 2:301 acute toxicity of, 2:311 2,5-Dichlorophenol, 2:301 2,6-Dichlorophenol, 2:301 3,4-Dichlorophenol, 2:302 3,5-Dichlorophenol, 2:302 3,6-Dichlorophenol. See 2,5-Dichlorophenol 4,5-Dichlorophenol. See 3,4-Dichlorophenol 4,6-Dichlorophenol. See 2,4-Dichlorophenol Dichlorophenoxyacetic acid. See 2,4-Dichlorophenoxyacetic acid 2,4-Dichlorophenoxyacetic acid, 2:310, 3:459 chemical and physical properties, 2:310, 3:459 environmental impact, studies, 2:316 exposure assessment, 2:311, 3:460 guidelines of exposure, 2:315, 3:464 production and use, 2:310-311, 3:460 toxic effects, 2:311 carcinogenesis, 2:313 cellular effects studies, 2:313 epidemiology studies, 2:315 experimental studies, 2:311, 3:460-463 human experience, 2:314, 3:463-464 pharmacokinetics, metabolism, and mechanisms, **2:**312 pulmonary effects, 2:313 reproductive and developmental, 2:312 thyroid, 2:314 2,6-Dichloro-1,4-phenylenediamine chemical and physical properties, 2:567, 2:654 guidelines of exposure, 2:567 production and use, 2:567, 2:654 toxic effects, 2:567, 2:654 2,6-Dichloro-p-phenylenediamine. See 2,6-Dichloro-1,4phenylenediamine 1,2-Dichloropropane. See Propylene dichloride Dichloro-1,2-propane. See Propylene dichloride 1,3-Dichloropropene, 3:129 chemical and physical properties, 3:129 environmental impact, studies, 3:139 exposure assessment, 3:130-131 guidelines of exposure, 3:138-139 production and use, 3:129 toxic effects experimental studies, 3:132-137 human experience, 3:137-138 1,3-Dichloropropene-1. See 1,3-Dichloropropene 1,3-Dichloro-1-propene. See 1,3-Dichloropropene 1,3-Dichloro-2-propene. See 1,3-Dichloropropene 1,3-Dichloropropene, E,Z-. See 1,3-Dichloropropene 1,3-Dichloropropylene. See 1,3-Dichloropropene 1,3-Dichloro-1-propylene. See 1,3-Dichloropropene α,γ -Dichloropropylene. See 1,3-Dichloropropene Di-(3-chloropropyl) peroxydicarbonate, 4:537 chemical and physical properties, 4:537 exposure assessment, 4:537 production and use, 4:537 toxic effects, 4:537 1,1-Dichlorotetrafluoroethane. See 1,1,-Dichloro-1,2,2,2tetrafluoroethane 1,1,-Dichloro-1,2,2,2-tetrafluoroethane, 3:376 chemical and physical properties, 3:377 environmental impact, studies, 3:377 exposure assessment, 3:377 guidelines of exposure, 3:377 production and use, 3:377 toxic effects. 3:377 Dichloro-1,1,2,2-tetrafluoroethane. See 1,2,-Dichloro-1,1,2,2tetrafluoroethane 1,2-Dichloro-1,1,2,2-tetrafluoroethane, 3:375

chemical and physical properties, 3:375 environmental impact, studies, 3:376 exposure assessment, 3:375 guidelines of exposure, 3:376 production and use, 3:375 toxic effects, 3:375 experimental studies, 3:375-376 human experience, 3:376 Dichlorotrifluoroethane. See 1,1-Dichloro-2,2,2-trifluoroethane 1,1-Dichloro-2,2,2-trifluoroethane, 3:383 chemical and physical properties, 3:383 environmental impact, studies, 3:387-388 exposure assessment, 3:383-384 guidelines of exposure, 3:387 production and use, 3:383 toxic effects experimental studies, 3:384-387 human experience, 3:387 2,2-Dichlorovinyl alcohol dimethyl phosphate. See Dichlorvos 2,2-Dichlorovinyl dimethylphosphate. See Dichlorvos 2,2-Dichlorovinyl-O,O-dimethyl phosphate. See Dichlorvos 2,2-Dichlorovinyl dimethyl phosphoric acid ester. See Dichlorvos Dichlorvos, 4:1123-1130 chemical and physical properties, 4:1124 exposure assessment, 4:1124-1125 guidelines of exposure, 4:1129-1130 production and use, 4:1124 toxic effects experimental studies, 4:1125-1128 human experience, 4:1128-1129 Dichroism, 1:821 Diclear MA 300H. See Polyacrylamide Dicloran. See 2,6-Dichloro-4-nitroaniline Dicloron. See 2,6-Dichloro-4-nitroaniline Dicobalt edeate (Co2 EDTA), 1:650 Dicol. See Diethylene glycol DiC6P. See Diisohexyl phthalate Di-C7-11-phthalate, 4:296 chemical and physical properties, 4:297 production and use, 4:297 toxic effects, 4:297 acute toxicity, 4:297 carcinogenesis, 4:298 chronic and subchronic toxicity, 4:297, 4:298 experimental studies, 4:297 genetic and related cellular effects studies, 4:298 human experience, 4:298 neurological, pulmonary, skin sensitization, 4:298 reproductive and developmental, 4:298 studies on environmental impact, 4:298 Di-C9-11 phthalate, 4:298 chemical and physical properties, 4:299 production and use, 4:299 studies on environmental impact, 4:299 toxic effects, 4:299 acute toxicity, 4:299 experimental studies, 4:299 genetic and related cellular effects studies, 4:299

Dicrotophos, 4:1130 chemical and physical properties, 4:1130 exposure assessment, 4:1130-1131 guidelines of exposure, 4:1132 production and use, 4:1130 toxic effects experimental studies, 4:1131-1132 human experience, 4:1132 Dicumyl peroxide, 4:569 chemical and physical properties, 4:569 exposure assessment, 4:569 toxic effects, 4:569-570 Di-cumyl peroxide. See Dicumyl peroxide 2,2-Di-(cumylperoxy)propane, 4:575 chemical and physical properties, 4:575 exposure assessment, 4:575 production and use, 4:575 toxic effects, 4:575 Di-cup. See Dicumyl peroxide Dicyanodiamide chemical and physical properties, 2:950t-951t, 2:988 exposure assessment, 2:988 exposure standards, 2:988 production and use, 2:988 toxic effects acute toxicity, 2:988 chronic and subchronic toxicity, 2:988 experimental studies, 2:988 human experience, 2:988 Dicyclic alkanes, 2:129 Dicyclic alkenes, 2:132 Dicyclohexylamine, 2:480 chemical and physical properties, 2:480 guidelines of exposure, 2:480 production and use, 2:480 toxic effects, 2:480 N,N-Dicyclohexylamine. See Dicyclohexylamine N,N-Dicyclohexylbenzothiazolesulfenamide, 4:1068 animal and human studies, 4:1068 chemical and physical properties, 4:1068 Dicyclohexyl-18-crown ether, 3:645 Dicyclopentadiene, 1:24, 2:135 chemical and physical properties, 2:135-136 environmental impact, studies, 2:137 exposure assessment, 1:25, 2:136 guidelines of exposure, 2:137 production, 1:25 properties, 1:24, 1:25 standards, regulations/guidelines of exposure, 1:26 synonyms, 2:135 toxic effects, 1:25-26, 2:136-137 uses. 1:25 Dicyclopentadienyl iron. See Ferrocene Didecanoyl peroxide, 4:543 chemical and physical properties, 4:543 exposure assessment, 4:543 n-Didecyl adipate, 4:234 chemical and physical properties, 4:235

production and use, 4:235 toxic effects, 4:235 Di-n-decyl adipate. See n-Didecyl adipate Didecyl hexanedioate. See n-Didecyl adipate Didecyl tetrahydrophthalate, 4:320 toxic effects, 4:321 experimental studies, 4:321 Di-(2,4-dichlorobenzoyl) peroxide, 4:541 chemical and physical properties, 4:541 exposure assessment, 4:541 guidelines of exposure, 4:542 toxic effects, 4:542 Didodecanoyl peroxide. See Dilauroyl peroxide DIDP. See Diisodecyl phthalate Dieldrin, 3:440 chemical and physical properties, 3:441 environmental impact, studies, 3:445-446 guidelines of exposure, 3:445 production and use, 3:441 toxic effects experimental studies, 3:441-444 human experience, 3:444-445 Diepoxybutane. See Butadiene diepoxide 1,2:3,4-Diepoxybutane. See Butadiene diepoxide 3,4-Diepoxybutane. See Butadiene diepoxide Di(epoxypropyl)ether. See Diglycidyl ether Di(2,3-epoxy)propyl ether. See Diglycidyl ether Diesel fuel, 5:350 chemical and physical properties, 5:350 exposure assessment, 5:350 production and use, 5:350 toxic effects, 5:350 Diesel fuel oil No. 2-D. See Diesel fuel Diesel oil (petroleum). See Diesel fuel Diesel test fuel. See Diesel fuel Di (2-butoxyethyl) ester kyseliny flatlove [Czech]. See Dibutoxyethyl phthalate Dietary selenium supplementation, 1:854 Diethamine. See Diethylamine Diethanolamine, 2:493 chemical and physical properties, 2:493 guidelines of exposure, 2:494 production and use, 2:493 toxic effects, 2:493-494 N,N-Diethanolamine. See Diethanolamine Diethenylbenzene. See Divinylbenzene 1,1-Diethoxyacetal. See Acetals 1,2-Di(ethoxycarbonyl)ethyl O,O-dimethyl phosphorodithioate. See Malathion *S*-(1,2-Di(ethoxycarbonyl)ethyl) dimethylphosphorothiolothionate. See Malathion Diethoxydimethylsilane. See Dimethyldiethoxy silane Diethoxyethane. See Ethylene glycol diethyl ether 1,1-Diethoxyethane. See Acetals 1,2-Diethoxyethane. See Ethylene glycol diethyl ether Diethoxyethyl phthalate, 4:309 chemical and physical properties, 4:310 toxic effects, 4:310 Diethoxymethane. See Ethylal

Diethoxytetraethylene glycol. See Tetraethylene glycol diethyl ether Diethyl. See n-Butane Diethyl acetal. See Acetals Diethyl acetaldehyde. See 2-Ethylbutyraldehyde Diethylacetic acid. See 2-Ethylbutyric acid Diethyl adipate, 4:226 chemical and physical properties, 4:226 production and use, 4:227 toxic effects, 4:227 acute toxicity, 4:227 experimental studies, 4:227 genetic and related cellular effects studies, 4:227 reproductive and developmental, 4:227 Diethylamine, 2:453 chemical and physical properties, 2:453 exposure assessment, 2:454 guidelines of exposure, 2:454 production and use, 2:454 toxic effects, 2:454 N,N-Diethylamine. See Diethylamine N,N-Diethylaminobenzene. See N,N-Diethylaniline Diethylaminoethanol. See Diethylethanolamine 2-Diethylaminoethanol. See Diethylethanolamine 2-(Diethylamino) ethyl p-aminobenzoate, 4:183 chemical and physical properties, 4:183 exposure assessment, 4:183 production and use, 4:183 toxic effects acute toxicity, 4:183 clinical cases, 4:184 experimental studies, 4:183 genetic and related cellular effects studies, 4:184 human experience, 4:184 neurological, pulmonary, skin sensitization, 4:184 reproductive and developmental, 4:183, 4:184 2-Diethylaminoethyl p-aminobenzoate. See 2-(Diethylamino) ethyl *p*-aminobenzoate b-Diethylaminoethyl 4-aminobenzoate. See 2-(Diethylamino) ethyl *p*-aminobenzoate Diethylaminoethyl p-aminobenzoate. See 2-(Diethylamino) ethyl *p*-aminobenzoate 2-Diethylaminoethylester kyseliny p-aminobenzoove [Czech]. See 2-(Diethylamino) ethyl *p*-aminobenzoate O-(2-Diethylamino-6-methylpyrimidin-4-yl) O,O-dimethyl phosphorothioate. See Pirimiphos methyl 2-Diethylamino-6-methylpyrimidin-4-yl dimethyl phosphorothionate. See Pirimiphos methyl Diethylaniline. See N,N-Diethylaniline N,N-Diethylaniline, 2:554, 2:625 chemical and physical properties, 2:554, 2:625 guidelines of exposure, 2:554 production and use, 2:554, 2:626 toxic effects. 2:554. 2:626 N,N-Diethylbenzenamine. See N,N-Diethylaniline Diethylbenzene. See o/m/p-Diethylbenzene Diethyl butanedioate. See Diethyl succinate Di-2-(2-ethylbutoxy)ethyl adipate, 4:236. See also Di-2-(2ethylbutoxy)ethyl adipate

chemical and physical properties, 4:237 toxic effects, 4:237 Di(2-ethylbutyl) adipate, 4:229. See also Di(2-ethylbutyl) adipate chemical and physical properties, 4:229 production and use, 4:229 toxic effects, 4:229 experimental studies, 4:229 Diethyl carbinol. See 3-Pentanol Diethyl carbonate, 4:357 chemical and physical properties, 4:358 odor and warning properties, 4:358 production and use, 4:358 toxic effects, 4:358 acute toxicity, 4:358 carcinogenesis, 4:358 chronic and subchronic toxicity, 4:358 genetic and related cellular effects studies, 4:358 human experience, 4:358 pharmacokinetics, metabolism, and mechanisms, 4:358 reproductive and developmental, 4:358 Diethyl o-carboxybenzoyloxyacetate. See Ethyl phthalyl ethyl glycolate Diethyl cellosolve. See Ethylene glycol diethyl ether Diethyl(β-chloroethyl)amine (hydrochloride) carcinogenesis, 2:723 chemical and physical properties, 2:722 environmental impact studies, 2:723 exposure assessment, 2:722 exposure standards, 2:723 genetic and cellular effects, 2:723 pharmacokinetics, metabolism, and mechanisms, 2:723 production and use, 2:722 reproductive and developmental effects, 2:723 toxic effects acute toxicity, 2:722-723 experimental studies, 2:722-723 human experience, 2:723 subchronic and chronic toxicity, 2:723 O,O-Diethyl O-(3-chloro-4-methyl-7-coumarinyl) phosphorothioate. See Coumaphos Diethyl O-(3-chloro-4-methyl-2-oxo-2H-1-benzopyran-7-yl) phosphorothioate. See Coumaphos O,O-Diethyl O-(3-chloro-4-methyl-2-oxo-2H-1-benzopyran-7-yl) phosphorothioate. See Coumaphos O,O-Diethyl O-(3-chloro-4-methylumbelliferone). See Coumaphos Diethyl decanedioate. See Diethyl sebacate Diethyl 1,10-decanedioate. See Diethyl sebacate Diethyldichloro silane, 4:408 chemical and physical properties, 4:408 production and use, 4:408 toxic effects, 4:408, 4:409 acute toxicity, 4:408 clinical cases, 4:409 genetic and related cellular effects studies, 4:409 human experience, 4:409 Diethyldichlorosilicon. See Diethyldichloro silane O,O-Diethyl O-2-diethyl O-2-isopropyl-4-methyl-6-pyrimidinyl thiophosphate. See Diazinon

Diethyl [(dimethoxyphosphinothioyl)thio]butanedioate. See Malathion O,O-Diethyl (S-ethylmercaptomethyl) dithiophosphate. See Phorate Diethylene-1,4-dioxide. See Dioxane Diethylene glycol, 4:602 chemical and physical properties, 4:603 exposure assessment, 4:603 experimental studies, 4:603-605 human experience, 4:605 guidelines of exposure, 4:605 production and use, 4:603 toxic effects, 4:603-605 experimental studies, 4:603-605 human experience, 4:605 Diethylene glycol bis(allyl carbonate). See Allyl polymers Diethylene glycol diacrylate, 4:843. See Diethylene glycol diacrylate chemical and physical properties, 4:843 toxic effects, 4:843-844 Diethylene glycol dimethyl ether, 4:741 chemical and physical properties, 4:741 exposure assessment, 4:742 guidelines of exposure, 4:744 production and use, 4:742 toxic effects experimental studies, 4:742-744 human experience, 4:744 Diethylene glycol dinitrate, 4:860 chemical and physical properties, 4:861 exposure assessment, 4:861 guidelines of exposure, 4:862 toxic effects, 4:861-862 Diethylene glycol divinyl ether, 4:744 toxic effects, 4:744 Diethylene glycol ethyl vinyl ether, 4:744 chemical and physical properties, 4:744 guidelines of exposure, 4:744 production and use, 4:744 toxic effects, 4:744 Diethylene glycol mono-*n*-butyl ether, **4:**735 chemical and physical properties, 4:735 environmental impact, studies, 4:739 exposure assessment, 4:735 guidelines of exposure, 4:739 production and use, 4:735 toxic effects, 4:735 experimental studies, 4:736-738 human experience, 4:738-739 Diethylene glycol mono-n-butyl ether acetate, 4:764 chemical and physical properties, 4:764 exposure assessment, 4:764 guidelines of exposure, 4:765 production and use, 4:764 toxic effects, 4:764-765 Diethylene glycol monoethyl ether, 4:729 chemical and physical properties, 4:730 exposure assessment, 4:730 guidelines of exposure, 4:733

production and use, 4:730 toxic effects, 4:730 experimental studies, 4:730-733 human experience, 4:733 Diethylene glycol monoethyl ether acetate, 4:763 chemical and physical properties, 4:764 guidelines of exposure, 4:764 production and use, 4:764 toxic effects, 4:764 Diethylene glycol mono-n-hexyl ether, 4:739 chemical and physical properties, 4:740 exposure assessment, 4:740 guidelines of exposure, 4:741 production and use, 4:740 toxic effects experimental studies, 4:740-741 Diethylene glycol monoisobutyl ether, 4:739 chemical and physical properties, 4:739 exposure assessment, 4:739 guidelines of exposure, 4:739 production and use, 4:739 toxic effects, 4:739 Diethylene glycol monomethyl ether, 4:725 chemical and physical properties, 4:725 exposure assessment, 4:725 guidelines of exposure, 4:729 production and use, 4:725 toxic effects experimental studies, 4:725-728 human experience, 4:728-729 Diethylene glycol monomethyl ether acetate, 4:763 chemical and physical properties, 4:763 guidelines of exposure, 4:763 toxic effects, 4:763 Diethylene glycol monomethylpentyl ether, 4:745 chemical and physical properties, 4:745 production and use, 4:745 toxic effects, 4:745 Diethylene glycol mono-2-methylpentyl ether. See Diethylene glycol monomethylpentyl ether Diethylene glycol mono-*n*-propyl ether, 4:733 chemical and physical properties, 4:734 exposure assessment, 4:734 guidelines of exposure, 4:735 production and use, 4:734 toxic effects, 4:734 experimental studies, 4:734 Diethylenetriamine, 2:488. See also N-(Cyanoethyl) diethylenetriamine chemical and physical properties, 2:488 guidelines of exposure, 2:488 production and use, 2:488 toxic effects, 2:488 Diethylenetriaminepentaacetic acid, 2:489. See also Diethylenetriaminepentaacetic acid chemical and physical properties, 2:490 guidelines of exposure, 2:490 production and use, 2:490 toxic effects, 2:490

Diethylester kyseliny adipove. See Diethyl adipate Diethylester kyseliny fumarove [Czech]. See Diethyl fumarate Diethylester kyseliny jantarove [Czech]. See Diethyl succinate N,N-Diethylethanamine. See Triethylamine Diethyl ethanedicarboxylate. See Diethyl succinate Diethyl ethanedioate. See Diethyl oxalate Diethylethanolamine, 2:501 chemical and physical properties, 2:502 guidelines of exposure, 2:502 production and use, 2:502 toxic effects, 2:502 N-Diethylethanolamine. See Diethylethanolamine N,N-Diethylethanolamine. See Diethylethanolamine Diethyl ether, 3:599 atmospheric concentration of, 3:597t chemical and physical properties, 3:599 exposure assessment, 3:599 guidelines of exposure, 3:601 production and use, 3:599 toxic effects, 3:599 experimental studies, 3:599-600 human experience, 3:600-601 O,O-Diethyl S-ethylmercaptomethyl dithiophosphate. See Phorate O,O-Diethyl S-(ethylthio)methyl phosphorodithioate. See Phorate Diethyl S-((ethylthio)methyl) phosphorodithioate. See Phorate Diethylformal. See Ethylal Diethyl fumarate, 4:253 chemical and physical properties, 4:253 production and use, 4:253 toxic effects, 4:253 acute toxicity, 4:253 chronic and subchronic toxicity, 4:253 experimental studies, 4:253 genetic and related cellular effects studies, 4:253 Diethyl glutarate, 4:224 chemical and physical properties, 4:224 toxic effects, 4:224 acute toxicity, 4:224 experimental studies, 4:224 neurological, pulmonary, skin sensitization, 4:225 pharmacokinetics, metabolism, and mechanisms, 4:225 1,6-Diethyl hexanedioate. See Diethyl adipate Di(2-ethylhexyl) adipate, 4:229 chemical and physical properties, 4:230 exposure assessment, 4:230 production and use, 4:230 toxic effects, 4:230 acute toxicity, 4:230 carcinogenesis, 4:231 chronic and subchronic toxicity, 4:230 experimental studies, 4:230 genetic and related cellular effects studies, 4:231 human experience, 4:231, 4:232 neurological, pulmonary, skin sensitization, 4:231 pharmacokinetics, metabolism, and mechanisms, 4:230 reproductive and developmental, 4:230, 4:231 Di-(2-ethylhexyl)amine. See Dioctylamine Di(2-ethylhexyl) azelate, 4:237 chemical and physical properties, 4:238

exposure assessment, 4:238 production and use, 4:238 toxic effects, 4:238 acute toxicity, 4:238 chronic and subchronic toxicity, 4:238 experimental studies, 4:238 genetic and related cellular studies, 4:238 reproductive and developmental toxicity, 4:238 Di(2-ethylhexyl) butanedioate. See Di(2-ethylhexyl) succinate Di(2-ethylhexyl) ester. See Di(2-ethylhexyl) peroxydicarbonate Di(2-ethylhexyl) fumarate, 4:256 chemical and physical properties, 4:256 toxic effects, 4:256, 4:257 Di(2-ethylhexyl) isophthalate, 4:314 chemical and physical properties, 4:314 toxic effects, 4:315 experimental studies, 4:315 Di(2-ethylhexyl) maleate, 4:252 chemical and physical properties, 4:252 toxic effects, 4:252 acute toxicity, 4:252 experimental studies, 4:252 neurological, pulmonary, skin sensitization, 4:252 Di(2-ethylhexyl)orthophosphoric acid. See Di(2-ethylhexyl) phosphate Di(2-ethylhexyl) peroxydicarbonate, 4:533 chemical and physical properties, 4:533 exposure assessment, 4:533 production and use, 4:533 toxic effects, 4:533-534 Di(2-ethylhexyl) phosphate, 4:382 chemical and physical properties, 4:382 odor and warning properties, 4:383 production and use, 4:383 standards, regulations, or guidelines of exposure, 4:383 studies on environmental impact, 4:383 toxic effects, 4:383 acute toxicity, 4:383 human experience, 4:383 Di-(2-ethylhexyl)-phosphate. See Di(2-ethylhexyl) phosphate Di(2-ethylhexyl)phosphoricacid. See Di(2-ethylhexyl) phosphate Di(2-ethylhexyl) phthalate, 4:280 chemical and physical properties, 4:280 production and use, 4:280, 4:281 standards, regulations, or guidelines of exposure, 4:285 studies on environmental impact, 4:285 toxic effects, 4:281 acute toxicity, 4:281 carcinogenesis, 4:284 chronic and subchronic toxicity, 4:281, 4:282 experimental studies, 4:281 genetic and related cellular effects studies, 4:284, 4:285 human experience, 4:285 neurological, pulmonary, skin sensitization, 4:285 reproductive and developmental, 4:282-4:284 Di(2-ethylhexyl) sebacate, 4:241, 4:242 chemical and physical properties, 4:242 odor and warning properties, 4:242 production and use, 4:242

toxic effects, 4:242 acute toxicity, 4:242 carcinogenesis, 4:242 experimental studies, 4:242 genetic and related cellular effects studies, 4:242 neurological, pulmonary, skin sensitization, 4:242 Di(2-ethylhexyl) sodium sulfosuccinate. See Dioctyl sodium sulfosuccinate Di(2-ethylhexyl) succinate, 4:221 chemical and physical properties, 4:222 Di(2-ethylhexyl)sulfosuccinic acid, sodium salt. See Dioctyl sodium sulfosuccinate Di(2-ethylhexyl) terephthalate, 4:317 chemical and physical properties, 4:318 odor and warning properties, 4:318 production and use, 4:318 toxic effects, 4:318 acute toxicity, 4:318 carcinogenesis, 4:319 chronic and subchronic toxicity, 4:318 genetic and related cellular effects studies, 4:319 neurological, pulmonary, skin sensitization, 4:319 pharmacokinetics, metabolism, and mechanisms, 4:318 reproductive and developmental, 4:318-4:319 Di(2-ethylhexyl) tetrahydrophthalate, 4:320 toxic effects, 4:320 experimental studies, 4:320 Diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate. See Diazinon O,O-Diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl), phosphorothioate. See Diazinon Diethyl 2-isopropyl-4-methyl-6-pyrimidinyl phosphorothionate. See Diazinon Diethyl 2-isopropyl-6-methyl-4-pyrimidinyl phosphorothionate. See Diazinon *O*,*O*-Diethyl *O*-(2-isopropyl-4-methyl-6-pyrimidinyl) thiophosphoric acid. See Diazinon Diethyl 2-isopropyl-4-methyl-6-pyrimidyl thionophosphate. See Diazinon O,O-Diethyl O-2-isopropyl-4-methyl-6-pyrimidyl thiophosphate. See Diazinon Diethyl itaconate, 4:258 chemical and physical properties, 4:258 Diethyl maleate, 4:247 chemical and physical properties, 4:248 production and use, 4:248 toxic effects, 4:248 acute toxicity, 4:248 carcinogenesis, 4:248 experimental studies, 4:248 genetic and related cellular effects studies, 4:248 human experience, 4:248, 4:249 neurological, pulmonary, skin sensitization, 4:248 pharmacokinetics, metabolism, and mechanisms, 4:248 reproductive and developmental, 4:248 Diethyl malonate, 4:218 chemical and physical properties, 4:219 exposure assessment, 4:219 production and use, 4:219

toxic effects, 4:219 acute toxicity, 4:219 chronic and subchronic toxicity, 4:219 experimental studies, 4:219 genetic and related cellular effects studies, 4:219 pharmacokinetics, metabolism, and mechanisms, 4:219 Diethylmercaptosuccinate, O, O-dimethyl dithiophosphate, S-ester. See Malathion Diethyl mercaptosuccinate, O,O-dimethyl thiophosphate. See Malathion Diethyl mercaptosuccinate S-ester with O, Odimethylphosphorodithioate. See Malathion Diethyl mercaptosuccinate, O,O-dimethyl phosphorodithioate. See Malathion Diethyl mercaptosuccinic acid, S-ester of O,O-dimethyl phosphorodithioate. See Malathion Diethyl mercaptosuccinic O, O-dimethyl-S (1,2-bis (ethoxycarbonyl)ethyl)dithiophosphate. See Malathion Diethyl methylenebutanedioate. See Diethyl itaconate Diethylmethylmethane. See 3-Methylpentane *O*,*O*-Diethyl *O*-(6-methyl-2-(1-methylethyl)-4-pyrimidinyl) phosophorothioate. See Diazinon N,N-Diethyl-N-(β-hydroxyethyl)amine. See Diethylethanolamine Diethylnitrosamine. See N-Nitrosodiethylamine Diethylnitrosamine (DENA)-induced hepatocarcinogenesis, 1:526 Diethyl 1,8-octanedicarboxylate. See Diethyl sebacate Diethylolamine. See Diethanolamine Diethyl oxalate, 4:215 chemical and physical properties, 4:215 exposure assessment, 4:215 odor and warning properties, 4:215 production and use, 4:215 toxic effects, 4:215 acute toxicity, 4:215 experimental studies, 4:215 human experience, 4:216 neurological, pulmonary, skin sensitization, 4:215, 4:216 pharmacokinetics, metabolism, and mechanisms, 4:215 Diethyl oxide. See Diethyl ether Diethyl pentanedioate. See Glutarates Diethylphenylamine. See N,N-Diethylaniline O,O-Diethyl (S-ethylthiomethyl) phosphorodithioate. See Phorate Diethyl phthalate, 4:265 chemical and physical properties, 4:265 exposure assessment, 4:265 production and use, 4:265 standards, regulations, or guidelines of exposure, 4:268 studies on environmental impact, 4:268 toxic effects, 4:267 carcinogenesis, 4:268 chronic and subchronic toxicity, 4:267 experimental studies, 4:267 genetic and related cellular effects studies, 4:268 human experience, 4:268 neurological, pulmonary, skin sensitization, 4:268 pharmacokinetics, metabolism, and mechanisms, 4:267 reproductive and developmental, 4:267, 4:268 Diethyl propanedioate. See Diethyl malonate

O,*O*-Diethyl S-(((1,1-dimethylethyl)thio)methyl) phosphorodithioic acid. See Terbufos Diethyl sebacate, 4:238 chemical and physical properties, 4:239 production and use, 4:239 toxic effects, 4:239 experimental studies, 4:239 human experience, 4:239 Diethyl succinate, 4:219 chemical and physical properties, 4:220 odor and warning properties, 4:220 production and use, 4:220 toxic effects, 4:220 acute toxicity, 4:220 experimental studies, 4:220 Diethyl (dimethoxyphosphinothioylthio) succinate. See Malathion Diethyl sulfide animal and human studies, 4:1060 chemical and physical properties, 4:1059 Diethyl sulfoxide, 4:1062 O,O-Diethyl O-(1,2,2,2-tetrachloroethyl) ester. See Chlorethoxyphos Diethyl O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate. See Chlorpyrifos O,O-Diethyl O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate. See Chlorpyrifos O,O-Diethyl O-(3,5,6-trichloro-2-pyridinyl) phosphorothioic acid. See Chlorpyrifos Diethyl O-(3,5,6-trichloro-2-pyridyl) phosphorothioate. See Chlorpyrifos O,O-Diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate. See Chlorpyrifos O,O-Diethyl O-(3,5,6-trichloro-2-pyridyl) phosphorothioic acid. See Chlorpyrifos Differential pulse anodic stripping voltammetry (DPASV), 1:656 Differential-pulse voltammetry (DPV), 1:730 Diffuse follicular hyperplasia, 2:956 Diffusion lung capacity—carbon monoxide (DLCO), 1:951 Difluorochloromethane. See Chlorodifluoromethane Difluorodichloromethane. See Dichlorodifluoromethane Difluoroethane. See 1,1-Difluoroethane 1,1-Difluoroethane, 3:407 chemical and physical properties, 3:407 environmental impact, studies, 3:408 exposure assessment, 3:407 guidelines of exposure, 3:408 production and use, 3:407 toxic effects experimental studies, 3:407-408 human experience, 3:408 Difluoromethane, 3:398 chemical and physical properties, 3:398 environmental impact, studies, 3:400 exposure assessment, 3:399 production and use, 3:398-399 toxic effects, 3:399 experimental studies, 3:399-400 human experience, 3:400

1,2-Difluoro-1,1,2,2-tetrachloroethane. See 1,1,2,2-Tetrachloro-1.2-difluoroethane 2,2-Difluoro-1,1,1,2-tetrachloroethane. See 1,1,1,2-Tetrachloro-2,2-difluoroethane 1,3-Diformylpropane. See Glutaraldehyde Diglycidyl 1,2-cyclohexanedicarboxylate. See Hexahydrophthalic acid diglycidyl ester Diglycidyl ether, 4:469 chemical and physical properties, 4:469 exposure assessment, 4:469 guidelines of exposure, 4:471 production and use, 4:469 toxic effects, 4:470 experimental studies, 4:470-471 humans experience, 4:471 Diglycidyl ether of bisphenol A. See Bisphenol A diglycidyl ether Diglycidyl ether of 4,4'-isopropylidenediphenol. See Bisphenol A diglycidyl ether Diglycidyl ether of neopentyl glycol. See Neopentyl glycol diglycidyl ether Diglycidyl o-phthalate. See Phthalic acid diglycidyl ester Diglycol monobutyl ether. See Diethylene glycol mono-n-butyl ether Diglycol monoethyl ether. See Diethylene glycol monoethyl ether Diglyme; 2,5,8-trioxanonane. See Diethylene glycol dimethyl ether Digol dinitrate. See Diethylene glycol dinitrate Diheptylamine. See Di-n-heptylamine Di-n-heptylamine, 2:472 guidelines of exposure, 2:473 production and use, 2:472 toxic effects, 2:472-473 *n*-Diheptyl phthalate, **4:**276 chemical and physical properties, 4:276, 4:277 exposure assessment, 4:278 production and use, 4:277, 4:278 studies on environmental impact, 4:279 toxic effects, 4:277, 4:278 acute toxicity, 4:278 chronic and subchronic toxicity, 4:277, 4:278 experimental studies, 4:277, 4:278 genetic and related cellular effects studies, 4:279 human experience, 4:279 neurological, pulmonary, skin sensitization, 4:279 pharmacokinetics, metabolism, and mechanisms, 4:277, 4:278 reproductive and developmental, 4:277, 4:278, 4:279 Dihexadecyl peroxydicarbonate. See Dicetyl peroxydicarbonate Di(1,4-hexadienyl) tetrahydrophthalate, 4:321 toxic effects, 4:321 experimental studies, 4:321 Dihexylamine, 2:470 chemical and physical properties, 2:470 exposure assessment, 2:470 guidelines of exposure, 2:470 production and use, 2:470 toxic effects, 2:470 Di-n-hexylamine. See Dihexylamine N,N-Dihexylamine. See Dihexylamine n-Dihexyl maleate, 4:251

chemical and physical properties, 4:251 toxic effects, 4:252 Di-hexyl-octyl-decyl phthalate, 4:275 chemical and physical properties, 4:276 production and use, 4:276 toxic effects, 4:276 acute toxicity, 4:276 chronic and subchronic toxicity, 4:276 experimental studies, 4:276 Dihexyloxyethyl adipate. See Di(2-hexyloxyethyl) adipate Di(2-hexyloxyethyl) adipate, 4:236 chemical and physical properties, 4:236 toxic effects, 4:236 Di(2-hexyloxyethyl) succinate, 4:222 chemical and physical properties, 4:222 toxic effects, 4:222 experimental studies, 4:222 Di(1-hexyloxythyl) adipate. See Di(2-hexyloxyethyl) adipate n-Dihexyl phthalate, 4:273 chemical and physical properties, 4:273 production and use, 4:273 studies on environmental impact, 4:274 toxic effects, 4:273 acute toxicity, 4:273, 4:274 chronic and subchronic toxicity, 4:274 experimental studies, 4:273 genetic and related cellular effects studies, 4:274 neurological, pulmonary, skin sensitization, 4:274 pharmacokinetics, metabolism, and mechanisms, 4:274 reproductive and developmental, 4:274 1,2-Dihydroaceanthrylene, 5:411 chemical and physical properties, 5:411 exposure assessment, 5:411 guidelines of exposure, 5:411 production and use, 5:411 toxic effects, 5:411 1,2-Dihydroacenaphthylene. See Acenaphthene 1,8-Dihydroacenaphythylene. See Acenaphthene Dihydrocitronellol. See 3,7-Dimethyl-1-octanol S-[(1,3-Dihydro-1, 3-dioxo-2H-isoindol-2-yl)methyl]O,Odimethyl phosphorothioate. See Phosmet Dihydrofumaric acid. See Succinic acid 2,3-Dihydro-1H-benzo[a]cyclopent[h]anthracene. See 5,6-Cyclopenteno-1,2-benzanthracene 1,2-Dihydro-3-methylbenz[j]aceanthrylene. See 3-Methylcholanthrene Dihydrooxirene. See Ethylene oxide 7,8-Dihydro-8-oxo-2'-deoxyguanosine (8-OhdG), 6:184 1,1-Dihydroperoxycyclohexane, 4:563 chemical and physical properties, 4:563 exposure assessment, 4:563 toxic effects, 4:563 Di-(1-hydroperoxycyclohexyl) peroxide, 4:564 chemical and physical properties, 4:564 exposure assessment, 4:564 toxic effects, 4:564 3,4-Dihydro-2H-pyrrole. See 1-Pyrroline p-Dihydroxybenzaldehyde, 3:710 3,4-Dihydroxybenzaldehyde methylene ketal. See Piperonal

1,2-Dihydroxybenzene. See Pyrocatechol 1.3-Dihydroxybenzene. See Resorcinol 1,4-Dihydroxybenzene. See Hydroquinone m-Dihydroxybenzene. See Resorcinol o-Dihydroxybenzene. See Pyrocatechol 1,3-Dihydroxybenzene diacetate. See Resorcinol diacetate 4,5-Dihydroxy-1,3-benzenedisulfonic acid disodium salt. See Tiron 1,2-Dihydroxybutane. See 1,2-Butanediol 1,3-Dihydroxybutane. See 1,3-Butanediol 1,4-Dihydroxybutane. See 1,4-Butanediol 2,3-Dihydroxybutanedioic acid. See Tartaric acid Di(1-hydroxycyclohexyl) peroxide, 4:564 chemical and physical properties, 4:564 exposure assessment, 4:564 toxic effects, 4:564 Dihydroxydicyclohexyl peroxide. See Di(1-hydroxycyclohexyl) peroxide 2,2'-Dihydroxydiethylamine. See Diethanolamine 2,2'-Dihydroxydiethyl ether. See Diethylene glycol 2,2'-dihydroxy-dipropyl-amine. See Diisopropanolamine 1,2-Dihydroxyethane. See Ethylene glycol Dihydroxyethylether. See Diethylene glycol 2,2'-Dihydroxyethyl ether. See Diethylene glycol 2,4-Dihydroxy-2-methyl-4-hydroperoxypentane. See Diacetone alcohol peroxide 3,4-Dihydroxyphenylacetic acid, levels increased on PND 21, 1:620 3,4-Dihydroxyphenylalanine (DOPA), titanium salts inhibiting action of tyrosinase on, 1:430 1,2-Dihydroxypropane. See Propylene glycol 1,3-Dihydroxypropane. See 1,3-Propanediol 2,3-Dihydroxysuccinic acid. See Tartaric acid Diisoamyl peroxydicarbonate. See Di-(3-methylbutyl) peroxydicarbonate Diisobutylamine, 2:462 chemical and physical properties, 2:462 guidelines of exposure, 2:462 production and use, 2:462 toxic effects, 2:462 Diisobutylester kyseliny fumarove [Czech]. See Diisobutyl fumarate Diisobutyl fumarate, 4:255 chemical and physical properties, 4:255 toxic effects, 4:255 Diisobutyl ketone, 3:882 chemical and physical properties, 3:882 environmental impact, studies, 3:885 exposure assessment, 3:883 guidelines of exposure, 3:884 production and use, 3:882-883 toxic effects experimental studies, 3:883-884 human experience, 3:884 Diisobutyl oxalate, 4:217 chemical and physical properties, 4:217 Diisobutyl phthalate, 4:272 chemical and physical properties, 4:272 exposure assessment, 4:272 production and use, 4:272 studies on environmental impact, 4:273

Diisobutyl phthalate (Continued) toxic effects. 4:272 acute effects, 4:272 chronic and subchronic toxicity, 4:272 experimental studies, 4:272 genetic and related cellular effects studies, 4:273 neurological, pulmonary, skin sensitization, 4:273 pharmacokinetics, metabolism, and mechanisms, 4:272 reproductive and developmental, 4:272, 4:273 Diisodecyl phthalate, 4:289 chemical and physical properties, 4:289, 4:290 exposure assessment, 4:290 production and use, 4:290 studies on environmental impact, 4:291 toxic effects, 4:290 acute toxicity, 4:290 carcinogenesis, 4:291 chronic and subchronic toxicity, 4:290 experimental studies, 4:290 genetic and related cellular effects studies, 4:291 human experience, 4:291 neurological, pulmonary, skin sensitization, 4:291 pharmacokinetics, metabolism, and mechanisms, 4:290 reproductive and developmental, 4:291 Diisohexyl phthalate, 4:274 chemical and physical properties, 4:274, 4:275 exposure assessment, 4:275 production and use, 4:275 studies on environmental impact, 4:275 toxic effects, 4:275 chronic and subchronic toxicity, 4:275 experimental studies, 4:275 genetic and related cellular effects studies, 4:275 human experience, 4:275 neurological, pulmonary, skin sensitization, 4:275 pharmacokinetics, metabolism, and mechanisms, 4:275 reproductive and developmental, 4:275 Diisononanoyl peroxide. See Di-(3,5,5-trimethylhexanoyl) peroxide Diisononyl adipate, 4:233 chemical and physical properties, 4:233, 4:234 production and use, 4:234 toxic effects, 4:234 acute toxicity, 4:234 chronic and subchronic toxicity, 4:234 experimental studies, 4:234 genetic and related cellular effects studies, 4:234 neurological, pulmonary, skin sensitization, 4:234 Diisononyl cyclohexanoate, 4:242 chemical and physical properties, 4:243 production and use, 4:243 toxic effects, 4:243 acute toxicity, 4:243 carcinogenesis, 4:244 chronic and subchronic toxicity, 4:243 experimental studies, 4:243 genetic and related cellular effects studies, 4:244 pharmacokinetics, metabolism, and mechanisms, 4:243 reproductive and developmental, 4:244

Diisononyl hexanedioate. See Diisononyl adipate Diisononyl phthalate, 4:286 chemical and physical properties, 4:286, 4:287 exposure assessment, 4:287 production and use, 4:287 studies on environmental impact, 4:289 toxic effects, 4:287 acute toxicity, 4:287 carcinogenesis, 4:289 chronic and subchronic toxicity, 4:287, 4:288 experimental studies, 4:287 genetic and related cellular effects studies, 4:289 neurological, pulmonary, skin sensitization, 4:289 pharmacokinetics, metabolism, and mechanisms, 4:288 reproductive and developmental, 4:288, 4:289 Di-isononyl phthalate. See Diisononyl phthalate Diisooctyl adipate, 4:233 chemical and physical properties, 4:233 production and use, 4:233 toxic effects, 4:233 Di-iso-octyl adipate. See Diisooctyl adipate Diisooctyl 1,2-benzenedicarboxylate. See Diisooctyl phthalate Diisooctyl decanedioate. See Diisooctyl sebacate Diisooctyl fumarate, 4:255 chemical and physical properties, 4:256 Diisooctyl hexanedioate. See Diisooctyl adipate Diisooctyl phthalate, 4:279 chemical and physical properties, 4:279 production and use, 4:279 studies on environmental impact, 4:280 toxic effects, 4:280 acute toxicity, 4:280 chronic and subchronic toxicity, 4:280 experimental studies, 4:280 genetic and related cellular effects studies, 4:280 pharmacokinetics, metabolism, and mechanisms, 4:280 Di-iso-octyl phthalate. See Diisooctyl phthalate Diisooctyl sebacate, 4:241 chemical and physical properties, 4:241 Diisopropanolamine, 2:496 chemical and physical properties, 2:497 exposure assessment, 2:497 guidelines of exposure, 2:497 production and use, 2:497 toxic effects, 2:497 Diisopropyl. See 2,3-Dimethylbutane Diisopropylacetone. See Diisobutyl ketone s-Diisopropylacetone. See Diisobutyl ketone sym-Diisopropyl acetone. See Diisobutyl ketone Diisopropylamine, 2:458 chemical and physical properties, 2:458 exposure assessment, 2:458 guidelines of exposure, 2:459 production and use, 2:458 toxic effects, 2:458-459 N,N-Diisopropylamine. See Diisopropylamine 2-(Diisopropylamino)ethanol. See Diisopropylethanolamine Diisopropylbenzene. See o/m/p-Diisopropylbenzene

Diisopropylbenzene hydroperoxide. See Isopropyl cumyl hydroperoxide Diisopropylbenzene peroxide. See Dicumyl peroxide O,O-Diisopropyl 2-(benzenesulfonamido)ethyl dithiophosphate. See Bensulide N, N-Diisopropyl-2-benzothiazolesulfenamide animal and human studies, 4:1066 chemical and physical properties, 4:1066 Diisopropylester kyseliny fumarove [Czech]. See Diisopropyl fumarate Diisopropylester kyseliny maleinove [Czech]. See Diisopropyl maleate Diisopropylethanolamine, 2:503 chemical and physical properties, 2:503 guidelines of exposure, 2:503 production and use, 2:503 toxic effects, 2:503 N,N-Diisopropyl ethanolamine. See Diisopropylethanolamine Diisopropyl ether, 3:601 chemical and physical properties, 3:602 exposure assessment, 3:602 guidelines of exposure, 3:602 toxic effects, 3:602 experimental studies, 3:602 human experience, 3:602 Diisopropyl fumarate, 4:254 chemical and physical properties, 4:254 toxic effects, 4:254 experimental studies, 4:254 Diisopropyl ketone, 3:862 chemical and physical properties, 3:862-863 environmental impact, studies, 3:864 exposure assessment, 3:863 production and use, 3:863 toxic effects, 3:863 experimental studies, 3:863 human experience, 3:863 Diisopropyl maleate, 4:249 chemical and physical properties, 4:249 toxic effects, 4:249 Diisopropyl oxalate, 4:216 chemical and physical properties, 4:216 Diisopropyl perdicarbonate. See Diisopropyl peroxydicarbonate Diisopropyl peroxydicarbonate, 4:530 chemical and physical properties, 4:530 exposure assessment, 4:530 guidelines of exposure, 4:532 production and use, 4:530 toxic effects, 4:530-532 S-(O,O-Diisopropyl phosphorodithioate) ester of N-(2mercptoethyl) benzenesulfonamide. See Bensulide Diisotridecyl phthalate, 4:295 chemical and physical properties, 4:296 production and use, 4:296 toxic effects, 4:296 acute toxicity, 4:296 experimental studies, 4:296 genetic and related cellular effects studies, 4:296 neurological, pulmonary, skin sensitization, 4:296

reproductive and developmental, 4:296 Diisoundecyl phthalate, 4:295 chemical and physical properties, 4:295 exposure assessment, 4:295 production and use, 4:295 toxic effects, 4:295 acute toxicity, 4:295 chronic and subchronic toxicity, 4:295 experimental studies, 4:295 2,3-Diketobutane. See Diacetyl 2,5-Diketohexane. See 2,5-Hexanedione Diketone alcohol. See 4-Hydroxy-4-methyl-2-pentanone Diketones structure-activity relationships of, 3:809t Dilauroyl peroxide, 4:543 chemical and physical properties, 4:544 exposure assessment, 4:544 production and use, 4:544 toxic effects, 4:544 Dimepranol. See Dimethylisopropanolamine 2,3-Dimercaptopropane-1-sulfonate (DMPS) and bismuth toxicity, 1:501 Dimercaptosuccinic acid (DMSA), 1:221, 1:274, 1:413 Di-Me terephthalate. See Dimethyl terephthalate Di (4-amino-3-chlorophenyl)methane. See 4,4'-Methylenebis(2chloroaniline) exo-Dimethanonaphthalene. See Aldrin Dimethicream. See Polydimethyl silicones Dimethoate, 4:1132 chemical and physical properties, 4:1132-1133 exposure assessment, 4:1133-1134 guidelines of exposure, 4:1139 production and use, 4:1133 toxic effects experimental studies, 4:1134-1137 human experience, 4:1137-1139 1,2-Dimethoxy-4-allylbenzene. See Methyleugenol 3,4-Dimethoxyallyl benzene. See Methyleugenol 1,4-Dimethoxybenzene. See Hydroquinone dimethyl ether 3,3'-Dimethoxybenzidine, 2:585 chemical and physical properties, 2:585 exposure assessment, 2:585 guidelines of exposure, 2:585 production and use, 2:585 toxic effects, 2:585 3,3'-Dimethoxy-1,1'-biphenyl-4,4'-diamine. See 3,3'-Dimethoxybenzidine 4,4-Dimethoxy-2-butanone. See Ketoacetal 3,3'-Dimethoxy-4,4'-diaminobiphenyl. See 3,3'-Dimethoxybenzidine Dimethoxyethane. See Ethylene glycol dimethyl ether 1,1-Dimethoxyethane. See Dimethylacetal 1,2-Dimethoxyethane. See Ethylene glycol dimethyl ether Di(2-methoxyethyl) ester kyseliny flatlove [Czech]. See Dimethoxyethyl phthalate Dimethoxyethyl phthalate, 4:308 chemical and physical properties, 4:308 production and use, 4:308 studies on environmental impact, 4:309

Dimethoxyethyl phthalate (Continued) toxic effects. 4:308 acute toxicity, 4:308 chronic and subchronic toxicity, 4:308-4:309 experimental studies, 4:308 genetic and related cellular effects studies, 4:309 neurological, pulmonary, skin sensitization, 4:309 reproductive and developmental, 4:309 3,3'-Dimethoxylbenzidine, 2:676 chemical and physical properties, 2:676 exposure assessment, 2:677 guidelines of exposure, 2:677 production and use, 2:676 toxic effects, 2:677 Dimethoxymethane. See Methylal 1-(3,4-Dimethoxyphenyl)-2-propene. See Methyleugenol [(Dimethoxyphosphinothioyl) thio]butanedioic acid diethyl ester. See Malathion 3-Dimethoxyphosphinyloxy-N,N-dimethylisocrotonamide. See Dicrotophos 1,2-Dimethoxy-4-(1-propenyl). See Methylisoeugenol 1,2-Dimethoxy-4-propen-1-yl benzene. See Methylisoeugenol 1,2-Dimethoxy-4-(2-propenyl)benzene. See Methyleugenol 3,4-Dimethoxy-1,1-propen-1-yl benzene. See Methylisoeugenol Dimethoxy-4-(2-propenyl)benzene. See Methyleugenol Dimethoxy-2,2,2-trichloro-1-hydroxyethylphosphine oxide. See Trichlorfon Dimethyaminocyclohexane. See Dimethylcyclohexylamine Dimethyl. See Ethane Dimethylacetal, 3:720 chemical and physical properties, 3:720 toxic effects, 3:720 Dimethylacetamide, 2:888 chemical and physical properties, 2:889 environmental impact, studies, 2:894 exposure assessment, 2:889 guidelines of exposure, 2:894 production and use, 2:889 toxic effects carcinogenesis, 2:892 cellular effects studies. 2:892 chronic and subchronic, 2:889-891 experimental studies, 2:889 genetic toxicity, 2:893 human experience, 2:892 reproductive and developmental., 2:891-892 Dimethylacetic acid. See Isobutyric acid O,S-Dimethyl acetylphosphoramidothioate. See Acephate Dimethyl adipate, 4:225 chemical and physical properties, 4:225 production and use, 4:225 studies on environmental impact, 4:226 toxic effects, 4:225 acute toxicity, 4:225 carcinogenesis, 4:226 chronic and subchronic toxicity, 4:225 experimental studies, 4:225 genetic and related cellular effects studies, 4:226 neurological, pulmonary, skin sensitization, 4:226

reproductive and developmental, 4:226 Dimethylamine, 2:449 chemical and physical properties, 2:449 exposure assessment, 2:450 guidelines of exposure, 2:451 production and use, 2:450 toxic effects, 2:450-451 Dimethylaminoazobenzene. See 4-Dimethylaminoazobenzene 4-Dimethylaminoazobenzene, 2:682 chemical and physical properties, 2:682-683 exposure assessment, 2:683 guidelines of exposure, 2:683 production and use, 2:683 toxic effects, 2:683 N,N-Dimethyl-4-aminoazobenzene. See 4-Dimethylaminoazobenzene 4-Dimethylaminoazobenzol. See 4-Dimethylaminoazobenzene N,N-Dimethyl-4-amino benzaldehyde. See p-(Dimethylamino) benzaldehyde p-Dimethylaminobenzaldehyde, 3:710 p-(Dimethylamino)benzaldehyde, 3:713 chemical and physical properties, 3:713 p-Dimethylaminobenzaldehyde crystalline. See p-(Dimethylamino)benzaldehyde Dimethylaminobenzene. See N,N-Dimethylaniline; Xylidines 2,4-Dimethylaminobenzene. See 2,4-Xylidine 2-Dimethylaminoethanol. See Dimethylethanolamine N,N-Dimethylaminoethanol. See Dimethylethanolamine 1-Dimethylaminopropan-2-ol. See Dimethylisopropanolamine 1-Dimethylamino-2-propanol. See Dimethylisopropanolamine Dimethylamino-2-propanol. See Dimethylisopropanolamine 3-Dimethylaminopropionitrile chemical and physical properties, 2:950t-951t, 2:974 experimental studies, 2:974 exposure standards, 2:975 human experience, 2:975 pharmacokinetics, metabolism, and mechanisms, 2:974-975 production and use, 2:974 toxic effects, 2:974-975 Dimethylaniline. See N,N-Dimethylaniline; Xylidines 2,4-Dimethylaniline. See 2,4-Xylidine 2,5-Dimethylaniline. See 2,5-Xylidine 2,6-Dimethylaniline. See 2,6-Xylidine N,N-Dimethylaniline, 2:553, 2:624 chemical and physical properties, 2:553, 2:624 exposure assessment, 2:553, 2:624 guidelines of exposure, 2:553, 2:625 production and use, 2:553, 2:624 toxic effects, 2:553, 2:624-625 2,6-Dimethylaniline, o-xylidine. See 2,5-Xylidine Dimethylarsinic acid (DMA), 1:477, 1: 479, 1:482–486 7,12-Dimethylbenzanthracene. See Benz[a]anthracene 7,12-Dimethyl-1,2-benzanthracene. See Benz[a]anthracene N,N-Dimethylbenzenamine. See N,N-Dimethylaniline Dimethylbenzene. See Xylenes Dimethyl p-benzenedicarboxylate. See Dimethyl terephthalate Dimethyl benzidine. See 3,3'-Dimethylbenzidine 3,3'-Dimethylbenzidine, 2:586, 2:675 chemical and physical properties, 2:586, 2:675
exposure assessment, 2:586, 2:676 guidelines of exposure, 2:586, 2:676 production and use, 2:586, 2:675-676 toxic effects, 2:586, 2:676 Di-2-methylbenzoyl peroxide, 4:542 chemical and physical properties, 4:543 exposure assessment, 4:543 production and use, 4:543 toxic effects, 4:543 Di-(o-methylbenzoyl) peroxide. See Di-2-methylbenzoyl peroxide α, α -Dimethylbenzyl hydroperoxide. See Isopropylbenzene hydroperoxide 3,3'-Dimethyl-1,1'-biphenyl-4,4'-diamine. See 3,3'-Dimethylbenzidine 3,3'-Dimethylbiphenyl-4,4'-diamine. See 3,3'-Dimethylbenzidine 3,3'-Dimethyl-4,4'-biphenyldiamine. See 3,3'-Dimethylbenzidine 2,5-Dimethyl-2,5-bis(tert-butylperoxy) hexane. See 2,5-Dimethyl-2,5-di-(t-butylperoxy)hexane 1,1-Dimethylbutane. See 2-Methylpentane 2,2-Dimethylbutane chemical and physical properties, 2:21 exposure assessment, 2:21 exposure guidelines, 2:22 production and use, 2:21 toxic effects, 2:21-22 2,3-Dimethylbutane chemical and physical properties, 2:22 exposure assessment, 2:22 guidelines of exposure, 2:23 toxic effects, 2:22 2,2-Dimethylbutanol. See 2,2-Dimethyl-1-butanol 2,2-Dimethyl-1-butanol, 3:969 chemical and physical properties, 3:969 exposure assessment, 3:969 guidelines of exposure, 3:970 production and use, 3:969 toxic effects experimental methods, 3:969-970 3,3-Dimethyl-2-butanol, 3:969 3,3-Dimethylbutan-2-ol. See 3,3-Dimethyl-2-butanol 3,3-Dimethyl-2-butanol. See 3,3-Dimethyl-2-butanol Dimethyl cis-butenedioate. See Dimethyl maleate 1,3-Dimethylbutyl acetate. See sec-Hexyl acetate Dimethylbutylamine, 2:465 chemical and physical properties, 2:466 exposure assessment, 2:466 guidelines of exposure, 2:466 production and use, 2:466 toxic effects, 2:466 N,N-Dimethylbutylamine. See Dimethylbutylamine Di-(3-methylbutyl) peroxydicarbonate, 4:535 chemical and physical properties, 4:535 exposure assessment, 4:535 production and use, 4:535 toxic effects, 4:535 Dimethylcarbamoyl-1-methylvinyl dimethylphosphate. See Dicrotophos Dimethyl carbinol. See Isopropanol Dimethyl carbonate, 4:355

chemical and physical properties, 4:355 odor and warning properties, 4:355 toxic effects, 4:355 acute toxicity, 4:355 human experience, 4:357 reproductive and developmental, 4:355, 4:357 Dimethyl cellosolve. See Ethylene glycol dimethyl ether Dimethyl cellosolve phthalate. See Dimethoxyethyl phthalate Dimethyl chloroether. See Chloromethyl methyl ether Dimethyl(β-chloroethyl)amine (hydrochloride) carcinogenesis, 2:722 chemical and physical properties, 2:721 environmental impact studies, 2:722 exposure assessment, 2:721 exposure standards, 2:722 genetic and cellular effects, 2:722 pharmacokinetics, metabolism, and mechanisms, 2:722 production and use, 2:721 reproductive and developmental effects, 2:722 toxic effects acute toxicity, 2:722 experimental studies, 2:722 human experience, 2:722 subchronic and chronic toxicity, 2:722 2,4-Dimethylcrotonaldehyde. See Methyl-β-ethylacrolein Dimethyl cyanamide production and use, 2:960 toxic effects, 2:960 1,1-Dimethylcyclohexane, 2:113 1,2-Dimethylcyclohexane, 2:113 1,3-Dimethylcyclohexane, 2:113 1,4-Dimethylcyclohexane, 2:113 cis-1,2-Dimethylcyclohexane, 2:113 cis-1,3-Dimethylcyclohexane, 2:113 cis-1,4-Dimethylcyclohexane, 2:113 trans-1,2-Dimethylcyclohexane, 2:113 trans-1,3-Dimethylcyclohexane, 2:113 trans-1,4-Dimethylcyclohexane, 2:113 Dimethylcyclohexylamine, 2:481 chemical and physical properties, 2:481 exposure assessment, 2:481 guidelines of exposure, 2:481 production and use, 2:481 toxic effects, 2:481 N,N-Dimethylcyclohexylamine. See Dimethylcyclohexylamine 3,3'-Dimethyl-4,4'-diaminodiphenylmethane. See 4,4'-Methylenebis(2-methylaniline) Dimethyl-1,2-dibromo-2,2-dichloroethyl phosphate. See Naled 2,5-Dimethyl-2,5-di-(t-butylperoxy)hexyne-3, 4:568 chemical and physical properties, 4:568 exposure assessment, 4:568 toxic effects, 4:568-569 O,O-Dimethyl S-(1,2-dicarbethoxyethyl) dithiophosphate. See Malathion O,O-Dimethyl-S(1,2-dicarbethoxyethyl)thiothionophosphate. See Malathion Dimethyl 2,2-dichloroethenyl phosphate. See Dichlorvos

Dimethyldichloro silane, 4:406 chemical and physical properties, 4:406 odor and warning properties, 4:406 production and use, 4:406 standards, regulations, or guidelines of exposure, 4:407 toxic effects, 4:406 acute toxicity, 4:406 genetic and related cellular effects studies, 4:406, 4:407 human experience, 4:407 pharmacokinetics, metabolism, and mechanisms, 4:406 Dimethyl 2,2-dichlorovinyl phosphate. See Dichlorvos O,O-Dimethyl dichlorovinyl phosphate. See Dichlorvos O,O-Dimethyl 2,2-dichlorovinyl phosphate. See Dichlorvos O,O-Dimethyl O-2,2-dichlorovinyl phosphate. See Dichlorvos O,O-Dimethyl-O-2,2-dichlorvinyl dimethyl phosphate. See Dichlorvos Dimethyldiethoxysilan. See Dimethyldiethoxy silane Dimethyldiethoxy silane, 4:410 chemical and physical properties, 4:410 odor and warning properties, 4:410 toxic effects, 4:410 acute toxicity, 4:410 experimental studies, 4:410 human experience, 4:410 2,5-Dimethyl-2,5-di-(2-ethylhexanoylperoxy) hexane, 4:556 chemical and physical properties, 4:556 exposure assessment, 4:556 toxic effects, 4:557 O,O-Dimethyl S-(2,3-dihydro-5-methoxy-2-oxo-1,3,4-thiadiazol-3-ylmethyl) phosphorodithioate. See Methidathion 3,5-Dimethyl-3,5-dihydroxy-1,2-dioxolone, 4:562 chemical and physical properties, 4:562 exposure assessment, 4:562 toxic effects, 4:562 Dimethyl diketone. See Diacetyl O,O-Dimethyl-O-(3-dimethylamino-1-methyl-3-oxo-1-propenyl) phosphate. See Dicrotophos Dimethyl cis-2-dimethylcarbamoyl-1-methylvinyl phosphate. See Dicrotophos Dimethyl O-(N,N-dimethylcarbamoyl-1-methylvinyl) phosphate. See Dicrotophos 2,2-Dimethyl-, 1,1-dimethylethyl ester. See t-Butyl peroxypivalate 3,3'-Dimethyl-4,4'-diphenyldiamine. See 3,3'-Dimethylbenzidine Dimethyl disulfide, 4:1059 animal and human studies, 4:1059 chemical and physical properties, 4:1059 2,5-Dimethyl-2,5-di-(t-butylperoxy)hexane, 4:566 chemical and physical properties, 4:568 exposure assessment, 4:569 toxic effects, 4:569 2,5-Dimethyl-2,5-di-(tertiary-butylperoxy)-hexane. See 2,5-Dimethyl-2,5-di-(t-butylperoxy)hexane O,O-Dimethyldithiophosphate diethyl mercaptosuccinate. See Malathion Dimethyl dithiophosphate of diethyl mercaptosuccinate. See Malathion O,O-Dimethyl dithiophosphate of diethyl mercaptosuccinate. See Malathion Dimethylenediamine. See Ethylenediamine

Dimethylene oxide. See Ethylene oxide 1,1-Dimethyl ester. See t-Butyl peroxyacetate O,S-Dimethyl ester. See Acephate Dimethylester kyseliny isoftalove. See Dimethyl terephthalate Dimethylester kyseliny maleinove [Czech]. See Dimethyl maleate Dimethylester kyseliny tereftalove. See Dimethyl terephthalate 1,1-Dimethylethane. See 2-Methylpropane Dimethyl ethanedioate. See Dimethyl oxalate Dimethylethanol. See tert-Butyl alcohol 1,1-Dimethylethanol. See tert-Butyl alcohol Dimethylethanolamine, 2:499 chemical and physical properties, 2:500 guidelines of exposure, 2:500 production and use, 2:500 toxic effects, 2:500 N,N-Dimethylethanolamine. See Dimethylethanolamine 1,1-Dimethylethene. See 2-Methylpropene Dimethyl ether, 3:597 chemical and physical properties, 3:598 exposure assessment, 3:598 toxic effects, 3:598 experimental studies, 3:598-599 2-(1,1-Dimethylethoxy)ethanol. See Ethylene glycol mono-tertbutyl ether [2-(1,1-Dimethylethoxy)methylethoxy] propanol. See Dipropylene glycol mono-tertiary-butyl ether 1,1-Dimethylethylamine. See tert-Butylamine Dimethylethylbenzene. See tert-Butylbenzene Dimethyl ethyl carbinol. See tert-Amyl alcohol 1,1-Dimethylethylene. See 2-Methylpropene Dimethyl cis-ethylenedicarboxylate. See Dimethyl maleate 2,3-Dimethylethylene oxide. See 2,3-Butylene oxide 1,1-Dimethyl ethyl hydroperoxide. See t-Butyl hydroperoxide 4-(1,1-Dimethylethyl)phenol. See p-tert-Butylphenol [4-(1,1-Dimethylethyl)phenoxy]methyl oxirane. See p-(t-Butyl) phenyl glycidyl ether O-[2-(1,1-Dimethylethyl)-5-pyrimidinyl]. See Phostebupirim S-(((1,1-Dimethylethyl)thio)methyl)-O, O-diethyl phosphorodithioate. See Terbufos Dimethyl formaldehyde. See Acetone Dimethylformamide, 2:894 chemical and physical properties, 2:894 environmental impact, studies, 2:901 exposure assessment, 2:894-895 guidelines of exposure, 2:901 production and use, 2:894 toxic effects carcinogenesis, 2:899 cellular effects studies, 2:899 chronic and subchronic, 2:895-896 experimental studies, 2:895 human experience, 2:900-901 pharmacokinetics, metabolism, and mechanisms, 2:896-897 reproductive and developmental, 2:898-899 N,N-Dimethylformamide. See Dimethylformamide Dimethyl glycol phthalate. See Dimethoxyethyl phthalate Dimethylglyoxal. See Diacetyl 2,6-Dimethyl-2-heptanol, 4:14 chemical and physical properties, 4:14

production and use, 4:14 toxic effects, 4:14 acute toxicity, 4:14, 4:15 chronic and subchronic toxicity, 4:15 clinical cases, 4:15 experimental studies, 4:14 genetic and related cellular effects studies, 4:15 human experience, 4:15 reproductive and developmental toxicity, 4:15 2,6-Dimethyl-4-heptanol, 4:14 2,6-Dimethyl-4-heptanone. See Diisobutyl ketone 2,6-Dimethylheptan-4-one. See Diisobutyl ketone 4,6-Dimethyl-2-heptanone. See Diisobutyl ketone Dimethyl heptyladipate. See Diisooctyl adipate Dimethyl hexanedioate. See Dimethyl adipate 1,6-Dimethylhexanedioate. See Dimethyl adipate 1,1-Dimethylhydrazine, 2:878 chemical and physical properties, 2:878 environmental impact, studies, 2:881 exposure assessment, 2:878 guidelines of exposure, 2:881 production and use, 2:878 toxic effects, 2:878-881 1,2-Dimethylhydrazine, 2:881 chemical and physical properties, 2:882 environmental impact, studies, 2:885 exposure assessment, 2:882 guidelines of exposure, 2:885 production and use, 2:882 toxic effects, 2:882-885 N,N-Dimethylhydrazine. See 1,1-Dimethylhydrazine N,N-Dimethyl-2-hydroxyethylamine. See Dimethylethanolamine O,O-Dimethyl-(1-hydroxy-2,2, 2-trichloro)ethyl phosphate. See Trichlorfon Dimethyl 1-hydroxy-2,2,2-trichloroethyl phosphonate. See Trichlorfon O,O-Dimethyl 1-hydroxy-2,2,2-trichloroethylphosphonate. See Trichlorfon 3,4-Dimethyl-3H-imidazo[4,5-f]quinolin-2-amine. See 2-Amino-3,4-dimethylimidazo[4,5-f]quinoline Dimethylisopropanolamine, 2:505 chemical and physical properties, 2:506 guidelines of exposure, 2:506 production and use, 2:506 toxic effects, 2:506 N,N-Dimethylisopropanolamine. See Dimethylisopropanolamine Dimethyl itaconate, 4:257 chemical and physical properties, 4:257 toxic effects, 4:257 carcinogenesis, 4:257 chronic and subchronic toxicity, 4:257 genetic and related cellular effects studies, 4:257 Dimethylketal. See Acetone Dimethylketol. See Acetoin Dimethyl ketone. See Acetone Dimethyl maleate, 4:244 chemical and physical properties, 4:244, 4:247 production and use, 4:247 toxic effects, 4:247

chronic and subchronic toxicity, 4:247 experimental studies, 4:247 genetic and related cellular effects studies, 4:247 neurological, pulmonary, skin sensitization, 4:247 Dimethyl malonate, 4:217 chemical and physical properties, 4:217, 4:218 production and use, 4:218 toxic effects, 4:218 acute toxicity, 4:218 chronic and subchronic toxicity, 4:218 experimental studies, 4:218 genetic and related cellular effects studies, 4:218 human experience, 4:218 neurological, pulmonary, skin sensitization, 4:218 reproductive and developmental, 4:218 N,N-Dimethylmethanamine. See Trimethylamine Dimethylmethane. See Propane O,O-Dimethyl S-(N-methylcarbamoylmethyl) phosphorodithioate. See Dimethoate 2,2-Dimethyl-3-methylenebicyclo [2.2.1]heptane. See Camphene 2,2-Dimethyl-3-methylenenorbornane. See Camphene 3,3-Dimethyl-2-methylenenorcamphane. See Camphene 3,3-Dimethyl-2-methylenenorcamphone. See Camphene Dimethyl1-methyl-3-(N,N-dimethylamino)-3-oxo-1-propenyl phosphate, (E). See Dicrotophos 2-[3,5-Dimethyl-1-(2-methylpropyl)hexyloxy]ethanol. See Ethylene glycol mono-2,6,8-trimethyl-4-nonyl ether N,N-Dimethyl-N-ethanolamine. See Dimethylethanolamine Dimethylnitromethane. See 2-Nitropropane Dimethyl p-nitrophenyl monothiophosphate. See Methyl parathion O,O-Dimethyl O-(p-nitrophenyl) phosphorothioate. See Methyl parathion Dimethyl 4-nitrophenyl phosphorothionate. See Methyl parathion O,O-Dimethyl O-(p-nitrophenyl) thionophosphate. See Methyl parathion Dimethyl p-nitrophenyl thionophosphate. See Methyl parathion O,O-Dimethyl O-p-nitrophenyl thiophosphate. See Methyl parathion Dimethyl O-p-nitrophenyl thiophosphate. See Methyl parathion Dimethylnitrosamine, 2:861. See also N-Nitrosodimethylamine chemical and physical properties, 2:861 environmental impact, studies, 2:864 exposure assessment, 2:861 guidelines of exposure, 2:864 production and use, 2:861 toxic effects, 2:862-864 3,7-Dimethyl-1,6-octadien-3-yl β-phenylacrylate. See Linayl cinnamate 3,7-Dimethyl-1,6-octadien-3-yl cinnamate. See Linayl cinnamate 3,7-Dimethyl-1,6-octadien-3-yl 3-phenylpropenoate. See Linayl cinnamate 3,7-Dimethyl-1-octanol, 4:18 chemical and physical properties, 4:18 production and use, 4:18 toxic effects, 4:18 acute toxicity, 4:18 clinical cases, 4:18 experimental studies, 4:18

3,7-Dimethyl-6-octenal. See Citronella

3,7-Dimethyl-6-octen-1-al. See Citronella Dimethyl O-(1,2-dibromo-2,2-dichloroethyl) phosphate. See Naled Dimethylol urea. See Urea-formaldehyde resins Dimethyl oxalate, 4:210 chemical and physical properties, 4:210 toxic effects, 4:210 O,O-Dimethyl-S-((4-oxo-1,2,3-benzotriazin-3(4H)-yl)methyl) phosphordithioate. See Azinphos-methyl O,O-Dimethyl 1-oxy-2,2,2-trichloroethyl phosphonate. See Trichlorfon Dimethyl parathion. See Methyl parathion 2,3-Dimethyl-1-pentanol, 4:4 chemical and physical properties, 4:4 toxic effects, 4:4 acute toxicity, 4:4 experimental studies, 4:4 genetic and related cellular effects studies, 4:4 2,4-Dimethyl-3-pentanone. See Diisopropyl ketone 1,4-Dimethylphenanthrene, 5:411 chemical and physical properties, 5:412 exposure assessment, 5:412 guidelines of exposure, 5:412 production and use, 5:412 toxic effects, 5:412 2,6-Dimethylphenol homopolymer. See Polyphenylene oxidebased resin Dimethylphenylamine. See N,N-Dimethylaniline 2,4-Dimethylphenylamine. See 2,4-Xylidine 2,5-Dimethylphenylamine. See 2,5-Xylidine N,N-Dimethylphenylamine. See N,N-Dimethylaniline N,N-Dimethyl-4-(phenylazo) benzenamine. See 4-Dimethylaminoazobenzene Dimethyl phosphate ester with 3-hydroxy-N,N-dimethyl-ciscrotonamide. See Dicrotophos O,O-Dimethyl 1 (2,2,2-trichloro-1-hydroxyethyl)-phosphonate. See Trichlorfon O,O-Dimethyl phosphorodithioate ester of diethyl mercaptosuccinate. See Malathion O,O-Dimethyl phosphorodithioate S-ester with N-(mercaptomethyl-phthalimide. See Phosmet Dimethyl phosphorodithioate of diethyl mercaptosuccinate. See Malathion Dimethyl phthalate, 4:263 chemical and physical properties, 4:263 exposure assessment, 4:263 odor and warning properties, 4:263 production and use, 4:263 standards, regulations, or guidelines of exposure, 4:265 studies on environmental impact, 4:265 toxic effects, 4:263 acute toxicity, 4:263, 4:264 carcinogenesis, 4:264 chronic and subchronic toxicity, 4:264 experimental studies, 4:263 genetic and related cellular effects studies, 4:264, 4:265 human experience, 4:265 neurological, pulmonary, skin sensitization, 4:265 pharmacokinetics, metabolism, and mechanisms, 4:264 reproductive and developmental, 4:264

Dimethyl 4-phthalate. See Dimethyl terephthalate Dimethyl p-phthalate. See Dimethyl terephthalate Dimethylphylamine. See N,N-Dimethylaniline Dimethylpoly-siloxane. See Polydimethyl silicones Dimethylpolysiloxane hydrolyzate. See Silicones 2,2-Dimethylpropane, 2:23 chemical and physical properties, 2:23 exposure assessment, 2:23 exposure guidelines, 2:24 production and use, 2:23 toxic effects, 2:23 2,2-Dimethylpropane diacrylate. See 2,2-Dimethyl-1,3propanediol diacrylate Dimethyl propanedioate. See Dimethyl malonate Dimethyl 1,3 -propanedioate. See Dimethyl malonate 2,2-Dimethylpropanediol diacrylate. See 2,2-Dimethyl-1,3propanediol diacrylate 2,2-Dimethyl-1,3-propanediol diacrylate, 4:848 chemical and physical properties, 4:848 toxic effects, 4:848-849 2,2-((Dimethyl-1,3-propanediyl)bis(oxymethylene)) bisoxirane. See Neopentyl glycol diglycidyl ether 2,2'-((2,2-Dimethyl-1,3-propanediyl)bis(oxymethylene))bisoxirane. See Neopentyl glycol diglycidyl ether 2,2-Dimethylpropanol. See 2,2-Dimethyl-1-propanol 2,2-Dimethyl-1-propanol, 3:958 2,2-Dimethylpropan-1-ol. See 2,2-Dimethyl-1-propanol 2,2-Dimethyl-1-propanol chemical and physical properties, 3:958 exposure assessment, 3:958 guidelines of exposure, 3:960 production and use, 3:958 toxic effects experimental studies, 3:958-959 human experience, 3:959-960 Dimethylpropylmethane. See 2-Methylpentane α, α -Dimethylpyridine. See Di- and Trimethylpyridines O,O-Dimethyl-S-(1,2-dicarbethoxyethyl)-phosphorodithioate. See Malathion O,O-Dimethyl-S-2-(ethylsulfinyl) ethyl phosphorothioate. See Oxydemeton methyl Dimethyl silicone. See Polydimethyl silicones O,O-Dimethyl S-(phthalimidomethyl) dithiophosphate. See Phosmet Dimethyl sulfide animal and human studies, 4:1058 chemical and physical properties, 4:1058 Dimethyl sulfone animal and human studies, 4:1061-1062 chemical and physical properties, 4:1061 Dimethyl sulfoxide reductases (DMSOR), 1:582 Dimethyl terephthalate, 4:315 chemical and physical properties, 4:315 production and use, 4:315 standards, regulations, or guidelines of exposure, 4:317 toxic effects, 4:315 acute toxicity, 4:315 carcinogenesis, 4:317 chronic and subchronic toxicity, 4:315-4:316

experimental studies, 4:315 genetic and related cellular effects studies, 4:317 human experience, 4:317 neurological, pulmonary, skin sensitization, 4:317 pharmacokinetics, metabolism, and mechanisms, 4:316, 4:317 reproductive and developmental, 4:317 Dimethyl terephthalate 1,4-butanediol polymer. See Polybutylene terephthalate (PBT) Dimethyl tetrahydrophthalate, 4:319 toxic effects, 4:320 experimental studies, 4:320 Dimethyl trichlorohydroxyethyl phosphonate. See Trichlorfon 1,5-Dimethyl-1-vinyl-4-hexenyl cinnamate. See Linayl cinnamate 1,5-Dimethyl-1-vinyl-4-hexen-1-yl cinnamate. See Linayl cinnamate 1,2,5,6-Dinaphthacridine. See Dibenzacridines peri-Dinaphthalene. See Perylene DINCH. See Diisononyl cyclohexanoate 1,2-Dinitrate. See Propylene glycol dinitrate 1,3-Dinitrato-2,2-bis(nitratomethyl)propane. See Pentaerythritol tetranitrate 1.2-Dinitrobenzene, 2:532 chemical and physical properties, 2:532 exposure assessment, 2:532 guidelines of exposure, 2:533 production and use, 2:532 toxic effects, 2:533 1.3-Dinitrobenzene, 2:533 chemical and physical properties, 2:533 exposure assessment, 2:533 guidelines of exposure, 2:533 production and use, 2:533 toxic effects, 2:533 1,4-Dinitrobenzene, 2:533 chemical and physical properties, 2:534 exposure assessment, 2:534 guidelines of exposure, 2:534 production and use, 2:534 toxic effects, 2:534 2,4-Dinitrobenzene. See 1,3-Dinitrobenzene *m*-Dinitrobenzene. See 1.3-Dinitrobenzene o-Dinitrobenzene. See 1,2-Dinitrobenzene p-Dinitrobenzene. See 1,4-Dinitrobenzene Dinitrobenzol. See 1,3-Dinitrobenzene 1,2-Dinitrobenzol. See 1,2-Dinitrobenzene 1,3-Dinitrobenzol. See 1,3-Dinitrobenzene Dinitrochlorobenzene. See 1-Chloro-2,4-dinitrobenzene 1.2-Dinitro-4-chlorobenzene. See 1-Chloro-3.4-dinitrobenzene: 4-Chloro-1,2-dinitrobenzene 1,3-Dinitro-4-chlorobenzene. See 1-Chloro-2,4-dinitrobenzene 2,4-Dinitrochlorobenzene. See 1-Chloro-2,4-dinitrobenzene 2,4-Dinitro-1-chlorobenzene. See 1-Chloro-2,4-dinitrobenzene 3,4-Dinitrochlorobenzene. See 1-Chloro-3,4-dinitrobenzene; 4-Chloro-1.2-dinitrobenzene Dinitrocresol. See 4,6-Dinitro-o-cresol 2,4-Dinitro-o-cresol. See 4,6-Dinitro-o-cresol 2,6-Dinitro-p-cresol, 2:541 chemical and physical prop, 2:542 guidelines of exposure, 2:542

production and use, 2:542 toxic effects. 2:542 4,6-Dinitro-o-cresol, 2:541 chemical and physical properties, 2:541 exposure assessment, 2:541 guidelines of exposure, 2:541 production and use, 2:541 toxic effects, 2:541 Dinitro-o-cresol. See 4,6-Dinitro-o-cresol 3,5-Dinitro-2-hydroxytoluene. See 4,6-Dinitro-o-cresol 3,5-Dinitro-6-hydroxy-toluene. See 4,6-Dinitro-o-cresol Dinitrol. See 4,6-Dinitro-o-cresol 1,2-Dinitro-4-methylbenzene. See 3,4-Dinitrotoluene 1,3-Dinitro-2-methylbenzene. See 2,6-Dinitrotoluene 2,4-Dinitro-6-methylphenol. See 4,6-Dinitro-o-cresol 2,3-Dinitrophenol, 2:537 chemical and physical properties, 2:537 guidelines of exposure, 2:537 production and use, 2:537 toxic effects, 2:537 2,4-Dinitrophenol, 2:537 chemical and physical properties, 2:538 guidelines of exposure, 2:538 production and use, 2:538 toxic effects, 2:538 2,5-Dinitrophenol, 2:538 chemical and physical properties, 2:538 guidelines of exposure, 2:538 production and use, 2:538 toxic effects, 2:538 2,6-Dinitrophenol, 2:538 chemical and physical properties, 2:539 guidelines of exposure, 2:539 production and use, 2:539 toxic effects. 2:539 3,4-Dinitrophenol chemical and physical properties, 2:539 guidelines of exposure, 2:539 production and use, 2:539 toxic effects, 2:539 3,5-Dinitrophenol, 2:539 chemical and physical properties, 2:539 guidelines of exposure, 2:540 production and use, 2:540 toxic effects, 2:540 α -Dinitrophenol. See 2,4-Dinitrophenol β-Dinitrophenol. See 2,6-Dinitrophenol Dinitrophenols. See 2,4-Dinitrophenol Dinitrophenylmethane. See Dinitrotoluene Dinitrosol. See 4,6-Dinitro-o-cresol Dinitrotoluene, 2:545. See also Dinitrotoluene exposure assessment, 2:546 guidelines of exposure, 2:546 2.3-Dinitrotoluene, 2:549 2,4-Dinitrotoluene, 2:546 chemical and physical properties, 2:546 guidelines of exposure, 2:547 production and use, 2:546 toxic effects, 2:546-547

2,5-Dinitrotoluene, 2:549 2.6-Dinitrotoluene, 2:547 chemical and physical properties, 2:547 production and use, 2:547 toxic effects, 2:547 3,4-Dinitrotoluene, 2:549 3,5-Dinitrotoluene, 2:548 chemical and physical properties, 2:548 production and use, 2:548 toxic effects, 2:548-549 Dinitrotoluene mixture. See Dinitrotoluene Dinitrotoluol. See 2,4-Dinitrotoluene 2,4-Dinitrotoluol. See 2,4-Dinitrotoluene Dinofan. See 2,4-Dinitrophenol n-Dinonyl phthalate, 4:285 chemical and physical properties, 4:286 production and use, 4:286 toxic effects, 4:286 experimental studies, 4:286 Di-n-nonyl phthalate. See n-Dinonyl phthalate DINP. See Diisononyl phthalate Di-n-octanoyl peroxide, 4:546 chemical and physical properties, 4:547 exposure assessment, 4:547 production and use, 4:547 toxic effects, 4:547 Dioctyl adipate. See Di(2-ethylhexyl) adipate *n*-Dioctyl adipate, **4:**232 chemical and physical properties, 4:232 production and use, 4:232 toxic effects, 4:232 chronic and subchronic toxicity, 4:232 experimental studies, 4:232 Di-n-octyl adipate. See n-Dioctyl adipate Dioctylamine, 2:473 guidelines of exposure, 2:474 production and use, 2:474 toxic effects, 2:474 Di-n-octylamine. See Dioctylamine Dioctyl azelate. See Di(2-ethylhexyl) azelate Dioctyl decanedioate. See n-Dioctyl sebacate Dioctyl ester hexanedioic acid. See n-Dioctyl adipate Dioctyl ester of sodium sulfosuccinate. See Dioctyl sodium sulfosuccinate Dioctyl ester of sodium sulfosuccinic acid. See Dioctyl sodium sulfosuccinate Dioctyl fumarate. See Di(2-ethylhexyl) fumarate Dioctyl hexanedioate. See n-Dioctyl adipate Dioctylisophthalate. See Di(2-ethylhexyl) isophthalate Dioctyl maleate. See Di(2-ethylhexyl) maleate n-Dioctyl phthalate, 4:277 chemical and physical properties, 4:278 Dioctyl phthalate (DOP). See Di(2-ethylhexyl) phthalate Dioctyl sebacate. See Di(2-ethylhexyl) sebacate Di-n-octyl sebacate. See n-Dioctyl sebacate n-Dioctyl sebacate, 4:240 chemical and physical properties, 4:241 exposure assessment, 4:241 production and use, 4:241

toxic effects, 4:241 Dioctyl sodium sulfonsuccinate. See Dioctyl sodium sulfosuccinate Dioctyl sodium sulfosuccinate, 4:222. See Dioctyl sodium sulfosuccinate chemical and physical properties, 4:223 odor and warning properties, 4:223 production and use, 4:223 toxic effects, 4:223 acute toxicity, 4:223 chronic and subchronic toxicity, 4:223 experimental studies, 4:223 human experience, 4:224 neurological, pulmonary, skin sensitization, 4:224 pharmacokinetics, metabolism, and mechanisms, 4:223, 4:224 reproductive and developmental, 4:224 Dioctyl succinate. See Di(2-ethylhexyl) succinate Dioctyl sulfosuccinate sodium. See Dioctyl sodium sulfosuccinate Dioctyl terephthalate. See Di(2-ethylhexyl) terephthalate Di-n-octyltin chloride (DOTC), 1:368 Dioform. See cis-/ trans-1,2-Dichloroethylene Diolamine. See Diethanolamine Diol 14b. See 1,4-Butanediol DIOP. See Diisooctyl phthalate Diothene. See Polyethylene 1,3-Dioxacyclopentan-2-one. See Ethylene carbonate 2,5-Dioxahexane. See Ethylene glycol dimethyl ether Dioxane, 4:717 chemical and physical properties, 4:717-719 exposure assessment, 4:719 guidelines of exposure, 4:725 inhalation exposure, international standards and regulations, 4:678t production and use, 4:719 toxic effects experimental studies, 4:719-723 human experience, 4:723-725 1,4-Dioxane. See Dioxane p-Dioxane. See Dioxane 3,6-Dioxaoctane. See Ethylene glycol diethyl ether 3,6-Dioxaoctane-1,8-diol. See Triethylene glycol 3,6-Dioxa-1,8-octanediol. See Triethylene glycol 3,6-Dioxaoctane-1,8-diol. See Triethylene glycol 3,6-Dioxa-1,8-octanediol. See Triethylene glycol 3,6-Dioxaoctane-1,8-diyl diacetate. See Triethylene glycol diacetate Dioxins, 5:2 2,6-Dioxobutane. See Diacetyl 1,3-Dioxolan-2-one. See Ethylene carbonate 1,3-Dioxolan-2-one, 4-methyl-. See Propylene carbonate 2-Dioxolone. See Ethylene carbonate Dioxolone-2. See Ethylene carbonate Dioxopentane. See Glutaraldehyde 2,4-Dioxopentane. See 2,4-Pentanedione 1,4-Dioxybenzene. See Quinone 1,1'-Dioxybiscyclohexanol. See Di(1-hydroxycyclohexyl) peroxide Dioxydicyclohexylidene bis-hydroperoxide. See Di-(1hydroperoxycyclohexyl) peroxide DIPA. See Diisopropanolamine; Diisopropylamine

Dipanol. See Turpentine

Di-2-pentenamine. See Diallylamine Dipentene. See Limonene Dipentylamine. See Di-n-amylamine Dipentyl maleate, 4:250 chemical and physical properties, 4:251 experimental studies, 4:251 acute toxicity, 4:251 toxic effects, 4:251 N,N-Dipentyl-1-pentanamine. See Tri-n-amylamine Diperoxyphthalate de tert-butyl. See Di-t-butyl diperoxyphthalate Di-(2-phenoxyethyl) peroxydicarbonate, 4:536 chemical and physical properties, 4:536 exposure assessment, 4:536 toxic effects, 4:536-537 Diphenyl, 2:233 chemical and physical properties, 2:233 exposure assessment, 2:234 guidelines of exposure, 2:235 production and use, 2:233 toxic effects, 2:234-235 Diphenylamine, 2:582, 2:687 chemical and physical properties, 2:582, 2:687 exposure assessment, 2:583, 2:687 guidelines of exposure, 2:583, 2:688 production and use, 2:583, 2:687 toxic effects, 2:583 experimental studies, 2:687-688 human experience, 2:688 pharmacokinetics, metabolism, and mechanisms, 2.688 N,N-Diphenylamine. See Diphenylamine N,N-Diphenylbenzenamine. See Triphenylamine 1,2-Diphenylbenzene. See Terphenyl 1,3-Diphenylbenzene. See Terphenyl 1,4-Diphenylbenzene. See Terphenyl *m*-Diphenylbenzene. *See* Terphenyl o-Diphenylbenzene. See Terphenyl p-Diphenylbenzene. See Terphenyl Diphenyl Black. See 4-Aminodiphenylamine; p-Aminodiphenylamine Diphenyl Black Base P. See 4-Aminodiphenylamine; p-Aminodiphenylamine 4,4'-Diphenylenediamine. See Benzidine Diphenyleneimine. See Carbazole Diphenylenemethane. See Fluorene Diphenylenimide. See Carbazole Diphenylenimine. See Carbazole Diphenyl ether. See Phenyl ether Diphenylethylene. See Stilbene Diphenylglyoxal peroxide. See Dibenzoyl peroxide Diphenyl ketone. See Benzophenone Diphenylmethane, 2:236 chemical and physical properties, 2:236 production and use. 2:236 4,4'-Diphenylmethanediamine. See 4,4'-Methylenedianiline Diphenylmethanone. See Benzophenone Diphenyl oxide. See Phenyl ether Diphenyl oxide-diphenyl mixture. See Dowtherm A Diphenyl sulfone, 4:1062

Di (2-methoxyethyl) phthalate. See Dimethoxyethyl phthalate DiPK. See Diisopropyl ketone Di-2-propenylamine. See Diallylamine N,N-Di-2-propenyl-2-propen-1-amine. See Triallylamine Diproprionyl peroxide, 4:546 chemical and physical properties, 4:546 exposure assessment, 4:546 production and use, 4:546 toxic effects, 4:546 Dipropyl. See n-Hexane n-Dipropylamine, 2:457 chemical and physical properties, 2:457 exposure assessment, 2:458 guidelines of exposure, 2:458 production and use, 2:458 toxic effects, 2:458 Di-n-Propylamine. See n-Dipropylamine N,N-Dipropylamine. See n-Dipropylamine Di-n-Propyl disulfide animal and human studies, 4:1060 chemical and physical properties, 4:1060 Dipropylene carbonate. See Propylene carbonate Dipropylene glycol, 4:617 chemical and physical properties, 4:617 exposure assessment, 4:617 production and use, 4:617 toxic effects experimental studies, 4:617-618 human experience, 4:618 Dipropylene glycol butoxy ether. See Dipropylene glycol mono-nbutyl ether Dipropylene glycol mono-*n*-butyl ether, **4**:825 chemical and physical properties, 4:825 guidelines of exposure, 4:827 toxic effects experimental studies, 4:825-827 human experience, 4:827 Dipropylene glycol monoethyl ether, 4:822 chemical and physical properties, 4:821t guidelines of exposure, 4:823 toxic effects, **4:**822-823 Dipropylene glycol monomethyl ether, 4:818 chemical and physical properties, 4:818 exposure assessment, 4:818-820 guidelines of exposure, 4:822 production and use, 4:818 toxic effects experimental studies, 4:820-821 human experience, 4:822 Dipropylene glycol monomethyl ether (DPGME). See Dipropylene glycol monomethyl ether Dipropylene glycol monomethyl ether acetate. See Propylene glycol monomethyl ether acetate Dipropylene glycol monopropyl ether, 4:824 chemical and physical properties, 4:824 exposure assessment, 4:824 production and use, 4:824 toxic effects, 4:824-825

Dipropylene glycol mono-tertiary-butyl ether, 4:827 chemical and physical properties, 4:827 exposure assessment, 4:827 guidelines of exposure, 4:830 production and use, 4:827 toxic effects, 4:828-830 Dipropylester kyseliny jantarove [Czech]. See Dipropyl succinate Dipropyl ether. See Propyl ether Di-n-propyl ether. See Propyl ether Di(2-propylheptyl) phthalate, 4:292 chemical and physical properties, 4:292 production and use, 4:292 toxic effects, 4:292 acute toxicity, 4:292 chronic and subchronic toxicity, 4:292, 4:293 experimental studies, 4:292 genetic and related cellular effects studies, 4:293 pharmacokinetics, metabolism, and mechanisms, 4:293 reproductive and developmental, 4:293 Dipropyl ketone. See Di-n-propyl Ketone Di-n-propyl Ketone, 3:860 chemical and physical properties, 3:861 environmental impact, studies, 3:862 exposure assessment, 3:861 guidelines of exposure, 3:862 production and use, 3:861 toxic effects experimental studies, 3:861-862 human experience, 3:862 Dipropylmethane. See n-Heptane Dipropylnitrosamine. See Nitrosodi-n-propylamine Dipropyl oxide. See Propyl ether Di-n-propyl peroxydicarbonate, 4:532 chemical and physical properties, 4:532 exposure assessment, 4:532 production and use, 4:532 toxic effects, 4:532 Dipropyl succinate, 4:220 chemical and physical properties, 4:220 production and use, 4:220 toxic effects. 4:220 acute toxicity, 4:220 experimental studies, 4:220 Di-n-propyl succinate. See Dipropyl succinate Dipyrido(1,2-a:2',1'-c)pyrazinedium, 6,7-dihydro-. See Quaternary herbicides Direct bacterial assay, 2:726 Direct Brown BR. See 1,3-Phenylenediamine Direct Brown GG. See 1,3-Phenylenediamine Direct chemical analysis, 1:392, 1:396 Direct current plasma-atomic emission spectrometry (DCP-AES), 1:516, 1:517 Directorate-General for Employment, Social Affairs, and Equal Opportunities (DG-EMPL), 5:17 Disodium octaborate tetrahydrate, 1:912 chemical and physical properties, 1:912 exposure assessment, 1:912 production and use, 1:912 standards, regulations, or guidelines of exposure, 1:912-913

studies on environmental impact, 1:913 toxic effects, 1:912 Dispasol M. See Polymethyl methacrylate Dissolvant apv. See Diethylene glycol Distillates, petroleum. See Petroleum distillates Disuccinic acid peroxide. See Succinyl peroxide Disuccinoyl peroxide. See Succinyl peroxide Di-tertiarybutyl peroxide. See Di-t-butyl peroxide Ditranil. See 2,6-Dichloro-4-nitroaniline Di-(3,5,5-trimethylhexanoyl) peroxide, 4:547 chemical and physical properties, 4:547 exposure assessment, 4:547 toxic effects, 4:547 Di/Tripropylene glycol ethers, 4:792t Di-/tripropylene glycols ethers physical and chemical properties of, 4:819t Ditrosol. See 4,6-Dinitro-o-cresol n-Diundecyl phthalate, 4:293 chemical and physical properties, 4:294 production and use, 4:294 studies on environmental impact, 4:294 toxic effects, 4:294 acute toxicity, 4:294 chronic and subchronic toxicity, 4:294 experimental studies, 4:294 genetic and related cellular effects studies, 4:294 reproductive and developmental, 4:294 DIUP. See Diisoundecyl phthalate Divinylbenzene chemical and physical properties, 2:229 experimental studies, 2:230 exposure assessment, 2:229-230 guidelines of exposure, 2:231 production and use, 2:229 toxic effects, 2:230-231 Divinylbenzene (m-, p-mixture). See Divinylbenzene Divinylbenzene-HP (high purity). See Divinylbenzene Divinylcarbital. See Diethylene glycol divinyl ether Divinyl ether, 3:613 chemical and physical properties, 3:613 exposure assessment, 3:613 toxic effects, 3:613-614 Divinyl oxide. See Divinyl ether Divinyl sulfone, 4:1062 DL-sec-Butyl acetate. See sec-Butyl acetate DL-sec-phenethyl alcohol. See 1-Phenylethanol DMA. See Dimethylacetamide; Dimethylamine; N,N-Dimethylaniline; Dimethylarsinic acid; 2,5-Xylidine; 2,6-Xylidine DMAC. See Dimethylacetamide DMB. See 3,3'-Dimethylbenzidine DMBA. See Dimethylbutylamine DME. See Ethylene glycol dimethyl ether DMEA. See Dimethylethanolamine D. melanogaster sex-linked recessive lethal assay, 2:757 DMEP. See Dimethoxyethyl phthalate DMF. See Dimethylformamide

DMN. See Dimethylnitrosamine; N-Nitrosodimethylamine

CUMULATIVE SUBJECT INDEX, VOLUMES 1-6 583

DMNA. See Dimethylnitrosamine DMOB. See 3,3'-Dimethoxybenzidine DMPS. See 2,3-Dimercaptopropane-1-sulfonate DMSOR. See Dimethyl sulfoxide reductases DMT. See Dimethyl terephthalate DNA damage, 1:6, 1:7, 1:395, 1:497 damaging capacity, 1:592 fragmentation, 2:748 lesions, 1:528 repair systems, 1:709 repair test, 2:723 replication, 1:731 ethyleneimine effects, 2:707 processes, 1:489 sequencing, 1:798 single strand breaks, 1:670 splitting formation, 1:659 strand breakage, 1:569 structure, 1:405 synthesis, 1:376, 1:452, 2:716, 2:720, 2:757 template, 1:570 thread fragmentation, 1:658 DNA binding/receptor-based interactions, 6:483 DNA damage, 6:449 DNA-DNA adducts, 2:717 DNA-DNA crosslinks, 1:732 DNA-protein cross-binding, 1:658 DNA-protein cross-links, 1:670 DNA repair, 1:10 variability, 6:457 DNBA. See Di-n-butylamine DNC. See 4,6-Dinitro-o-cresol DNCB. See 1-Chloro-2,4-dinitrobenzene DNOC. See 4.6-Dinitro-o-cresol 4,6-DNOC. See 4,6-Dinitro-o-cresol DnOP. See n-Dioctyl phthalate 2,4-DNP. See 2,4-Dinitrophenol DNPA. See n-Dipropylamine 2,6-DNPC. See 2,6-Dinitro-p-cresol DnPK. See Di-n-propyl Ketone DNT. See Dinitrotoluene; 2,4-Dinitrotoluene 2.4-DNT. See 2.4-Dinitrotoluene 2,6-DNT. See 2,6-Dinitrotoluene Doconexent. See Docosahexaenoic acid Docosahexaenoic acid, 3:566 chemical and physical properties, 3:566 guidelines of exposure, 3:568 production and use, 3:566 toxic effects experimental studies, 3:566-568 human experience, 3:568 (4Z,7Z,10Z,13Z,16Z,19Z)-Docosa-4,7,10,13,16,19-hexaenoic acid. See Docosahexaenoic acid (Z)-Docos-13-enoic acid. See Erucic acid Docusate sodique [French]. See Dioctyl sodium sulfosuccinate Docusate sodium. See Dioctyl sodium sulfosuccinate Docusato sodico [Spanish]. See Dioctyl sodium sulfosuccinate Docusatum natricum [Latin]. See Dioctyl sodium sulfosuccinate

Dodecahydrodiphenylamine. See Dicyclohexylamine Dodecamethylene. See Cyclododecane Dodecamethylpentasiloxane, 4:418 chemical and physical properties, 4:418 toxic effects, 4:418 1,1,1,3,3,5,5,7,7,9,9,9-Dodecamethylpentasiloxane. See Dodecamethylpentasiloxane Dodecanamine. See Dodecylamine 1-Dodecanamine. See Dodecylamine Dodecane, 2:43 chemical and physical properties, 2:43-44 exposure assessment, 2:44 guidelines of exposure, 2:44 toxic effects, 2:44 n-Dodecane. See Dodecane Dodecanoic acid. See Lauric acid Dodecanol. See 1-Dodecanol 1-Dodecanol, 4:18 chemical and physical properties, 4:19 odor and warning properties, 4:19 production and use, 4:19 toxic effects. 4:19 acute toxicity, 4:19 carcinogenesis, 4:19 chronic and subchronic toxicity, 4:19 clinical cases, 4:20 experimental studies, 4:19 genetic and related cellular effects studies, 4:19, 4:20 pharmacokinetics, metabolism, and mechanisms, 4:19 reproductive and developmental, 4:19 Dodecan-1-ol. See 1-Dodecanol Dodecanoyl peroxide. See Dilauroyl peroxide Dodecoic acid. See Lauric acid n-Dodecyl alcohol. See 1-Dodecanol Dodecylamine, 2:474 chemical and physical properties, 2:474 exposure assessment, 2:475 guidelines of exposure, 2:475 toxic effects, 2:475 Dodecylester kyseliny gallove [Czech]. See Dodecyl gallate Dodecyl gallate, 4:208 chemical and physical properties, 4:209 production and use, 4:209 standards, regulations, or guidelines of exposure, 4:210 toxic effects, 4:209 acute toxicity, 4:209 carcinogenesis, 4:209 chronic and subchronic toxicity, 4:209 experimental studies, 4:209 genetic and related cellular effects studies, 4:209 human experience, 4:209 neurological, pulmonary, skin sensitization, 4:209 pharmacokinetics, metabolism, and mechanisms, 4:209 reproductive and developmental, 4:209 n-Dodecyl mercaptan, 4:1051 animal and human studies, 4:1051-1052 chemical and physical properties, 4:1051

tert-Dodecyl mercaptan animal and human studies, 4:1053 chemical and physical properties, 4:1053 Dodecylthiophenol, 2:327 toxic effects, 2:328 Dodecyl 3,4,5-trihydroxybenzoate. See Dodecyl gallate DOIP. See Di(2-ethylhexyl) isophthalate Dojyopicrin. See Trichloronitromethane Dolcymene. See o/m/p-Isopropyltoluene Dolochlor. See Trichloronitromethane DOPA. See 3,4-Dihydroxyphenylalanine Dopaminergic system, 1:620 Dormal. See Chloral hydrate Dorsal root ganglia (DRG), 1:727 Dorvon. See Polystyrene Dose-limiting neutropenia, 1:726 Dose-response assessment, 5:98 Dose-response relationship, 1:487 DOTC. See Di-n-octyltin chloride Dow 164. See Polyacrylamide Dow 456. See Polystyrene Dowanol ep. See Ethylene glycol monophenyl ether Dowanol eph. See Ethylene glycol monophenyl ether Dow ET 597. See Polyacrylamide Dowex 50W-X8, 1:457 Dowfrost. See Propylene glycol Dowicide 7. See Pentachlorophenol Dowicide 2S. See 2,4,6-Trichlorophenol Dowpentachlorophenol dp-2 antimicrobial. See Pentachlorophenol Dowtherm A, 3:635 chemical and physical properties, 3:636 exposure assessment, 3:636 guidelines of exposure, 3:637 toxic effects, 3:636-637 D711P. See Di-C7-11-phthalate D911P. See Di-C9-11 phthalate DPA. See Diphenylamine DPBPO. See Decabromodiphenyl oxide DPHP. See Di(2-propylheptyl) phthalate DPNA. See Nitrosodi-n-propylamine DPTA. See Diethylenetriaminepentaacetic acid DPX-43898. See Chlorethoxyphos Draize scoring method, 1:611 Drakeol. See White oils Drosophila sex-linked recessive lethal (SLRL) assay, 1:687 Dry cleaning safety solvent. See Petroleum spirits DSM-III-R major depressive disorder (MDD) prevalence, 6:365f DTBP. See Di-t-butyl peroxide DTDP. See Diisotridecyl phthalate DTH. See Delayed type hypersensitivity Duodecane. See Dodecane Duodecylic acid. See Lauric acid DUP. See n-Diundecyl phthalate Durafur Black R. See 1,4-Phenylenediamine Durafur Brown. See 2-Nitro-1,4-phenylenediamine Durafur Brown 2R. See 2-Nitro-1,4-phenylenediamine Durafur Brown RB. See 4-Aminophenol Duratears. See Paraffins (waxes)

Durene, 2:192 chemical and physical properties, 2:192 environmental impact, studies, 2:195 exposure assessment, 2:192 guidelines of exposure, 2:195 production and use, 2:192 toxic effects, 2:192-195 acute toxicity, 2:192 Durol. See Durene DV 400. See Polymethyl methacrylate Dye GS. See 2-Nitro-1,4-phenylenediamine Dylan. See Polyethylene Dylan-super. See Polyethylene Dylene 8. See Polystyrene Dylite f. See Polystyrene DYME. See Diethylene glycol dimethyl ether Dystrophy of nails, 1:103, 1:311, 1:326, 1:327 EA. See Ethylamine; Monoethanolamine EAA. See Ethyl acetoacetate EAK. See 3-Octanone Earthcide. See Pentachloronitrobenzene EBA. See Ethyl-n-butylamine ECH. See Epichlorohydrin Ech. See Epichlorohydrin E. coli K-12 test, 2:757 ECTFE. See Ethylene chlorotrifluoroethylene copolymer Eczematous dermatitis, 1:532 Eczematous symptoms, 1:705 EDA. See Ethylenediamine Edetic acid. See Ethylenediaminetetraacetic acid Edisol m. See Methyl cellulose EDTA. See Ethylediaminetetraacetic acid; Ethylenediaminetetraacetic acid EDXA. See Energy dispersion X-ray (EDXA) analysis Effective renal plasma flow (ERPF), 1:727 Effusan. See 4,6-Dinitro-o-cresol EGBE. See Ethylene glycol mono-n-butyl ether EGBEA. See Ethlyene glycol mono-n-butyl ether acetate EGdiEE. See Ethylene glycol diethyl ether EGdiME. See Ethylene glycol dimethyl ether EGDME. See Ethylene glycol dimethyl ether EGDN. See Ethylene glycol dinitrate occupational exposure guidelines, 861t EGEEA. See Ethylene glycol monoethyl ether acetate EGiPE. See Ethylene glycol monoisopropyl ether EGMEA. See Ethylene glycol monomethyl ether acetate EGND. See Ethylene glycol dinitrate EGPE. See Ethylene glycol mono-n-propyl ether EGPEA. See Ethylene glycol mono-n-propyl ether acetate EGVE. See Ethylene glycol monovinyl ether EHA. See 2-Ethylhexylamine EHD. See 2-Ethyl-1,3-hexanediol Eh diol. See 2-Ethyl-1,3-hexanediol EHGE. See Ethylhexyl glycidyl ether Ehrlich-ascites tumor cells, 2:719 Ehrlich ascites tumor system, 1:526 Ehrlich's reagent. See p-(Dimethylamino)benzaldehyde EI 3911. See Phorate

Eicosapentaenoic acid, 3:561 chemical and physical properties, 3:561 guidelines of exposure, 3:562 production and use, 3:561 toxic effects experimental studies, 3:561-562 human experience, 3:562 all-cis-5,8,11,14,17-Eicosapentaenoic acid. See Eicosapentaenoic acid all-Z-5,8,11,14,17-Eicosapentaenoic acid. See Eicosapentaenoic acid (5Z,8Z,11Z,14Z,17Z)-Eicosa-5,8,11,14,17-pentenoic acid. See Eicosapentaenoic acid 5,8,11,14-Eicosatetraenoic acid, (all-Z)-. See Arachidonic acid Eicosa-5Z,8Z,11Z,14Z-tetraenoic acid. See Arachidonic acid (Z,Z,Z,Z)-5,8,11,14-Eicosatetraenoic acid. See Arachidonic acid EINECS 200-451-5. See Glyceryl tributyrate EINECS 201-110-3. See Linayl cinnamate EINECS 202-259-7. See Methyl benzoate EINECS 202-284-3. See Ethyl benzoate EINECS 202-294-8. See Resorcinol dibenzoate EINECS 202-303-5. See Ethyl p-aminobenzoate EINECS 202-306-1. See Propyl p-aminobenzoate EINECS 202-307-7. See Propyl paraben EINECS 202-317-1. See Butyl p-aminobenzoate EINECS 202-464-1. See Diethyl oxalate EINECS 202-785-7. See Methyl paraben EINECS 203-022-0. See Resorcinol monoacetate EINECS 203-051-9. See Glyceryl triacetate EINECS 203-091-7. See Di(2-ethylhexyl) azelate EINECS 203-093-8. See Methyl cinnamate EINECS 203-104-6. See Ethyl cinnamate EINECS 203-109-3. See Benzyl cinnamate EINECS 203-305-9. See Diethyl malonate EINECS 203-327-9. See n-Dibutyl fumarate EINECS 203-328-4. See Dibutyl maleate EINECS 203-596-2. See Resorcinol diacetate EINECS 203-597-8. See Dimethyl malonate EINECS 203-672-5. See Dibutyl sebacate EINECS 203-764-5. See Diethyl sebacate EINECS 204-259-2. See Phenyl salicylate EINECS 204-265-5. See Ethyl salicylate EINECS 204-317-7. See Salicylates EINECS 204-399-4. See Ethyl paraben EINECS 204-402-9. See Benzyl benzoate EINECS 204-498-2. See Propyl gallate EINECS 204-558-8. See Di(2-ethylhexyl) sebacate EINECS 204-612-0. See Diethyl succinate EINECS 204-791-5. See Glyceryl trinonanoate EINECS 205-132-4. See Methyl o-aminobenzoate EINECS 205-241-7. See Resorcinol monobenzoate EINECS 205-252-7. See Butyl benzoate EINECS 205-365-1. See Glyceryl tripropionate EINECS 205-448-2. See Di(2-ethylhexyl) fumarate EINECS 205-449-8. See n-Dibutyl succinate EINECS 205-451-9. See Diethyl maleate EINECS 205-524-5. See Di(2-ethylhexyl) maleate EINECS 208-686-5. See Glyceryl trioctanoate EINECS 208-699-6. See n-Butyl cinnamate

EINECS 209-053-6. See Dimethyl oxalate EINECS 209-406-4. See Dioctyl sodium sulfosuccinate EINECS 210-448-0. See Diisopropyl oxalate EINECS 210-519-6. See Dimethyl itaconate EINECS 210-598-7. See Methyl p-aminobenzoate EINECS 210-647-2. See Glyceryl triheptanoate EINECS 210-701-5. See Glyceryl trihexanoate EINECS 210-702-0. See Glyceryl tridecanoate EINECS 210-819-7. See Diethyl fumarate EINECS 210-848-5. See Dimethyl maleate EINECS 212-214-3. See Vinyl benzoate EINECS 212-451-2. See Glutarates EINECS 213-114-2. See Dipropyl succinate EINECS 213-361-6. See Isopropyl benzoate EINECS 213-853-0. See Octyl gallate EINECS 214-620-6. See Dodecyl gallate EINECS 215-546-7. See Diisooctyl fumarate EINECS 217-477-8. See n-Allyl cinnamate EINECS 218-080-2. See Amyl salicylate EINECS 218-092-8. See n-Dibutyl oxalate EINECS 219-411-3. See n-Dioctyl sebacate EINECS 220-836-1. See Di(2-ethylhexyl) succinate EINECS 220-850-8. See Dibutyl azelate EINECS 229-856-5. See Hexyl benzoate EINECS 230-707-1. See Diisopropyl fumarate EINECS 231-916-0. See n-Propyl cinnamate EINECS 233-242-2. See Diisopropyl maleate EINECS 233-243-8. See Dipentyl maleate EINECS 236-935-8. See Glyceryl triundecanoate EINECS 238-224-8. See Glyceryl triisobutyrate EINECS 240-208-0. See n-Dihexyl maleate EINECS 246-941-2. See Glyceryl diacetate EINECS 247-704-6. See Glyceryl monoacetate EINECS 248-333-2. See Diisooctyl sebacate Ektapro EEP solvent. See Ethyl 3-ethoxypropionate Elaidate. See Elaidic acid Elaidic acid, 3:555 chemical and physical properties, 3:555 guidelines of exposure, 3:557 production and use, 3:555 toxic effects experimental studies, 3:555-556 human experience, 3:556-557 Elaldehyde. See Paraldehyde Elastomers, 4:891-892 Elayl. See Ethene Electrical Insulating Oil. See White oils Electrocardiograms, 1:26, 1:530, 1:532, 1:787, 1:1066 Electroencephalogram (EEG) activation in epileptics, 6:362 Electrolysis Department of the Falconbridge, 1:683 Electrolytic refining, 1:362 process, 1:653 Electromagnetic ionizing radiation, 1:1, 1:2 Electromagnetic spectrum, 6:170-171 Electromagnetic waves, 6:109, 6:169 Electron microscopy, 1:359 Electron probe X-ray microanalysis, 1:359 Electrothermal atomic absorption spectroscopy (EAAS), 1:656

Elemental boron, 1:885 chemical and physical properties, 1:906 exposure assessment, 1:906 production and use, 1:906 toxic effects, 1:907 ELF magnetic field standards, 6:123 Elgetol. See 4,6-Dinitro-o-cresol Elgetol 30. See 4,6-Dinitro-o-cresol Elgetox. See 4,6-Dinitro-o-cresol Elvacit. See Polymethyl methacrylate Elvanol. See Polyvinyl alcohol Elvanol 52-22. See Polyvinyl alcohol Elvanol 70-05. See Polyvinyl alcohol EMA. See Ethyl methacrylate Emeressence 1160. See Ethylene glycol monophenyl ether Emersol 120. See Stearic acid Emersol 132. See Stearic acid Emersol 150. See Stearic acid Emersol 153. See Stearic acid Emersol 210. See Oleic acid Emersol 213. See Oleic acid Emersol 6321. See Oleic acid Emersol 6349. See Stearic acid Emersol 23311. See Oleic acid Emery 6705. See Ethylene glycol monophenyl ether Emkapol 200. See Polyethylene glycols Emphysema histological appearance of, 5:307f Empirical dose-response models, 6:483 EN. See Ethylenediamine Enanthal. See n-Heptaldehyde Enanthaldehyde. See n-Heptaldehyde Enanthic acid. See Caprylic acid; Heptanoic acid Enanthic alcohol. See 1-Heptanol Enanthic aldehyde. See n-Heptaldehyde Enanthole. See n-Heptaldehyde Enanthyl alcohol. See 1-Heptanol Enanthylic acid. See Heptanoic acid EnBK. See Ethyl n-butyl ketone Encephalopathy, 1:322 Endocrine disrupting chemicals (EDCs), 6:460 Endogenous circadian timekeeper, 6:338 Endogenous rhythms, 6:335 Endoplasmic reticulum (ER), changes due to administration of Ce, 1:830 Energol. See 4-Aminophenol Energy dispersion X-ray (EDXA) analysis, 1:432, 1:444 Engineered nanomaterials (ENM), 5:169 exposure assessment, 5:173-175 occupational health risk management, 5:176-178 potential health effects of, 5:171-173 types of, 5:169-171 workplace, control of, 5:175-176 workplaces with potential exposure, 5:173f, 5:173t Enriched air nitrox (EANx), 6:307 ENT 27822. See Acephate Entsufon. See 2,4,6-Trinitrotoluene ENU. See N-Ethyl-N-nitrosourea Environmental fate process, 2:726

Environmental Protection Agency (EPA), 1:18, 1:55, 1:118, 1:201, 1:235, 1:382t, 1:484, 1:960, 1:1059, 5:30 guidelines on risk characterization, 5:121t Environmental Radiation Ambient Monitoring Program (ERAMS), 1:775 Environmental rhythms, influences, 6:333 Enzymatic oxidation-reduction processes, 2:957 EO. See Ethylene oxide Eorthcicle. See Pentachloronitrobenzene Eosinophilia, 1:832 EPA. See Environmental Protection Agency EPA Pesticide Chemical Code 009501. See Benzyl benzoate EPA Pesticide Chemical Code 061201. See Methyl paraben EPA Pesticide Chemical Code 061202. See Ethyl paraben EPA Pesticide Chemical Code 061203. See Propyl paraben EPA Pesticide Chemical Code 076601. See Salicylates EPA Pesticide Chemical Code 077802. See n-Dibutyl succinate EPA Pesticide Chemical Code 097001. See Ethyl p-aminobenzoate EPEG. See Ethyl phthalyl ethyl glycolate EPI. See Epichlorohydrin Epichlorohydrin, 4:514, 4:902. See Epichlorohydrin chemical and physical properties, 4:514-515, 4:902 exposure assessment, 4:515 guidelines of exposure, 4:518, 4:903 production and use, 4:515, 4:902 toxic effect, 4:903 toxic effects, 4:515 experimental studies, 4:515-517 human experience, 4:518 α -Epichlorohydrin (ECH). See Epichlorohydrin DL-a-Epichlorohydrin. See Epichlorohydrin Epicure DDM. See 4,4'-Methylenedianiline Epidemiological studies, carcinogenic effects of radiation in humans, 1:14, 1:15 breast cancer in women. 1:15 cancer incidence/death rates, 1:14 leukemia induction, 1:14 lung cancer, 1:15 tumor studies, 1:14 Epididymal hypospermia, 1:271 Epididymal sperm aneuploidy/diploidy assay, 2:769 Epihydrin alcohol. See Glycidol Epihydrinaldehyde. See Glycidaldehyde Epikure DDM. See 4,4'-Methylenedianiline Epolene. See Polyethylene Epoxide compounds, 4:491 Epoxide hydrolase (EH), 4:491, 4:492 1,2-Epoxide 4-vinylcyclohexene monoxide. See Vinylcyclohexene monoxide Epoxidized linseed oil, 4:452 Epoxidized soya bean oil, 4:452 Epoxidized tall oil, 4:452 chemical and physical properties, 4:452 exposure assessment, 4:452 guidelines of exposure, 4:454 production and use, 4:452 toxic effects, 4:452 experimental studies, 4:453 human experience, 4:453-454

Epoxybutane. See 1,2-Butylene oxide 1,2-Epoxybutane. See 1,2-Butylene oxide 2,3-Epoxybutane. See 2,3-Butylene oxide 2,3-Epoxybutane (cis,trans mixture). See 2,3-Butylene oxide Epoxybutene (EB), 6:481 1,2-Epoxy-3-butoxypropane. See n-Butyl glycidyl ether 1,2-Epoxy-3-chloropropane. See Epichlorohydrin Epoxy-3-chloropropane. See Epichlorohydrin 3,4-Epoxycyclohexylmethyl-3,4-epoxycyclohexanecarboxylate, 4:522 chemical and physical properties, 4:522 exposure assessment, 4:523 guidelines of exposure, 4:523 production and use, 4:523 toxic effects, 4:523 1,2-Epoxy-4-(epoxyethyl)cyclohexane. See Vinylcyclohexene dioxide Epoxyethane. See Ethylene oxide 1,2-Epoxyethane. See Ethylene oxide Epoxyethylbenzene. See Styrene oxide 1,2-Epoxyethylbenzene. See Styrene oxide 1-Epoxyethyl-3,4-epoxycyclohexane. See Vinylcyclohexene dioxide 1,2-Epoxy-3-((2-ethylhexyl)oxy)propane. See Ethylhexyl glycidyl ether 3-(1,2-Epoxyethyl)-7-oxabicyclo(4.1.0)heptane. See Vinylcyclohexene dioxide 4-(1,2-Epoxyethyl)-7-oxabicyclo(4.1.0)heptane. See Vinylcyclohexene dioxide 1,2-Epoxy-3-hydroxy propane. See Glycidol 1,2-Epoxy-3-isopropoxypropane. See Isopropyl glycidyl ether (+/-)-1,2-Epoxy-3-phenoxypropane. See Phenyl glycidyl ether 1,2-Epoxy-3-phenoxypropane. See Phenyl glycidyl ether 1,2-Epoxy-1-phenylethane. See Styrene oxide Epoxypropane. See Propylene oxide 1,2-Epoxypropane. See Propylene oxide 2,3-Epoxypropane. See Propylene oxide Epoxypropanol. See Glycidaldehyde 2,3-Epoxypropanol. See Glycidaldehyde; Glycidol 2,3-Epoxy-1-propanol. See Glycidol Epoxypropyl alcohol. See Glycidol 2,3-Epoxypropyl butyl ether. See n-Butyl glycidyl ether Epoxypropyl chloride. See Epichlorohydrin 2,3-Epoxypropyl chloride. See Epichlorohydrin 2-3-Epoxypropyl chloride. See Epichlorohydrin 2,3-Epoxypropyl ester of mixed trialkyl acetic. See Neodecanoic acid, glycidyl ester 2,3-Epoxypropyl isopropyl ether. See Isopropyl glycidyl ether Epoxy resin coating formulations, 4:491 Epoxystyrene. See Styrene oxide 1,2-Epoxy-3-(o-tolyloxy) propane. See Cresyl glycidyl ethers 1,2-Epoxy-4-vinylcyclohexane. See Vinylcyclohexene monoxide Ergonomics, 6:231 biomechanics. 6:233 bone. 6:241 mechanical behavior of bone, 6:242 normal anatomy of bone, 6:241-242 cellular responses to tissue injury, 6:239-241 acute versus chronic, 6:240-241

cellular mediators, 6:240 chemical mediators, 6:239-240 inflammatory response, 6:239 maturation, 6:241 repair, 6:241 vascular events, 6:239 common causes of injury, 6:238t joints, 6:242 hyaline cartilage layers, 6:243f mechanical behavior of joints, 6:243-244 normal anatomy of joints, 6:242-243 synovial joint, 6:242f ligament, 6:244 ligament reaction to injury, 6:245 mechanical behavior of ligaments, 6:245 normal anatomy of ligaments, 6:244-245 muscle, 6:251 calcium homeostasis, 6:252 reaction to injury, 6:251-252 repetitive stress, result in, 6:252 nerve, 6:248 mechanical properties, 6:250 nerve reaction to injury, 6:249-250 normal anatomy, 6:248-249 nerve-related concepts, 6:250 central nervous system, involvement of, 6:250-251 double crush, 6:250 physiological effects, 6:238-239 principles of, 6:231 tendon collagen formation, 6:246f mechanical behavior of tendons, 6:246-248 normal anatomy, 6:246 tendon reaction to injury, 6:246 Erionite, 5:194 chemical and physical properties, 5:194 exposure assessment, 5:194 production and use, 5:194 toxicity, 5:194 Erlich ascites (EAT) tumor cells, 1:727 Erucic acid. 3:568 chemical and physical properties, 3:569 guidelines of exposure, 3:571 production and use, 3:569 toxic effects, 3:569 experimental studies, 3:569-571 human experience, 3:571 Ervol. See White oils Erythritol anhydride. See Butadiene Diepoxide Erythroblastic ferrochelatase, 1:406 Erythrocyte protoporhyrin (EP), dose-response curve for, 1:405f Erythropoietin production, 1:647 Esbrite 2. See Polystyrene Escre. See Chloral hydrate Esters categories, 4:57 general properties, 4:55, 4:56 general toxicity, 4:56

Esters (Continued) industrial hygiene evaluation, 4:56, 4:57 summary of OELs and monitoring methods, 4:57 Esters of adipates, azelates, and sebacates physical and chemical properties, 4:213t Esters of alkenyl dicarboxylic acids, 4:244 physical and chemical properties, 4:245t toxicity of, 4:246t Esters of aromatic diacids, 4:258, 4:263 acute toxicity of, 4:259t-4:262t environmental toxicity, 4:256t physical and chemical properties, 4:259t Esters of carbonic and orthocarbonic acids, 4:356 chemical and physical properties of, 4:356t toxicity data, 4:357t Esters of monocarboxylic acids and di- or trialcohols physical and chemical properties, 4:187-4:189 Esters of monocarboxylic halogenated acids, alkanols, or haloalcohols, 4:393 chemical and physical properties, 4:394t Esters of organic phosphorus compounds, 4:362 chemical and physical properties, 4:363t-4:365t toxicity data, 4:366t-4:368t Esters of oxalates, malonates, succinates, and glutarates physical and chemical properties, 4:211t toxicity of, 4:212t Esters of resorcinols and gallates toxicity of, 4:191 Estyrene AS. See Styrene-acrylonitrile (SAN) Estyrene g 15. See Polystyrene ET 597. See Polyacrylamide Etain. See Tin ETFE. See Ethylene tetrafluoroethylene copolymer Ethanal. See Acetaldehyde Ethanamine. See Ethylamine Ethandial. See Glyoxal 1,2-Ethandiol diacetate. See Ethylene glycol diacetate 1,1-Ethandiol diacetate. See Thylidene diacetate Ethane, 2:4. See also Ethylal biomonitoring/biomarkers, 2:5 chemical and physical properties, 2:5 exposure assessment, 2:5 exposure guidelines, 2:6 production/uses, 2:5 toxic effects, 2:5-6 acute toxicity, 2:5 carcinogenesis, 2:5 human experience, 2:6 pharmacokinetics, 2:5 reproductive/developmental, 2:5 Ethanecarboxylic acid. See Propionic acid Ethanedial. See Glyoxal Ethanediamine. See Ethylenediamine 1,2-Ethanediamine. See Ethylenediamine; N-(Hydroxyethyl)diethylenetriamine Ethane-1,2-diamine. See Ethylenediamine 1,2-Ethanedicarboxylic acid. See Succinic acid Ethane, 1,1-dichloro-1,2,2,2-tetrafluoroethane. See 1,1,-Dichloro-1,2,2,2-tetrafluoroethane

Ethanedioic acid. See Oxalic acid Ethane-1.2-dioic acid. See Oxalic acid Ethanedioic acid, bis(1-methylethyl) ester. See Diisopropyl oxalate Ethanedioic acid, dibutyl ester. See n-Dibutyl oxalate Ethanedioic acid, diethyl ester. See Diethyl oxalate Ethanedioic acid, dimethyl ester. See Dimethyl oxalate 1,1-Ethanediol. See Chloral hydrate 1,2-Ethanediol. See Ethylene glycol Ethane-1,2-diol. See Ethylene glycol Ethanediol diacetate. See Ethylene glycol diacetate 1,2-Ethanediol, dimethyl ether. See Ethylene glycol dimethyl ether 1,2-Ethanediol, dinitrate. See Ethylene glycol dinitrate 1,2-Ethanediol homopolymer. See Polyoxyethylene (POE) 1,2-Ethanediol monoacetate. See Ethylene glycol monoacetate 1,2-Ethanedione. See Glyoxal Ethane-1,2-dione. See Glyoxal Ethanedionic acid. See Oxalic acid 1,2-Ethanedithiol, 4:1056 animal and human studies, 4:1056-1057 chemical and physical properties, 4:1056 N, N'-1, 2-Ethane diylbis-(N-(carboxymethyl)glycine). See Ethylenediaminetetraacetic acid 2,2'-[1,2-Ethanediylbis(oxy)]bis-ethanol. See Triethylene glycol 2,2'-(1,2-Ethanediylbis(oxy))bisethanol diacetate. See Triethylene glycol diacetate 2,2'-Ethanediylbis(oxy)bisethanol dinitrate. See Triethylene glycol dinitrate 1,2-Ethanediyl diacrylate. See Ethylene glycol diacrylate 1,2-Ethanediyl ester. See Ethylene glycol diacrylate Ethane hexachloride. See Hexachloroethane Ethane pentachloride. See Pentachloroethane Ethaneperoxic acid. See t-Butyl peroxyacetate Ethanesulfonyl chloride, 4:1064 Ethane trichloride. See 1,1,2-Trichloroethane Ethanoic acid. See Acetic acid Ethanol. 3:926 animals, acute inhalation exposures, 3:929t chemical and physical properties, 3:927 exposure assessment, 3:927 guidelines of exposure, 3:934 production and use, 3:927 single-dose oral toxicity values, 3:928t toxic effects, 3:927 experimental studies, 3:927-933 human experience, 3:933-934 2-Ethanolamine. See Monoethanolamine Ethanol, 2-butoxy-, phthalate. See Dibutoxyethyl phthalate Ethanol, 2,2'-[oxybis(2,1-ethanediyloxy)]bis-. See Tetraethylene glycol Ethene, 2:49 biomonitoring/biomarkers, 2:51 chemical and physical properties, 2:51 exposure assessment, 2:51 guidelines of exposure, 2:53 production and use, 2:51 toxic effects, 2:51-2:53 cis-Ethene-1,2-dicarboxylic acid. See Maleic acid (E)-1,2-Ethenedicarboxylic acid. See Fumaric acid trans-1,2-Ethenedicarboxylic acid. See Fumaric acid

(Z)-1,2-Ethenedicarboxylic acid. See Maleic acid Ethene formate. See Vinyl formate Ethene homopolymer. See Polyethylene Ethene oxide. See Ethylene oxide Ethene, tetrachloro-. See Tetrachloroethylene Ethenol. See Polyvinyl alcohol Ethenol, homopolymer. See Polyvinyl alcohol Ethenone. See Ketene Ethenylbenzene. See Styrene 5-Ethenylbicyclo[2.2.1]hept-2-ene. See Vinylnorbornene 1-Ethenylcyclohexene. See 1-Vinylcyclohex-1-ene Ethenyl-1-cyclohexene. See 4-Vinylcyclohexene 4-Ethenylcyclohexene. See 4-Vinylcyclohexene 1-Ethenyl-1,5-dimethyl-4-hexenyl-3-phenyl-2-propenaote. See Linayl Cinnamate Ethenylene. See Acetylene Ethenyl ester. See Vinyl formate Ethenyl ethanoate. See Ethenyl acetate Ethenyl formate. See Vinyl formate Ethenylmethylbenzene. See Vinyltoluene 5-Ethenyl-2-methylpyridine. See Vinylpyridines 2-(Ethenyloxy)ethanol. See Ethylene glycol monovinyl ether Ethenyloxyethene. See Divinyl ether 2-Ethenylpyridine. See Vinylpyridines 4-Ethenylpyridine. See Vinylpyridines 1-Ethenyl-2-pyrrolidinone homopolymer. See Polyvinylpyrrolidone (PVP) Ether. See Diethyl ether; Ethyl bromide Etherin. See Polyethylene Etherol. See Polyethylene Ethers, 3:589 acute toxicity testing of, 3:595-596 air sampling and analytical procedures, 3:593t carcinogenicity of halogenated, 3:597t general toxicity, 3:594 hazards and photochemical degradation, 3:592 mutagenic vs. carcinogenic, 3:597t odor detection/recognition, 3:594t permissible exposure, hygienic standards of, 3:589 physical and chemical properties, 3:589, 3:589t-592t sources, 3:589 threshold limit values of, 3:592t uses. 3:589 Ethine. See Acetylene Ethinyl trichloride. See Trichloroethylene Ethlyene glycol mono-*n*-butyl ether acetate, 4:761 chemical and physical properties, 4:762 exposure assessment, 4:762 guidelines of exposure, 4:763 production and use, 4:762 toxic effects, 4:762 experimental studies, 4:762 human experience, 4:762-763 Ethocel. See Ethylcellulose Ethohexadiol. See 2-Ethyl-1,3-hexanediol Ethoprop, 4:1139 chemical and physical properties, 4:1139 exposure assessment, 4:1139–1140 guidelines of exposure, 4:1142

production and use, 4:1139 toxic effects experimental studies, 4:1140-1141 human experience, **4:**1141–1142 Ethoprophos. See Ethoprop Ethox. See Ethylene oxide 1-Ethoxy-2-acetoxypropanol. See Propylene glycol monoethyl ether acetate Ethoxybenzene. See Phenetole 4-Ethoxy-1-butanol. See Butylene glycol monoethyl ether 4-(Ethoxycarbonyl) aniline. See Ethyl p-aminobenzoate p-(Ethoxycarbonyl)aniline. See Ethyl p-aminobenzoate Ethoxycarbonylethylene. See Ethyl acrylate Ethoxycarbonylmethyl ethyl phthalate. See Ethyl phthalyl ethyl glycolate Ethoxycarbonylmethyl methyl phthalate. See Methyl phthalyl ethyl glycolate (Ethoxycarbonyl)methyl phthalate. See Methyl phthalyl ethyl glycolate p-Ethoxycarboxylic aniline. See Ethyl p-aminobenzoate Ethoxyethane. See Diethyl ether 2-Ethoxyethanol. See Ethylene glycol monoethyl ether 2-Ethoxyethanol acetate. See Ethylene glycol monoethyl ether acetate 2-(2-Ethoxyethoxy)ethanol. See Diethylene glycol monoethyl ether 2-(2-Ethoxyethoxy) ethanol acetate. See Diethylene glycol monoethyl ether acetate 2-[2-(2-Ethoxyethoxy)ethoxy] ethanol, ethoxy triglycol. See Triethylene glycol monoethyl ether 2-(2-(2-Ethoxyethoxy)ethoxyl)ethene. See Diethylene glycol ethyl vinyl ether 1-(2-Ethoxyethoxy)-2-vinyloxyethane. See Diethylene glycol ethyl vinyl ether Ethoxyformic anhydride. See Dimethyl carbonate 3-Ethoxy-4-hydroxybenzaldehyde. See Ethyl vanillin 1-Ethoxy-2-hydroxypropane. See Propylene glycol monoethyl ether Ethoxykarbonylmethyl-methylester kyseliny flatlove [Czech]. See Methyl phthalyl ethyl glycolate Ethoxylated 1,2-ethanediol. See Polyethylene glycols; Polyoxyethylene (POE) 1-[2-(2-Ethoxy-1-methylethoxy)-1-methylethoxy]-2-propanol. See Tripropylene glycol monoethyl ether 1-(2-Ethoxy-1-methylethoxy)-2-propanol. See Dipropylene glycol monoethyl ether 2-Ethoxy-1-methylethyl acetate. See Propylene glycol monoethyl ether acetate 4-Ethoxyphenol. See Hydroquinone monoethyl ether p-Ethoxyphenol. See Hydroquinone monoethyl ether 3-Ethoxy-propanal. See 3-Ethoxypropionaldedhyde 3-Ethoxy-1-propanal. See 3-Ethoxypropionaldedhyde 1-Ethoxy-2-propanol. See Propylene glycol monoethyl ether 1-Ethoxypropan-2-ol. See Propylene glycol monoethyl ether 3-Ethoxypropionaldedhyde, 3:681 chemical and physical properties, 3:682 Ethoxypropionic acid. See Ethyl 3-ethoxypropionate 3-Ethoxypropionic acid ethyl ester. See Ethyl 3-ethoxypropionate Ethoxy-propoxypropanol (DPGEE). See Dipropylene glycol monoethyl ether

1-Ethoxy-2-propyl acetate. See Propylene glycol monoethyl ether acetate Ethoxypropyl acetate (EPA). See Propylene glycol monoethyl ether acetate Ethoxytrimethyl silane. See Trimethylethoxy silane Ethoxy vinyl ether. See Ethyl vinyl ether 2-N-Ethyaminoethanol. See Monoethanolamine Ethylacetacetat. See Ethyl acetoacetate Ethyl acetate, 4:72 chemical and physical properties, 4:72 exposure assessment, 4:72 air, **4:**72 background levels, 4:72 workplace methods, 4:72 odor and warning properties, 4:72 production and use, 4:72 standards, regulations, or guidelines of exposure, 4:73 studies on environmental impact, 4:73, 4:74 toxic effects, 4:72 acute toxicity, 4:72, 4:73 clinical cases, 4:73 experimental studies, 4:72 genetic and related cellular effects studies, 4:73 human experience, 4:73 pharmacokinetics, metabolism, and mechanisms, 4:73 Ethylacetic acid. See Butyric acid Ethyl acetic ester. See Ethyl acetate Ethyl acetoacetate, 4:97 chemical and physical properties, 4:97 odor and warning properties, 4:97 production and use, 4:98 standards, regulations, or guidelines of exposure, 4:98 toxic effects, 4:98 acute toxicity, 4:98 experimental studies, 4:98 human experience, 4:98 Ethyl acetylacetate. See Ethyl acetoacetate 3-Ethylacrolein. See 2-Pentenal Ethyl acrylate, 4:114 chemical and physical properties, 4:115 exposure assessment, 4:115 workplace methods, 4:115 odor and warning properties, 4:115 production and use, 4:115 standards, regulations, or guidelines of exposure, 4:117 toxic effects, 4:115 acute toxicity, 4:115 carcinogenesis, 4:116 chronic and subchronic toxicity, 4:115 clinical cases, 4:117 epidemiology studies, 4:117 experimental studies, 4:115 genetic and related cellular effects studies, 4:116 human experience, 4:116 pharmacokinetics, metabolism, and mechanisms, **4:**116 reproductive and developmental, 4:116 Ethyl acrylate (inhibited). See Ethyl acrylate

Ethyl acrylate polymer, 4:932 exposure assessment, 4:932 toxic effect, 4:932 2-Ethylacrylic aldehyde. See 2-Pentenal Ethyl adipate. See Diethyl adipate Ethyl α -hydroxypropionate. See Ethyl lactate Ethylal, 3:719 chemical and physical properties, 3:720 toxic effects, 3:720 Ethyl alcohol. See Ethanol Ethyl aldehyde. See Acetaldehyde Ethyl α -methyl acrylate. See Ethyl methacrylate Ethylamine, 2:452 chemical and physical properties, 2:453 exposure assessment, 2:453 guidelines of exposure, 2:453 production and use, 2:453 toxic effects, 2:453 N-Ethylaminobenzene. See N-Ethylaniline Ethyl p-aminobenzoate chemical and physical properties, 4:180 exposure assessment, 4:180 production and use, 4:180 toxic effects, 4:180 acute toxicity, 4:180 clinical cases, 4:181 experimental studies, 4:180 genetic and related cellular effects studies, 4:180 human experience, 4:181 neurological, pulmonary, skin sensitization, 4:180, 4:181 Ethyl 4-aminobenzoate. See Ethyl p-aminobenzoate Ethyl p-aminobenzoate. See Ethyl p-aminobenzoate Ethylaminoethanol. See Monoethylethanolamine 1-Ethyl-2-aminoethanol. See Mono-sec-butanolamine 2-(Ethylamino)ethanol. See Monoethylethanolamine Ethyl p-aminophenylcarboxylate. See Ethyl p-aminobenzoate Ethyl n-amyl carbinol. See 3-Octanol Ethyl amyl ketone. See 3-Octanone Ethyl n-amyl ketone. See 3-Octanone Ethyl sec-amyl ketone. See 5-Methyl-3-heptanone Ethylaniline. See N-Ethylaniline N-Ethylaniline, 2:553, 2:625 chemical and physical properties, 2:554, 2:625 guidelines of exposure, 2:554 production and use, 2:554, 2:625 toxic effects, 2:554, 2:625 Ethyl benzenecarboxylate. See Ethyl benzoate Ethylbenzene hydroperoxide, 4:582 chemical and physical properties, 4:582 exposure assessment, 4:582 production and use, 4:582 toxic effects, 4:582-583 Ethylbenzenes, 2:195 toxicity of, 2:197-198 Ethyl benzoate, 4:156 chemical and physical properties, 4:156 odor and warning properties, 4:157 production and use, 4:157 toxic effects, 4:157

acute toxicity, 4:157 experimental studies, 4:157 neurological, pulmonary, skin sensitization, 4:157 Ethylbenzol. See Ethylbenzene Ethylbenzylideneacetate. See Ethyl cinnamate Ethyl β-ethoxypropionate. See Ethyl 3-ethoxypropionate Ethyl B-methyl butyrate. See Ethyl isovalerate Ethyl β-phenylacrylate. See Ethyl cinnamate Ethyl bromide, 3:102 chemical and physical properties, 3:103 exposure assessment, 3:103 guidelines of exposure, 3:106 production and use, 3:103 toxic effects experimental studies, 3:103-105 human experience, 3:105-106 Ethyl bromoacetate, 4:400 Ethyl Browning's monograph, 1:381 2-Ethylbutanal. See 2-Ethylbutyraldehyde Ethyl butanoate. See Ethyl butyrate Ethyl n-butanoate. See Ethyl butyrate α /2-Ethylbutanoic acid. See 2-Ethylbutyric acid 2-Ethylbutanol. See 2-Ethyl-1-butanol 2-Ethyl-1-butanol, 3:965 chemical and physical properties, 3:965 guidelines of exposure, 3:965 production and use, 3:965 toxic effects experimental studies, 3:965 2-Ethyl-4-butanol. See 3-Methyl-1-pentanol 2-Ethylbutoxypropanol, mixed isomers. See Propylene glycol monoethylbutyl ether, mixed isomers Ethylbutylacetaldehyde. See 2-Ethylhexylaldehyde Ethyl butyl acetate. See Ethyl caproate 2-Ethylbutyl alcohol. See 2-Ethyl-1-butanol Ethylbutylamine. See Ethyl-n-butylamine 2-Ethylbutylamine. See Isohexylamine 2-Ethyl-n-butylamine. See Ethyl-n-butylamine Ethyl-n-butylamine, 2:465 chemical and physical properties, 2:465 exposure assessment, 2:465 guidelines of exposure, 2:465 production and use, 2:465 toxic effects, 2:465 Ethyl n-butyl ketone, 3:858 chemical and physical properties, 3:859 environmental impact, studies, 3:860 exposure assessment, 3:859 guidelines of exposure, 3:860 production and use, 3:859 toxic effects experimental studies, 3:859-860 human experience, 3:860 2-Ethylbutyraldehyde, 3:681 chemical and physical properties, 3:681 Ethyl butyrate chemical and physical properties, 4:104 odor and warning properties, 4:104 production and use, 4:104

toxic effects, 4:104 acute toxicity, 4:104 clinical cases, 4:105 experimental studies, 4:104 human experience, 4:104 Ethyl 1-butyrate. See Ethyl butyrate Ethyl *n*-butyrate. See Ethyl butyrate 2-Ethylbutyric acid, 3:490 chemical and physical properties, 3:491 exposure assessment, 3:491 guidelines of exposure, 3:491 production and use, 3:491 toxic effects experimental studies, 3:491 human experience, 3:491 α -Ethylbutyric acid. See 2-Ethylbutyric acid α -Ethylcaproaldehyde. See 2-Ethylhexylaldehyde Ethyl caproate, 4:105 chemical and physical properties, 4:106 odor and warning properties, 4:106 production and use, 4:106 toxic effects. 4:106 Ethyl caproate (Nat. C-6 ethyl ester). See Ethyl caproate 2-Ethylcaproic acid. See 2-Ethylhexanoic acid Ethyl caprylate chemical and physical properties, 4:105 odor and warning properties, 4:105 production and use, 4:105 toxic effects, 4:105 acute toxicity, 4:105 experimental studies, 4:105 human experience, 4:105 Ethyl carbethoxymethyl phthalate. See Ethyl phthalyl ethyl glycolate Ethyl carbinol. See 1-Propanol Ethyl carbonate. See Dimethyl carbonate Ethyl cellulose, 3:645, 4:942 chemical and physical properties, 4:943 exposure assessment, 4:943 guidelines of exposure, 4:943 production and use, 4:943 toxic effects, 3:645, 4:943 Ethyl chloride chemical and physical properties, 3:61-62 exposure assessment, 3:62 guidelines of exposure, 3:65 production and use, 3:62 toxic effects, 3:62 experimental studies, 3:63-65 human experience, 3:65 Ethyl cinnamate, 4:174 chemical and physical properties, 4:174 odor and warning properties, 4:174 production and use, 4:174 toxic effects, 4:174 acute toxicity, 4:174 chronic and subchronic toxicity, 4:174 experimental studies, 4:174 genetic and related cellular effects studies, 4:174

Ethyl cinnamate (Continued) human experience, 4:174 neurological, pulmonary, skin sensitization, 4:174 pharmacokinetic, metabolism, and mechanisms, 4:174 2-Ethyl cinnamoate. See Ethyl cinnamate Ethyl citrate. See Triethyl citrate Ethyl cyanoacetate chemical and physical properties, 2:950t-951t, 2:980 toxic effects, 2:981 Ethyl cyanoformate chemical and physical properties, 2:950t-951t, 2:981 toxic effects, 2:981 Ethylcyclohexyldithiol, 4:1057 animal and human studies, 4:1057 chemical and physical properties, 4:1057 Ethylcyclopentane, 2:108 chemical and physical properties, 2:108 exposure assessment, 2:108 production and use, 2:108 toxic effects, 2:108 Ethyl d-carboethoxyvalerate. See Diethyl adipate Ethyl decanedioate. See Diethyl sebacate Ethyldiethanolamine. See Monoethyldiethanolamine N-Ethyldiethanolamine. See Monoethyldiethanolamine Ethyldimethylmethane. See 2-Methylbutane O-Ethyl S,S-dipropyl dithiophosphate. See Ethoprop O-Ethyl S,S,-dipropylphosphorodithioate. See Ethoprop O-Ethyl-S,S-dipropyl phosphorodithionate. See Ethoprop Ethylediaminetetraacetic acid (EDTA), 1:387, 1:393 mobilization tests, 1:387, 1:409 Ethylene. See Ethene Ethylene acetate. See Ethylene glycol diacetate Ethylene acrylate. See Ethylene glycol diacrylate Ethylene alcohol. See Ethylene glycol Ethylene aldehyde. See Acrolein Ethylene bromide. See Ethylene dibromide Ethylene carbonate, 4:358 chemical and physical properties, 4:359 studies on environmental impact, 4:360 toxic effects, 4:359 acute toxicity, 4:359 human experience, 4:359-4:360 pharmacokinetics, metabolism, and mechanisms, 4:359 reproductive and developmental, 4:359 Ethylenecarboxylic. See Acrylic acid Ethylene chlorohydrin. See 2-Chloroethanol Ethylene chlorotrifluoroethylene copolymer, 4:913 chemical and physical properties, 4:913 exposure assessment, 4:913 human experience, 4:914 production and use, 4:913 Ethylene-d3 (gas). See Ethene Ethylene diacetate. See Ethylene glycol diacetate Ethylene diacrylate. See Ethylene glycol diacrylate 1,2-Ethylene diacrylate. See Ethylene glycol diacrylate Ethylenediamine, 2:481 chemical and physical properties, 2:481 exposure assessment, 2:482

guidelines of exposure, 2:483 production and use, 2:481-482 toxic effects, 2:482-483 1,2-Ethylenediamine. See Ethylenediamine Ethylenediaminetetraacetic acid, 2:483 chemical and physical properties, 2:484 exposure assessment, 2:484 guidelines of exposure, 2:484 production and use, 2:484 toxic effects, 2:484 Ethylene dibromide, 3:106 chemical and physical properties, 3:106 exposure assessment, 3:107 guidelines of exposure, 3:111 production and use, 3:106-107 toxic effects experimental studies, 3:107-110 human experience, 3:110 Ethylene dicarboxylic acid. See Succinic acid cis-1,2-Ethylenedicarboxylic acid. See Maleic acid trans-1,2-Ethylenedicarboxylic acid. See Fumaric acid Ethylene dichloride, 3:69 chemical and physical properties, 3:69-70 exposure assessment, 3:70 guidelines of exposure, 3:72 production and use, 3:70 toxic effects experimental studies, 3:70-72 human experience, 3:72 1,2-Ethylene dichloride. See Ethylene dichloride Ethylene, 1,1-dichloro-. See Vinylidene chloride Ethylene diglycol. See Diethylene glycol Ethylene dihydrate. See Ethylene glycol Ethylene dimethyl ether. See Ethylene glycol dimethyl ether Ethylene dinitrate. See Ethylene glycol dinitrate 2,2'-(Ethylenedioxy) diethanol. See Triethylene glycol 2,2'-(Ethylenedioxy) di(ethyl acetate). See Triethylene glycol diacetate Ethylene glycol (EG), 4:595, 4:641 chemical and physical properties, 4:595-596 derivatives of. 4:641 environmental impact, studies, 4:602 exposure assessment, 4:596 guidelines of exposure, 4:602 occupational exposure, 4:641 analytical methods, 4:641-642 pharmacokinetics, metabolism, and mechanism of action, 4:642-646 production and use, 4:596, 4:641 toxic effect, 4:596 experimental studies, 4:597-601 human experience, 4:601-602 Ethylene glycol acetate. See Ethylene glycol diacetate Ethylene glycol-bis-(2-hydroxyethyl)ether. See Triethylene glycol Ethylene glycol t-butyl ether. See Ethylene glycol mono-tert-butyl ether Ethylene glycol carbonate. See Ethylene carbonate Ethyleneglycol, cyclic carbonate. See Ethylene carbonate

Ethylene glycol diacetate, 4:841 chemical and physical properties, 4:841 guidelines of exposure, 4:842 toxic effects, 4:841-842 Ethylene glycol diacrylate, 4:842 chemical and physical properties, 4:842 guidelines of exposure, 4:843 toxic effects, 4:842-843 Ethylene glycol diethyl ether, 4:715 chemical and physical properties, 4:716 exposure assessment, 4:716 guidelines of exposure, 4:717 production and use, 4:716 toxic effects experimental studies, 4:716-717 human experience, 4:717 Ethylene glycol dihydroxydiethyl ether. See Triethylene glycol Ethylene glycol dimethyl ether, 4:713 chemical and physical properties, 4:714 exposure assessment, 4:714 guidelines of exposure, 4:715 production and use, 4:714 toxic effects, 4:714 experimental studies, 4:714-715 human experience, 4:715 Ethylene glycol dinitrate, 2:381, 4:856 chemical and physical properties, 2:381 exposure assessment, 2:381, 4:857 guidelines of exposure, 2:383, 4:860 physical and chemical properties, 4:856, 4:856t production and use, 2:381, 4:856 toxic effects, 2:381-383, 4:857-860 Ethylene glycol *n*-hexyl ether. See Ethylene glycol mono-*n*-hexyl ether Ethylene glycol monoacetate, 4:840 chemical and physical properties, 4:840 guidelines of exposure, 4:841 toxic effects, 4:840-841 Ethylene glycol mono-n-butyl ether, 4:686 chemical and physical properties, 4:686 environmental impact, studies, 4:703 exposure assessment, 4:687-688 guidelines of exposure, 4:702-703 production and use, 4:687 toxic effects, 4:688 experimental studies, 4:688-699 human experience, 4:699-702 Ethylene glycol mono-tert-butyl ether, 4:704 exposure assessment, 4:704 guidelines of exposure, 4:705 production and use, 4:704 toxic effects experimental studies, 4:704 human experience, 4:705 Ethylene glycol monoethyl ether, 4:667 chemical and physical properties, 4:667 exposure assessment, 4:667 guidelines of exposure, 4:677 production and use, 4:667

toxic effects experimental studies, 4:667-674 human experience, 4:675-677 Ethylene glycol monoethyl ether acetate, 4:756 chemical and physical properties, 4:756 exposure assessment, 4:756 guidelines of exposure, 4:759 production and use, 4:756 toxic effects, 4:756 experimental studies, 4:756-758 human experience, 4:758-759 Ethylene glycol mono-2-ethylhexyl ether, 4:708 chemical and physical properties, 4:708 exposure assessment, 4:708 guidelines of exposure, 4:709 production and use, 4:708 toxic effects, 4:708 experimental studies, 4:709 Ethylene glycol mono-2,4-hexadiene ether, 4:707 chemical and physical properties, 4:708 exposure assessment, 4:708 guidelines of exposure, 4:708 production and use, 4:708 toxic effects, 4:708 Ethylene glycol mono-n-hexyl ether, 4:705 chemical and physical properties, 4:705-706 exposure assessment, 4:706 guidelines of exposure, 4:707 production and use, 4:706 toxic effects experimental studies, 4:706-707 human experience, 4:707 Ethylene glycol monoisobutyl ether, 4:703 chemical and physical properties, 4:703 exposure assessment, 4:703 guidelines of exposure, 4:704 production and use, 4:703 toxic effects experimental studies, 4:703-704 human experience, 4:704 Ethylene glycol monoisopropyl ether, 4:683 chemical and physical properties, 4:683 guidelines of exposure, 4:686 production and use, 4:683 toxic effects, 4:683 experimental studies, 4:683-685 human experience, 4:685 Ethylene glycol monomethyl ether, 4:649 chemical and physical properties, 4:649 exposure assessment, 4:651 guidelines of exposure, 4:665-666 production and use, 4:649-651 toxic effects experimental studies, 4:651-662 human experience, 4:662-665 Ethylene glycol monomethyl ether acetate, 4:753 chemical and physical properties, 4:754 exposure assessment, 4:754 guidelines of exposure, 4:755-756

Ethylene glycol monomethyl ether acetate (*Continued*) toxic effects, 4:754 experimental studies, 4:754-755 human experience, 4:755 Ethylene glycol mono-2-methylpentyl ether, 4:705 chemical and physical properties, 4:705 exposure assessment, 4:705 guidelines of exposure, 4:705 toxic effects, 4:705 Ethylene glycol monomethylphenyl ether, 4:713 exposure assessment, 4:713 production and use, 4:713 toxic effects, 4:713 Ethylene glycol monophenyl ether, 4:710 chemical and physical properties, 4:710 exposure assessment, 4:711 guidelines of exposure, 4:713 production and use, 4:710-711 toxic effects, 4:711 experimental studies, 4:711-712 human experience, 4:712-713 Ethylene glycol mono-n-propyl ether, 4:677 chemical and physical properties, 4:679 exposure assessment, 4:679 guidelines of exposure, 4:683 production and use, 4:679 toxic effects, 4:679 experimental studies, 4:679-683 human experience, 4:683 Ethylene glycol monopropyl ether acetate. See Ethylene glycol mono-n-propyl ether acetate Ethylene glycol mono-*n*-propyl ether acetate, **4:**759. See Ethylene glycol mono-*n*-propyl ether acetate chemical and physical properties, 4:759 guidelines of exposure, 4:761 production and use, 4:759 toxic effects, 4:759-761 workplace methods, 4:759 Ethylene glycol mono-2,6,8-trimethyl-4-nonyl ether, 4:709 chemical and physical properties, 4:710 exposure assessment, 4:710 guidelines of exposure, 4:710 production and use, 4:710 toxic effects, 4:710 Ethylene glycol monovinyl ether, 4:666 guidelines of exposure, 4:666 production and use, 4:666 toxic effects experimental studies, 4:666 Ethylene glycol 8000 polymer. See Polyethylene glycols Ethylene hexachloride. See Hexachloroethane Ethyleneimine carcinogenesis, 2:707 chemical and physical properties, 2:705-706 environmental impact studies, 2:708-709 exposure assessment, 2:706 exposure standards, 2:708 genetic and cellular effects, 2:707-708 odor and warning properties, 2:705

pharmacokinetics, metabolism, and mechanisms, 2:707 production and use, 2:706 reproductive and developmental effects, 2:707 toxic effects acute toxicity, 2:706, 706t experimental studies, 2:706-708 human experience, 2:708 subchronic and chronic toxicity, 2:706-707 Ethylene latex. See Polyethylene Ethylenenaphthalene. See Acenaphthene 1,8-Ethylenenaphthalene. See Acenaphthene Ethylene oxide, 4:427 chemical and physical properties, 4:427 exposure assessment, 4:428 background levels, 4:428 biomonitoring/biomarkers, 4:429-4:430 workplace methods, 4:428 odor and warning properties, 4:428 production and use, 4:428 standards, regulations, or guidelines of exposure, 4:438-4:439 toxic effects, 4:430 acute toxicity, 4:431 carcinogenesis, 4:433-4:434 chronic and subchronic toxicity, 4:431 clinical cases, 4:436-4:437 epidemiology studies, 4:437-4:438 experimental studies, 4:431 genetic and related cellular effects studies, 4:434-4:435 human experience, 4:436 neurological, pulmonary, skin sensitization, 4:435-4:436 pharmacokinetics, metabolism, and mechanisms, 4:431-4:432 reproductive and developmental, 4:432-4:433 1-Ethyleneoxy-3,4-epoxycyclohexane. See Vinylcyclohexene dioxide Ethylene polymer. See Polyethylene Ethylene-propylene, 4:896 chemical and physical properties, 4:896-897 production and use, 4:897 toxic effects. 4:897 Ethylene resin. See Polyethylene Ethylene resin, chlorosulfonated. See Chlorosulfonated polyethylene Ethylenesuccinic acid. See Succinic acid Ethylene sulfide, 4:1060 animal and human studies, 4:1060 chemical and physical properties, 4:1060 Ethylene terephthalate oligomer. See Polyethylene terephthalate Ethylene terephthalate polymer. See Polyethylene terephthalate Ethylene tetrachloride. See Tetrachloroethylene Ethylene, tetrachloro-. See Tetrachloroethylene Ethylene tetrafluoroethylene copolymer, 4:912 chemical and physical properties, 4:912 production and use, 4:912 Ethylene trichloride. See Trichloroethylene Ethyl ester. See Ethyl butyrate; Ethyl 3-ethoxypropionate; Ethyl isovalerate Ethylester kyseliny acetoctove. See Ethyl acetoacetate

Ethylester kyseliny p-aminobenzoove [Czech]. See Ethyl paminobenzoate Ethylester kyseliny benzoove [Czech]. See Ethyl benzoate Ethylester kyseliny 3-ethoxypropionove. See Ethyl 3ethoxypropionate Ethylester kyseliny p-hydroxybenzoove [Czech]. See Ethyl paraben Ethyl ester octanoic acid. See Ethyl caprylate N-Ethylethanamine. See Diethylamine N-Ethylethanolamine. See Monoethylethanolamine Ethylethenylbenzene. See Vinyltoluene Ethyl ether. See Diethyl ether Ethyl 3-ethoxypropanoate. See Ethyl 3-ethoxypropionate Ethylethoxy propionate. See Ethyl 3-ethoxypropionate Ethyl 3-ethoxypropionate, 4:101. See Ethyl 3-ethoxypropionate chemical and physical properties, 4:102 exposure assessment, 4:102 workplace methods, 4:102 odor and warning properties, 4:102 toxic effects, 4:102 acute toxicity, 4:102 experimental studies, 4:102 human experience, 4:102 Ethylethylene. See 1-Butene Ethyl ethylene oxide. See 1,2-Butylene oxide Ethyl formate, 4:61 chemical and physical properties, 4:62 exposure assessment, 4:62 workplace methods, 4:62 odor and warning properties, 4:62 production and use, 4:62 standards, regulations, or guidelines of exposure, 4:63 toxic effects, 4:62 carcinogenesis, 4:62, 4:63 experimental studies, 4:62 human experience, 4:63 pharmacokinetics, metabolism, and mechanisms, 4:62, 4:63 Ethylformic acid. See Propionic acid Ethyl fumarate. See Diethyl fumarate Ethyl glycol phenyl ether. See Ethylene glycol monophenyl ether Ethyl glyme. See Ethylene glycol diethyl ether 2-Ethylhexaldehyde. See 2-Ethylhexylaldehyde 2-Ethylhexanal. See 2-Ethylhexylaldehyde Ethyl hexanediol. See 2-Ethyl-1,3-hexanediol 2-Ethyl-1,3-hexanediol, 4:628 2-Ethylhexane-1,3-diol. See 2-Ethyl-1,3-hexanediol 2-Ethyl-1,3-hexanediol chemical and physical properties, 4:629 exposure assessment, 4:629 guidelines of exposure, 4:630 production and use, 4:629 toxic effects experimental studies, 4:629-630 human experience, 4:630 2-Ethylhexane-diol-1,3. See 2-Ethyl-1,3-hexanediol 2-Ethylhexaneperoxoic acid. See 2,5-Dimethyl-2,5-di-(2ethylhexanoylperoxy) hexane Ethyl hexanoate. See Ethyl caproate Ethyl n-hexanoate. See Ethyl caproate 2-Ethylhexanoic acid, 3:494

chemical and physical properties, 3:494 exposure assessment, 3:495 guidelines of exposure, 3:498 production and use, 3:495 toxic effects experimental studies, 3:495-498 human experience, 3:498 2-Ethylhexanol, 4:6 chemical and physical properties, 4:6 exposure assessment, 4:6 production and use, 4:6 toxic effects, 4:6 acute toxicity, 4:6, 4:7 carcinogenesis, 4:9 chronic and subchronic toxicity, 4:7, 4:8 experimental studies, 4:6 genetic and related cellular effects studies, 4:9 human experience, 4:9 neurological, pulmonary, and skin sensitization, 4:9 pharmacokinetics, metabolism, and mechanisms, 4:8 reproductive and developmental, 4:8, 4:9 2-Ethylhexanol-1. See 2-Ethylhexanol 2-Ethylhexan-1-ol. See 2-Ethylhexanol 2-Ethyl-1-hexanol hydrogen phosphate. See Di(2-ethylhexyl) phosphate 2-Ethyl-1-hexanone. See 2-Ethylhexylaldehyde 2-Ethyl-2-hexenal. See 2-Ethyl-3-propylacrolein 2-Ethylhex-2-enal. See 2-Ethyl-3-propylacrolein Ethyl hexoate. See Ethyl caproate 2-Ethylhexoic acid. See 2-Ethylhexanoic acid 2-Ethyl-n-hexyl alcohol. See 2-Ethylhexanol 2-Ethylhexylaldehyde, 3:681 chemical and physical properties, 3:681 2-Ethylhexylamine, 2:470 chemical and physical properties, 2:470 guidelines of exposure, 2:471 production and use, 2:470 toxic effects, 2:470 Ethyl hexylene glycol. See 2-Ethyl-1,3-hexanediol 2-Ethyl-1,3-hexylene glycol. See 2-Ethyl-1,3-hexanediol 2-Ethylhexyl fumarate. See Di(2-ethylhexyl) fumarate Ethylhexyl glycidyl ether, 4:465 chemical and physical properties, 4:466 exposure assessment, 4:466 guidelines of exposure, 4:466 production and use, 4:466 toxic effects, 4:466 [(2-Ethylhexyl)oxy]1,2-epoxy-3-propane. See Ethylhexyl glycidyl ether 2-(2-Ethylhexyloxy)ethanol. See Ethylene glycol mono-2ethylhexyl ether [(2-Ethylhexyl)oxy]methyloxirane. See Ethylhexyl glycidyl ether 2-Ethylhexyl sebacate. See Di(2-ethylhexyl) sebacate 2-Ethylhexylsufosuccinate sodium. See Dioctyl sodium sulfosuccinate Ethyl hydrate. See Ethanol Ethyl hydride. See Ethane Ethyl hydroxide. See Ethanol

Ethyl 2-hydroxybenzoate. See Ethyl salicylate

Ethyl 4-hydroxybenzoate. See Ethyl paraben Ethyl o-hydroxybenzoate. See Ethyl salicylate Ethyl p-hydroxybenzoate. See Ethyl paraben Ethyl 2-hydroxypropanoate. See Ethyl lactate Ethyl 2-hydroxypropionate. See Ethyl lactate Ethylic acid. See Acetic acid 5-Ethylidene-. See Ethylidene norbornene 5-Ethylidenebicyclo[2,2,1]hept-2-ene. See Ethylidene norbornene Ethylidene chloride. See Dichloroethane-1,1 Ethylidene dichloride. See Dichloroethane-1,1 Ethylidene diethyl ether. See Acetal Ethylidene difluoride. See 1,1-Difluoroethane Ethylidene dimethyl ether. See Dimethylacetal Ethylidene norbornene, 2:142 chemical and physical properties, 2:142 environmental impact, studies, 2:143 exposure assessment, 2:142 production and use, 2:142 toxic effects, 2:142-143 Ethylidene-2-norbornene. See Ethylidene norbornene 5-Ethylidene-2-norbornene. See Ethylidene norbornene 5-Ethylidene-8,9,10-trinorborn-2-ene. See Ethylidene norbornene Ethylidine diethyl ether. See Acetal 2,2'-Ethyliminodiethanol. See Monoethyldiethanolamine N-Ethyl-2,2'-imminodiethanol. See Monoethyldiethanolamine Ethyl iodide, 3:114. See Ethyl iodide chemical and physical properties, 3:114 guidelines of exposure, 3:114 production and use, 3:114 toxic effects, 3:114 experimental studies, 3:114 human experience, 3:114 Ethyl iodoacetate, 4:400 Ethylis aminobenzoas. See Ethyl p-aminobenzoate Ethyl isoamyl ketone. See 5-Methyl-3-heptanone Ethyl isopentanoate. See Ethyl isovalerate Ethyl isovalerate, 4:106 chemical and physical properties, 4:106 odor and warning properties, 4:106 production and use, 4:106 toxic effects. 4:106 acute toxicity, 4:106 carcinogenesis, 4:107 human experience, 4:106 Ethyl isovalerate (iso C-5 ethyl ester). See Ethyl isovalerate Ethyl isovalerianate. See Ethyl isovalerate Ethyl itaconate. See Diethyl itaconate Ethyl β -ketobutyrate. See Ethyl acetoacetate Ethyl lactate, 4:130 chemical and physical properties, 4:130 exposure assessment, 4:130 workplace methods, 4:130 odor and warning properties, 4:130 production and use, 4:130 toxic effects acute toxicity, 4:130 chronic and subchronic toxicity, 4:130 experimental studies, 4:130 genetic and related cellular effects studies, 4:131

human experience, 4:131 pharmacokinetics, metabolism, and mechanisms, 4:130 reproductive and developmental, 4:130, 4:131 Ethyl L-lactate. See Ethyl lactate Ethyl maleate; diethylester kyseliny maleinove [Czech]. See Diethyl maleate Ethyl malonate. See Diethyl malonate Ethyl mercaptan animal and human studies, 4:1044 chemical and physical properties, 4:1044 exposure assessment, regulations, and standards, 4:1044 production and use, 4:1044 Ethyl methacrylate, 4:123 chemical and physical properties, 4:123 exposure assessment, 4:123 workplace methods, 4:123 production and use, 4:123 studies on environmental impact, 4:124 toxic effects, 4:123 acute toxicity, 4:123 experimental studies, 4:123 genetic and related cellular effects studies, 4:123, 4:124 human experience, 4:124 pharmacokinetics, metabolism, and mechanisms, 4:123 reproductive and developmental, 4:123 Ethyl 2-methacrylate. See Ethyl methacrylate Ethyl methanedicarboxylate. See Diethyl malonate Ethyl methanoate. See Ethyl formate Ethyl o-(o-(methoxycarbonyl)benzoyl)glycolate. See Methyl phthalyl ethyl glycolate Ethyl o-(methoxycarbonyl) benzoyloxyacetate. See Methyl phthalyl ethyl glycolate Ethyl methyl acrylate. See Ethyl methacrylate Ethyl 2-methylacrylate. See Ethyl methacrylate Ethylmethylbenzene. See o/m/p-Methylethylbenzene Ethyl 3-methylbutanoate. See Ethyl isovalerate Ethyl 3-methylbutyrate. See Ethyl isovalerate Ethyl methyl carbinol. See 2-Butanol O-Ethyl O-(1-methylethyl) phosphorothioate. See Phostebupirim Ethyl methyl ketone. See Methyl ethyl ketone 2-Ethyl-4-methyl-1-pentanol, 4:11 chemical and physical properties, 4:12 production and use, 4:12 toxic effects, 4:12 acute toxicity, 4:12 experimental studies, 4:12 pharmacokinetics, metabolism, and mechanisms, 4:12 Ethyl 2-methyl-2-propenoate. See Ethyl methacrylate Ethyl nitrate, 2:377 chemical and physical properties, 2:378 exposure assessment, 2:378 guidelines of exposure, 2:378 production and use, 2:378 toxic effects. 2:378 Ethyl nitrite, 2:393 chemical and physical properties, 2:394 exposure assessment, 2:394 production and use, 2:394 toxic effects, 2:394

Ethyl nitrite solution. See Ethyl nitrite N-Ethyl-N-nitrosourea, 2:425 chemical and physical properties, 2:425 exposure analysis, 2:425 production, use, and exposure opportunity, 2:425 toxic effects, 2:425-426 Ethyl (9Z)-9-octadecenoate. See Ethyl oleate Ethyl cis-9-octadecenoate. See Ethyl oleate Ethyl octanoate. See Ethyl caprylate Ethyl n-octanoate. See Ethyl caprylate Ethyl octylate. See Ethyl caprylate Ethyl oleate, 4:107 chemical and physical properties, 4:107 production and use, 4:107 toxic effects, 4:107 acute toxicity, 4:107 chronic and subchronic toxicity, 4:107, 4:108 experimental studies, 4:107 human experience, 4:108 pharmacokinetics, metabolism, and mechanisms, 4:108 Ethyl orthoacetate. See Triethyl orthoacetate Ethyl orthopropionate. See Triethyl orthopropionate Ethyl orthosilicate. See Ethyl silicate Ethyl oxalate. See Diethyl oxalate Ethyl oxide. See Diethyl ether Ethyloxirane. See 1,2-Butylene oxide 2-Ethyloxirane. See 1,2-Butylene oxide Ethyl 3-oxobutanoate. See Ethyl acetoacetate Ethyl 3-oxobutyrate. See Ethyl acetoacetate Ethyl 2-oxopropanoate. See Ethyl pyruvate Ethyl 2-oxopropionate. See Ethyl pyruvate Ethyl p-oxybenzoate. See Ethyl paraben Ethyl PABA. See Ethyl p-aminobenzoate Ethyl paraben, 4:169 chemical and physical properties, 4:169 odor and warning properties, 4:169 production and use, 4:169 toxic effects, 4:169 acute toxicity, 4:169 chronic and subchronic toxicity, 4:169 experimental studies, 4:169 genetic and related cellular effects studies, 4:170 human experience, 4:170 pharmacokinetics, metabolism, and mechanisms, 4:169, 4:170 reproductive and developmental, 4:169, 4:170 Ethylpentamethylene. See Ethylcyclopentane 1-Ethylpentylamine. See 3-Aminoheptane 2-Ethyl-t-pentyl ester. See Peroxyhexanoic acid Ethyl pentyl ketone. See 3-Octanone 2-Ethylperoxyhexanoic acid. See 2,5-Dimethyl-2,5-di-(2-ethylhexanoylperoxy) hexane; Peroxyhexanoic acid Ethyl 3-phenylacrylate. See Ethyl cinnamate Ethylphenylamine. See N-Ethylaniline Ethyl 3-phenyl-2-propenoate. See Ethyl cinnamate Ethyl phosphate. See Triethyl phosphate Ethyl phthalyl ethyl glycolate, 4:312 chemical and physical properties, 4:312 toxic effects, 4:313

acute toxicity, 4:313 chronic and subchronic toxicity, 4:313 5-Ethyl-2-picoline. See Alkylpyridines Ethyl propanedioate. See Diethyl malonate Ethyl propanoate. See Ethyl propionate 3-Ethyl-2-propenal. See 2-Pentenal Ethyl propenoate. See Ethyl acrylate Ethyl 2-propenoate. See Ethyl acrylate Ethyl propionate, 4:100 chemical and physical properties, 4:101 odor and warning properties, 4:101 production and use, 4:101 toxic effects, 4:101 acute toxicity, 4:101 experimental studies, 4:101 human experience, 4:101 Ethyl proponoate. See Ethyl propionate 2-Ethyl-3-propylacrolein, 3:694 α -Ethyl- β -*n*-propylacrolein. See 2-Ethyl-3-propylacrolein 2-Ethyl-3-propyl-1,3-propanediol. See 2-Ethyl-1,3-hexanediol Ethylprotocatechuic aldehyde. See Ethyl vanillin α -Ethylpyridine. See Alkylpyridines γ-Ethylpyridine. See Alkylpyridines Ethyl pyruvate chemical and physical properties, 4:133 toxic effects, 4:133 Ethyl salicylate, 4:164 chemical and physical properties, 4:164 production and use, 4:165 standards, regulations, or guidelines of exposure, 4:165 toxic effects, 4:165 acute toxicity, 4:165 chronic and subchronic toxicity, 4:165 experimental studies, 4:165 human experience, 4:165 neurological, pulmonary, skin sensitization, 4:165 pharmacokinetics, metabolism, and mechanisms, 4:165 Ethyl sebacate. See Diethyl sebacate Ethyl silicate chemical and physical properties, 4:414 clinical cases, 4:415 exposure assessment, 4:414 human experience, 4:415 production and use, 4:414 standards, regulations, or guidelines of exposure, 4:415 toxic effects, 4:414-4:415 Ethyl silicon trichloride. See Ethyltrichloro silane Ethyl succinate. See Diethyl succinate (S-[2-(Ethylsulfinyl)-ethyl] O,O-dimethyl phosphorothioate). See Oxydemeton methyl Ethyltoluene. See o/m/p-Methylethylbenzene Ethyl trans-cinnamate. See Ethyl cinnamate Ethyltrichlorosilane. See Ethyltrichloro silane Ethyltrichloro silane chemical and physical properties, 4:407 odor and warning properties, 4:407 production and use, 4:407 toxic effects, 4:408

Ethyltrichloro silane (Continued) acute toxicity, 4:408 human experience, 4:408 pharmacokinetics, metabolism, and mechanisms, 4:408 Ethyl trimethylsilyl ether. See Trimethylethoxy silane Ethyl vanillin, 3:634 chemical and physical properties, 3:634 exposure assessment, 3:634 toxic effects, 3:634 Ethyl vinyl ether, 3:614 chemical and physical properties, 3:614 toxic effects, 3:614 Ethyl Z-9-octadecenoate. See Ethyl oleate Ethyne. See Acetylene Ethyne, dichloro-. See Dichloroacetylene Ethynol carbinol. See Propargyl alcohol Ethynyl methanol. See Propargyl alcohol o-(Ethyoxycarbonyl) phenol. See Ethyl salicylate ETO. See Ethylene oxide EtO. See Ethylene oxide Eucanine GB. See 2,4-Toluenediamine Eudialyte, 1:439 Eugenol, 3:627 chemical and physical properties, 3:628 exposure assessment, 3:628 toxic effects, 3:628 experimental studies, 3:628 human experience, 3:628 Eugenol methyl ether. See Methyleugenol 1,3,4-Eugenol methyl ether. See Methyleugenol Eugenyl methyl ether. See Methyleugenol Eulimen. See Limonene European Chemicals Agency (ECHA), 5:33 European Commission (EC), report classified vanadium pentoxide as Category 3, 1:536 germanium substrates, heavily used in, 1:356 Euxyl K 400. See Ethylene glycol monophenyl ether Exhaled breath condensate (EBC), 1:588 Exposure assessment, personal framework for, 5:70f Exposure limits characteristics of, 5:79t recommendations, and guidelines, 5:317t for selected countries, 5:317t Exposures, EPA guidance, 5:71f External radiation standards, 1:19 Extra low frequency (ELF) electromagnetic fields, 6:109 causing cancer, 6:115-116 damage to sperm, 6:122 international and national standard of exposure, 6:123-124 magnetic field standards, 6:123t Ex vivo alveolar macrophage (AM) fibronectin, 1:432 (E,Z,Z)-1,5,9-Cyclododecatriene. See 1,5,9-Cyclododecatriene

F-21. *See* Dichlorofluoromethane FAA. *See* 2-Acetylaminofluorene 2-FAA. *See* 2-Acetylaminofluorene Fagus sylvatica creosote. *See* Wood creosote Faint punctate erythema, **1:**371 Fanconi syndrome, 1:392 Fannoform. See Formaldehyde Fartox. See Pentachloronitrobenzene Fast Blue. See 3,3'-Dimethoxybenzidine Fast Blue B Base. See 3,3'-Dimethoxybenzidine Fast Blue DSC Base. See 3,3'-Dimethoxybenzidine Fast Blue R Salt. See 4-Aminodiphenylamine; *p*-Aminodiphenylamine Fast Brown RR Salt. See 2,6-Dichloro-1,4-phenylenediamine Fast Brown Salt RR. See 2,6-Dichloro-1,4-phenylenediamine Fast Corinth Base B. See Benzidine Fast Dark Blue Base R. See 3,3'-Dimethylbenzidine Fast Garnet Base B. See 1-Naphthylamine Fast Garnet GBC Base. See o-Aminoazotoluene Fast Oil Yellow. See o-Aminoazotoluene Fast Orange Base GR. See 2-Nitroaniline; o-Nitroaniline Fast Orange Base JR. See 2-Nitroaniline; o-Nitroaniline Fast Orange Base R. See 3-Nitroaniline; m-Nitroaniline Fast Orange GC Base. See 3-Chloroaniline; m-Chloroaniline Fast Orange GR Base. See 2-Nitroaniline; o-Nitroaniline Fast Orange GR Salt. See 2-Nitroaniline; o-Nitroaniline Fast Orange M Base. See 3-Nitroaniline; m-Nitroaniline Fast Orange MM Base. See 3-Nitroaniline; m-Nitroaniline Fast Orange O Base. See 2-Nitroaniline; o-Nitroaniline Fast Orange O Salt. See 2-Nitroaniline; o-Nitroaniline Fast Orange R Base. See 3-Nitroaniline; m-Nitroaniline Fast Orange Salt JR. See 2-Nitroaniline; o-Nitroaniline Fast Red Base GG. See 4-Nitroaniline; p-Nitroaniline Fast Red Base 3GL Special. See 4-Chloro-2-nitroaniline Fast Red Base 2J. See 4-Nitroaniline; p-Nitroaniline Fast Red Base 3JL. See 4-Chloro-2-nitroaniline Fast Red Base TR. See 4-Chloro-o-toluidine Fast Red 5CI Base. See 4-Chloro-o-toluidine Fast Red G Base. See 5-Nitro-o-toluidine Fast Red 2G Base. See 4-Nitroaniline; p-Nitroaniline Fast Red GG Base. See 4-Nitroaniline; p-Nitroaniline Fast Red 3GL Base. See 4-Chloro-2-nitroaniline Fast Red 3GL Salt. See 4-Chloro-2-nitroaniline Fast Red 3GL Special Base. See 4-Chloro-2-nitroaniline Fast Red 3GL Special Salt. See 4-Chloro-2-nitroaniline Fast Red 2G Salt. See 4-Nitroaniline; p-Nitroaniline Fast Red KB Amine. See 5-Chloro-o-toluidine Fast Red KB Base. See 5-Chloro-o-toluidine Fast Red KB Salt. See 5-Chloro-o-toluidine Fast Red KB Salt Supra. See 5-Chloro-o-toluidine Fast Red KBS Salt. See 5-Chloro-o-toluidine Fast Red MP Base. See 4-Nitroaniline; p-Nitroaniline Fast Red P Base. See 4-Nitroaniline; p-Nitroaniline Fast Red P Salt. See 4-Nitroaniline; p-Nitroaniline Fast Red Salt GG. See 4-Nitroaniline; p-Nitroaniline Fast Red Salt 2J. See 4-Nitroaniline; p-Nitroaniline Fast Red Salt 3JL. See 4-Chloro-2-nitroaniline Fast Red SG Base. See 5-Nitro-o-toluidine Fast Red TR 11. See 4-Chloro-o-toluidine Fast Red TR Base. See 4-Chloro-o-toluidine Fast Red TRO Base. See 4-Chloro-o-toluidine Fast Red ZNC Base. See 4-Chloro-2-nitroaniline Fast Red ZNC Salt. See 4-Chloro-2-nitroaniline Fast Scarlet Base B. See 2-Naphthylamine

Fast Scarlet Base G. See 5-Nitro-o-toluidine Fast Scarlet Base J. See 5-Nitro-o-toluidine Fast Scarlet G. See 5-Nitro-o-toluidine Fast Scarlet 2G. See 2,5-Dichloroaniline Fast Scarlet G Base. See 5-Nitro-o-toluidine Fast Scarlet GC Base. See 5-Nitro-o-toluidine Fast Scarlet J Salt. See 5-Nitro-o-toluidine Fast Scarlet Mn4T Base. See 5-Nitro-o-toluidine Fast Scarlet T Base. See 5-Nitro-o-toluidine Fast Yellow AT. See o-Aminoazotoluene Fast Yellow GC Base. See 2-Chloroaniline; o-Chloroaniline Fatal hepatotoxicity, 1:728 Fatty acid methyl ester (FAME). See Biodiesel Fatty acid polyamides, 4:958 Fat Yellow B. See o-Aminoazotoluene Fat Yellow R. See 4-Dimethylaminoazobenzene Fat Yellow R (8186). See 4-Dimethylaminoazobenzene FC 123. See 1,1-Dichloro-2,2,2-trifluoroethane Fc-125. See Pentafluoroethane FC 134a. See 1,1,1,2-Tetrafluoroethane FDPET. See Fluorodopa positron emission tomography Fecundability odds ratio (OR), 1:572 Federal insecticide, fungicide, and rodenticide act (FIFRA), 1:53 Federal Motor Carrier Safety Administration (FMCSA), 5:12 Felsules. See Chloral hydrate FEMA high-priority agents, 5:135t FEMA No. 2007. See Glyceryl triacetate FEMA No. 2022. See n-Allyl cinnamate FEMA No. 2138. See Benzyl benzoate FEMA No. 2142. See Benzyl cinnamate FEMA No. 2192. See n-Butyl cinnamate FEMA No. 2203. See Butyl paraben FEMA No. 2223. See Glyceryl tributyrate FEMA No. 2373. See Dibutyl sebacate FEMA No. 2375. See Diethyl malonate FEMA No. 2376. See Diethyl sebacate FEMA No. 2430. See Ethyl cinnamate Fema no. 2433. See Ethylene oxide FEMA No. 2458. See Ethyl salicylate FEMA No. 2641. See Linayl Cinnamate FEMA No. 2682. See Methyl o-aminobenzoate FEMA No. 2683. See Methyl benzoate FEMA No. 2698. See Methyl cinnamate FEMA No. 2710. See Methyl paraben FEMA No. 2745. See Salicylates FEMA No. 2938. See n-Propyl cinnamate FEMA No. 2947. See Propyl gallate FEMA No. 2951. See Propyl paraben FEMA No. 3286. See Glyceryl tripropionate FEMA No. 2377 [NLM]. See Diethyl succinate FEMA No. 2422 [NLM]. See Ethyl benzoate FEMA No. 2932 [NLM]. See Isopropyl benzoate FEMA No. 3691 [NLM]. See Hexyl benzoate Fenitrothion, 4:1142 chemical and physical properties, 4:1142 exposure assessment, 4:1142-1143 guidelines of exposures, 4:1147 production and use, 4:1142 toxic effects

experimental studies, 4:1143-1146 human experiences, 4:1146-1147 Fenoxyl. See 2,4-Dinitrophenol Fenoxyl Carbon N. See 2,4-Dinitrophenol Fenylester kyseliny salicylove [Czech]. See Phenyl salicylate 3-Fenyl-propenal. See Cinnamaldehyde FEP. See Fluorinated ethylene propylene copolymer; Free erythrocytic protoporphyrin Fermentation alcohol. See Ethanol Fermentation amyl alcohol. See 3-Methyl-1-butanol Fermentation butyl alcohol. See Isobutanol Ferroactinolite. See Asbestos Ferroalloys, 1:608, 1:614, 1:625, 1:638 Ferrocene, 1:26, 1:640 exposure assessment, 1:27 production, 1:27 properties, 1:26, 1:27 standards, regulations/guidelines of exposure, 1:28 toxic effects, 1:27, 1:28 uses, 1:27 Ferrochelatase, 1:389, 1:411 Ferrovanadium alloy, 1:515 FEV pattern of functional response, 5:492f Fiber A. See Polyacrylonitrile Filtrawhite. See White oils Filtrolatum. See Petrolatum Filtrosoft. See Petrolatum Fire damp. See Methane Fire deaths, 6:400 Firefighters, 6:400 Fires, toxic gases generation adverse effects, 6:400-402 Fischer-Tropsch wax. See Paraffins (waxes) FISH. See Fluorescence in situ hybridization Flame atomic absorption spectrophotometry (FAAS), 1:169, 1:444, 1:515-516, 1:517, 1:690, 1:711 Flammability, 6:291 140° Flash naphtha, 5:347chemical and physical properties, 5:347 exposure assessment, 5:347 guidelines of exposure, 5:347 production and use, 5:347 toxic effects. 5:347 Flavor and Extract Manufacturers Association of the United States (FEMA), 5:134 Flavorings, 5:2 Flexible collodion. See Cellulose nitrate FLIR camera. See Forward looking infrared cameras Flotation chemicals, 1:383 Flothene. See Polyethylene Fluid-AP. See Polypropylene glycol butyl ethers Flukoids. See Carbon tetrachloride Flu-like syndrome, 1:956 Fluoranthene, 5:412 chemical and physical properties, 5:412 exposure assessment, 5:413 guidelines of exposure, 5:413 production and use, 5:413 toxic effects, 5:413

Fluorene, 5:413 chemical and physical properties, 5:413 exposure assessment, 5:413-414 guidelines of exposure, 5:414 production and use, 5:413 toxic effects, 5:414 Fluorenylacetamide. See 2-Acetylaminofluorene 2-Fluorenylacetamide. See 2-Acetylaminofluorene N-2-Fluorenyl acetamide. See 2-Acetylaminofluorene N-Fluoren-2-yl acetamide. See 2-Acetylaminofluorene N-9H-Fluoren-2-yl-acetamide. See 2-Acetylaminofluorene N-2-Fluorenylacetamide. See 2-Acetylaminofluorene N-Fluoren-2-yl acetamide. See 2-Acetylaminofluorene N-9H-Fluoren-2-yl-acetamide. See 2-Acetylaminofluorene Fluorescence in situ hybridization (FISH), 1:446, 1:533, 1:863 Fluorethene. See Vinyl fluoride Fluorinated ethylene propylene copolymer, 4:910 chemical and physical properties, 4:910-911 production and use, 4:911 toxic effects, 4:911 Fluorine, 1:1033 chemical and physical properties, 1:1034 exposure assessment, 1:1035 LC50 values for animals exposed to, 1:1035t production and use, 1:1034-1035 standards, regulations, or guidelines of exposure, 1:1038 thresholds and standards for exposure to, 1:1038t toxic effects. 1:1035 acute toxicity, 1:1035-1036 chronic and subchronic toxicity, 1:1036 human experience, 1:1037-1038 neurological, pulmonary, skin sensitization, 1:1036-1037 pharmacokinetics, metabolism, and mechanisms, 1:1036 reproductive and developmental, 1:1036 Fluoroacetaldehyde chemical and physical properties, 3:700 4-Fluorobutanal, 3:682 chemical and physical properties, 3:682 Fluorocarbon 22. See Chlorodifluoromethane Fluorocarbon 112. See 1,1,2,2-Tetrachloro-1,2-difluoroethane Fluorocarbon 113. See 1.1.2-Trichloro-1.2.2-trifluoroethane Fluorocarbon 114. See 1,2,-Dichloro-1,1,2,2-tetrafluoroethane Fluorocarbon 115. See 1-Chloro-1,1,2,2,2-Pentafluoroethane Fluorocarbon 123. See 1,1-Dichloro-2,2,2-trifluoroethane Fluorocarbon 112a. See 1,1,1,2-Tetrachloro-2,2-difluoroethane Fluorocarbon 133a. See 1-Chloro-2,2,2-trifluoroethane Fluorocarbon 134a. See 1,1,1,2-Tetrafluoroethane Fluorocarbon 143a. See 1.1.1-Trifluoroethane Fluorocarbon 152a. See 1,1-Difluoroethane Fluorodichloromethane. See Dichlorofluoromethane Fluorodopa positron emission tomography (FDPET), 1:612 Fluoroesters, 4:399 fluoroacetates, 4:399 fluoroalkyl acetates, 4:399 fluorobutyrates, 4:400 fluoropropionates, 4:399 toxicity data for, 4:395t 1-Fluoroethene. See Vinyl fluoride Fluoroethylene. See Vinyl fluoride

1-Fluoroethylene. See Vinyl fluoride Fluorophlogopite. See Mica Fluorosis, 1:919 Fluorspar (CaF₂), uses, 1:640 FMVE. See Perfluoroalkoxy copolymer F344/NCr Rats lung tumors, 5:192t Folin's reagent, 2:706 Follicle-stimulating hormone (FSH), 1:401 Folpet carcinogenesis, 2:755-756 chemical and physical properties, 2:751 environmental impact studies, 2:758-759 exposure assessment, 2:751 exposure standards, 2:758 genetic and cellular effects, 2:756-757 genotoxicity of, 2:756t odor and warning properties, 2:751 pharmacokinetics, metabolism, and mechanisms, 2:753-754 production and use, 2:751 reproductive and developmental effects, 2:754-755 toxic effects acute toxicity, 2:751-752, 2:751t experimental studies, 2:746-749 human experience, 2:758 subchronic and chronic toxicity, 2:752-753 Folylpolyglutamate synthetase (FPGS) gene, 1:725 Fomac 2. See Pentachloronitrobenzene Fomyloxirane. See Glycidaldehyde Fonoline. See White oils Food additive, as trisodium phosphate, 1:943 Food Additives Amendment of 1958, 5:2 Food and Drug Administration (FDA), 5:2 Food/flavor industry chemical residues, contaminants, and ingredients, 5:134-136 chemical structure, role of, 5:136-137 future of, 5:137 toxicologists, 5:134 Food safety crops/ingredients, 5:133 Food Safety Modernization Act, 5:133 Food technology, 5:2 Forced expiratory volume (FEV) values, 1:680, 1:1046 Forced vital capacity (FVC), 1:179, 1:198, 1:720, 1:901, 1:991, 1:1046, 1:1065, 1:1076 Formac 2. See Pentachloronitrobenzene Formaldehyde, 3:667, 6:1 chemical and physical properties, 3:667-668 exposure assessment, 3:669-670 guidelines of exposure, 3:673 production and use, 3:668-669 toxic effects experimental studies, 3:670-671 human experience, 3:671-672 Formaldehyde bis(2-chloroethyl) acetal. See Di(chloroethyl)formal Formaldehyde bis(\beta-chloroethyl) acetal. See Di(chloroethyl)formal Formaldehyde diethyl acetal. See Ethylal Formaldehyde dimethylacetal. See Methylal Formaldehyde homopolymer. See Polyoxymethylene

Formaldehyde polymer. See Polyoxymethylene Formaldehyde sodium bisulfite addition compound. See Sodium formaldehyde bisulfite Formaldehyde sodium sulfoxylate, 3:683 chemical and physical properties, 3:683 Formaldehyde, urea polymer urea, paraformaldehyde polymer. See Urea-formaldehyde resins Formalin. See Formaldehyde Formalin 40. See Formaldehyde Formalith. See Formaldehyde Formate. See Isoamyl formate Formates, 4:57 Formic acid, 3:473. See Formic acid; Isoamyl formate; Isobutyl formate; Isopropyl formate; Vinyl formate chemical and physical properties, 3:473 exposure assessment, 3:473 guidelines of exposure, 3:477 production and use, 3:473 toxic effects, 3:473 experimental studies, 3:473-476 human experience, 3:476-477 Formic acid butyl ester. See n-Butyl formate Formic acid, chloro-isopropyl ester. See Isopropyl chloroformate Formic acid, chloro-, methyl ester. See Methyl chloroformate Formic acid, chloro-, propyl ester. See Propyl chloroformate Formic acid ethyl ester. See Ethyl formate Formic acid isopropyl ester. See Isopropyl formate Formic acid methyl ester. See Methyl formate Formic acid 1-methylethyl ester. See Isopropyl formate Formic acid propyl ester. See Propyl formate Formic aldehyde. See Formaldehyde Formic ether. See Ethyl formate Formol. See Formaldehyde Formula 300. See Stearic acid p-Formylacetanilide. See p-Acetamidobenzaldehyde 4-Formylacetoanilide. See p-Acetamidobenzaldehyde p-Formyl-N,N-dimethylaniline. See *p*-(Dimethylamino)benzaldehyde 2-Formyl furan. See Furfural Formylic acid. See Formic acid 2-Formylphenol. See Salicylaldehyde *p*-Formyltoluene. See *p*-Tolualdehyde Formyl trichloride. See Chloroform Fortiflex a 60/500. See Polyethylene Fortox. See Pentachloronitrobenzene Forward looking infrared cameras (FLIR), 1:356 Fosfamid. See Dimethoate Fossil fuels, 1:233, 1:567, 1:850, 1:852, 1:865, 1:970 Foster grant 834. See Polystyrene Fouramine. See 2,4-Toluenediamine Fouramine D. See 1,4-Phenylenediamine Fouramine EG. See 3-Aminophenol; m-Aminophenol Fouramine J. See 2,4-Toluenediamine Fouramine OP. See 2-Aminophenol; o-Aminophenol Four-amine P. See 4-Aminophenol Fouramine 2R. See 2-Nitro-1,4-phenylenediamine Fourrine 36. See 2-Nitro-1,4-phenylenediamine Fourrine 57. See 4-Amino-2-nitrophenol Fourrine 65. See 3-Aminophenol

Fourrine 84. See 4-Aminophenol Fourrine 94. See 2.4-Toluenediamine Fourrine Brown PR. See 4-Amino-2-nitrophenol Fourrine Brown Propyl. See 4-Amino-2-nitrophenol Fourrine Brown 2R. See 2-Nitro-1,4-phenylenediamine Fourrine D. See 1,4-Phenylenediamine Fourrine EG. See 3-Aminophenol Fourrine I. See 1,4-Phenylenediamine Fourrine M. See 2,4-Toluenediamine Fourrine P Base. See 4-Aminophenol Fowler's solution, 1:476, 1:488 FPA. See Perfluoroalkoxy copolymer Fpg protein, 6:183 FR 300. See Decabromodiphenyl oxide Fractional crystallization, 1:356 Fractional desynchronization, 6:339 Francium, 1:945 chemical and physical properties, 1:946 Fr 300ba. See Decabromodiphenyl oxide Freedol. See 4-Aminophenol Free erythrocytic protoporphyrin (FEP), 1:405 Free radicals on DNA, 1:6 reactions, 1:659 in response to hyperoxia, 1:985 scavenger, 1:428, 1:996 Freon 21. See Dichlorofluoromethane Freon 112. See 1.1.2.2-Tetrachloro-1.2-difluoroethane Freon 112a. See 1,1,1,2-Tetrachloro-2,2-difluoroethane Freon 114. See 1,2,-Dichloro-1,1,2,2-tetrafluoroethane Freon 141b. See 1,1-Dichloro-1-fluoroethane Freon 143a. See 1,1,1-Trifluoroethane Freon 152a. See 1,1-Difluoroethane Frigol. See White oils Frog embryo teratogenesis assay (FETAX), 1:682 FRP 53. See Decabromodiphenyl oxide FSH. See Follicle-stimulating hormone (FSH) Fuel oil, no. 5. See Kerosene Fuel oil no. 1-D. See Diesel fuel Fuels, diesel. See Diesel fuel Full-scale IQ score, 1:402 Fumagon. See 1,2-Dibromo-3-chloropropane Fumaric acid, 3:574 chemical and physical properties, 3:575 guidelines of exposure, 3:576 production and use, 3:575 toxic effects experimental studies, 3:575-576 human experience, 3:576 Fumaric acid bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) fumarate Fumaric acid, di-n-butyl ester. See n-Dibutyl fumarate Fumaric acid, diethyl ester. See Diethyl fumarate Fumaric acid, diisobutyl ester. See Diisobutyl fumarate Fumaric acid, diisopropyl ester. See Diisopropyl fumarate Fumazone. See 1,2-Dibromo-3-chloropropane Fumazone 86. See 1,2-Dibromo-3-chloropropane Fumed silica. See Amorphous silica Functional residual capacity (FRC), 1:177 Fungiclor. See Pentachloronitrobenzene

Fural. See Furfural Furaldehyde. See Furfural 2-Furaldehyde. See Furfural 2-Furanaldehyde. See Furfural 2-Furan carbinol. See Furfuryl alcohol 2-Furancarbonal. See Furfural 2-Furancarboxaldehyde. See Furfural 2-Furanmethanol. See Furfuryl alcohol Furan polymers/furan resins, 4:1021 Fur Black 41866. See 1,4-Phenylenediamine; p-Phenylenediamine Fur Black R. See 1,4-Phenylenediamine Fur Brown 41866. See 1,4-Phenylenediamine Furfural, 3:710 chemical and physical properties, 3:710 exposure assessment, 3:710 guidelines of exposure, 3:711 production and use, 3:710 toxic effects, 3:710-711 2-Furfural. See Furfural Furfuraldehyde. See Furfural α -Furfuraldehyde. See Furfural Furfuryl alcohol, 4:32 chemical and physical properties, 4:33 exposure assessment, 4:33 workplace methods, 4:33 odor and warning properties, 4:33 production and use, 4:33 standards, regulations, or guidelines of exposure, 4:34 toxic effects, 4:33 acute toxicity, 4:33 carcinogenesis, 4:34 chronic and subchronic toxicity, 4:33, 4:34 experimental studies, 4:33 genetic and related cellular effects studies, 4:34 human experience, 4:34 neurological, pulmonary, and skin sensitization, 4:34 pharmacokinetics, metabolism, and mechanisms, 4:34 Furfuryl alcohol resin, 4:1021 production and use, 4:1021 toxic effects, 4:1022 Furnace black. See Carbon black α -Furole. See Furfural Furro D. See 1,4-Phenylenediamine Furro EG. See 3-Aminophenol Furro P Base. See 4-Aminophenol Fur Yellow. See 1,4-Phenylenediamine 2-Furylcarbinol. See Furfuryl alcohol 2-Furylmethanal. See Furfural Fused silica. See Amorphous silica Futramine D. See 1,4-Phenylenediamine; p-Phenylenediamine Futramine EG. See 3-Aminophenol FYDE. See Formaldehyde GABAergic systems, 1:617

Gadolinium chloride (GD) accumulation in Kupffer cells, 1:831 toxicity, 1:824
Gadolinium gallium garnet (GGG) substrate, 1:822
Gafanol e 200. *See* Polyethylene glycols Gallates, 4:190 Gallic acid, dodecyl ester. See Dodecyl gallate Gallic acid lauryl ester. See Dodecyl gallate Gallic acid, octyl ester. See Octyl gallate Gallic acid, propyl ester. See Propyl gallate Gallium, 1:257 in lung, 1:273 toxicity of, 1:274 Gallium arsenide, 1:267 chemical and physical properties, 1:267-268 exposure assessment, 1:268-269 air, 1:268 background levels, 1:268-269 biomonitoring/biomarkers, 1:269 community methods, 1:269 workplace methods, 1:269 production and use, 1:268 standards, regulations, or guidelines of exposure, 1:278-279 toxic effects, 1:269 carcinogenesis, 1:276 epidemiology studies, 1:278 experimental studies, 1:269 genetic and related cellular effects studies, 1:276 human experience, 1:277-278 neurological, pulmonary, and skin sensitization, 1:276-277 pharmacokinetics, metabolism, and mechanisms, 1:272-275 reproductive and developmental, 1:275-276 Gallium chloride, 1:264 chemical and physical properties, 1:265 exposure assessment, 1:265 production and use, 1:265 studies on environmental impact, 1:267 toxic effects, 1:265 experimental studies, 1:265-266 human experience, 1:266-267 Gallium citrate, 1:261 exposure assessment, 1:261 production and use, 1:261 studies on environmental impact, 1:264 toxic effects, 1:261 carcinogenesis, 1:263-264 chronic and subchronic toxicity, 1:262 experimental studies, 1:261–262 human experience, 1:264 pharmacokinetics, metabolism, and mechanisms, 1:262-263 Gallium-67 citrate, used in medicine, 1:258 Gallium compounds, 1:257 chemical and physical properties, 1:257 exposure assessment, 1:258-260 clinical cases, 1:260 human experience, 1:260 production and use, 1:258 standards, regulations, or guidelines of exposure, 1:260 studies on environmental impact, 1:260-261 Gallium fluoride, 1:279 chemical and physical properties, 1:279 exposure assessment, 1:279 toxic effects, 1:279

epidemiology studies, 1:279 experimental studies, 1:279 human experience, 1:279 Gallium nitrate, 1:283 chemical and physical properties, 1:283 exposure assessment, 1:284 production and use, 1:283 toxic effects, 1:284 acute toxicity, 1:284 carcinogenesis, 1:285-287 chronic and subchronic toxicity, 1:284 clinical cases, 1:286-288 experimental studies, 1:284 human experience, 1:286 pharmacokinetics, metabolism, and mechanisms, 1:284-285 reproductive and developmental, 1:285 Gallium oxide, 1:280 chemical and physical properties, 1:280 exposure assessment, 1:280 biomonitoring/biomarkers, 1:280 community methods, 1:280 production and use, 1:280 toxic effects, 1:280 carcinogenesis, 1:282 distribution, 1:282 excretion, 1:282 experimental studies, 1:280-281 genetic and related cellular effects studies, 1:282 neurological, pulmonary, and skin sensitization, 1:282-283 pharmacokinetics, metabolism, and mechanisms, 1:281-282 reproductive and developmental, 1:282 standards, regulations, or guidelines of exposure, 1:283 Gametotoxicity, 1:401 Gamma-chloropropylene oxide. See Epichlorohydrin Gamma rays, 1:1, 1:5, 1:16, 1:804 Gap junction intercellular communication (GJIC), 6:464 Garox. See Dibenzoyl peroxide Gas black. See Carbon black Gas embolism, 6:299 arterial, diagnosis of, 6:299 treatment for. 6:299 Gasolene. See Gasoline Gasoline, 5:340 chemical and physical properties, 5:341 exposure assessment, 5:341 production and use, 5:341 toxic effects, 5:341 experimental studies, 5:342 Gastrointestinal (GI) complaints, 6:351 Gastrointestinal syndrome, 1:11 Gaultheriaoel. See Salicylates Gaultheria oil. See Salicylates GC 3944-3-4. See Pentachloronitrobenzene y-Dinitrophenol. See 2,5-Dinitrophenol GDME. See Ethylene glycol dimethyl ether Ge-132. See Beta-carboxyethyl germanium sesquioxide Gedex. See Polystyrene Gelvatol 1-30. See Polyvinyl alcohol Genazo Red KB Soln. See 5-Chloro-o-toluidine

Generally recognized as safe (GRAS) substance in food, 1:939 Genetic circadian oscillator system, 6:360 Genetic polymorphisms, 6:455, 6:456 Genetic screening, 6:456 GENE-TOX, 5:59 German Commission, report on MAK for tungsten, 1:596 Germanes (GeH₄), 1:355 halogenated, 1:355 Germanium acute and subacute toxicity, 1:357-359 based transistors, 1:356 biologic requirement, 1:357 chemical and physical properties, 1:355, 1:356t chemical sampling methods and data, 1:357t chronic and subchronic toxicity, 1:359 domestic source, 1:356 exposure assessment, 1:357 biomonitoring/biomarkers, 1:357 genetic and related cellular effects studies, 1:360 hydrides (See Germanes) pharmacokinetics, metabolism, and mechanisms, 1:359-360 production and use, 1:355-357 standards, regulations, guidelines of exposure, 1:361 toxic effects, 1:357-361 experimental studies, 1:357-359 human experience, 1:360-361 Germanium dioxide (GeO₂), causing nephropathy, 1:359, 1:360 Germanium tetrachloride, 1:356-358, 1:356t Germanium tetrahydride, 1:355-357, 1:361 Germany, exposure standards barium, 1:158 bromide, 1:328 cobalt, 1:650 indium usage, 1:289 iodide, 1:328 MAK value, 1:625, 1:720 platinum, **1:**720 radon, 1:797 thallium and its compounds, 1:303, 1:312, 1:316 thallium(I) acetate, 1:333 thallium nitrate, 1:339 U-miners, 1:792t Gestational magnesium deficiency, 1:146 Gettysolve b. See n-Hexane Gettysolve-C. See n-Heptane GFAAS. See Graphite furnace atomic absorption spectrometry GFAP. See Glial fibrillary acidic protein GFR. See Glomerular filtration rate GH 20. See Polyvinyl alcohol Giant axonal swellings, 1:44 Gillebächite. See Wollastonite GL 02. See Polyvinyl alcohol GL 03. See Polyvinyl alcohol Glacial acetic acid. See Acetic acid Glacial acrylic. See Acrylic acid Glial fibrillary acidic protein (GFAP), 1:44, 1:391, 1:396 Globally Harmonized System of Classification and Labeling of Chemicals, 1:662

Global standards, for health and safety European Agency for, 5:23 European Community's framework, 5:23 International Labour Organization, 5:22-523 regulations and guidelines Australia, 5:23-24 Canada, 5:24 Germany, 5:24 Japan, 5:24 The Netherlands, 5:25 Nordic expert group (NEG), 5:25 Poland, 5:24 South Africa, 5:24 United Kingdom, 5:24-25 World Health Assembly, 5:22 Glomerular filtration rate (GFR), 1:198, 1:408, 1:727, 1:728, 1:735, 1:736 Glonoin. See Nitroglycerin Gloria. See White oils Glucose 6-phosphate dehydrogenase (G6PD) deficiency, 1:411 Glucose tolerance factor, 1:571 Glue sniffing, 2:2 Glutaral. See Glutaraldehyde Glutaraldehyde, 3:701 chemical and physical properties, 3:701 exposure assessment, 3:701 guidelines of exposure, 3:704 production and use, 3:701 toxic effects, 3:701-704 Glutaraldehyde disodium bisulfite, 3:704 chemical and physical properties, 3:704 toxic effects, 3:704 Glutaraldehyde solution. See Glutaraldehyde Glutaralum. See Glutaraldehyde Glutardialdehyde. See Glutaraldehyde Glutaric acid dialdehyde. See Glutaraldehyde Glutaric acid diethyl ester. See Glutarates Glutaric aldehyde. See Glutaraldehyde Glutaric dialdehyde. See Glutaraldehyde Glutarol. See Glutaraldehyde Glutathione, 1:479 metabolism, 1:365 production, 1:991 Glutathione-S-transferase (GST), 1:486, 1:735, 2:754, 6:482 Gluteraldehyde. See Glutaraldehyde Glutofix 600. See Hydroxyethyl cellulose; Hydroxyethylcellulose Glycerin(e) diacetate. See Glyceryl diacetate Glycerine tripropionate. See Glyceryl tripropionate Glycerin monoacetate. See Glyceryl monoacetate Glycerin triacetate. See Glyceryl triacetate Glycerin tributyrate. See Glyceryl tributyrate Glycerin tricaprate. See Glyceryl tridecanoate Glycerol acetate, 4:186. See also Glyceryl monoacetate Glycerol diacetate. See Glyceryl diacetate Glycerol 1,3-di(acetate). See Glyceryl diacetate Glycerol epichlorohydrin. See Epichlorohydrin Glycerol esters, 4:192 Glycerol monoacetate. See Glyceryl monoacetate Glycerol nitric acid triester. See Nitroglycerin

Glycerol triacetate. See Glyceryl triacetate Glycerol tributanoate. See Glyceryl tributyrate Glycerol tributyrate. See Glyceryl tributyrate Glyceroltributyrin. See Glyceryl tributyrate Glycerol tricaprate. See Glyceryl tridecanoate Glycerol tricaprin. See Glyceryl tridecanoate Glycerol tricaproate. See Glyceryl trihexanoate Glycerol tricaprylate. See Glyceryl trioctanoate Glycerol tridecanoate. See Glyceryl tridecanoate Glycerol triheptanoate. See Glyceryl triheptanoate Glycerol trihexanoate. See Glyceryl trihexanoate Glycerol triisobutryate. See Glyceryl triisobutyrate Glycerol trinonanoate. See Glyceryl trinonanoate Glycerol trioctanoate. See Glyceryl trioctanoate Glycerol tripelargonate. See Glyceryl trinonanoate Glycerol tripropionate. See Glyceryl tripropionate Glycerol triundecanoate. See Glyceryl triundecanoate Glyceryl acetate. See Glyceryl monoacetate Glyceryl diacetate chemical and physical properties, 4:193 production and use, 4:193 toxic effects, 4:193 experimental studies, 4:193 human experience, 4:193 Glyceryl monoacetate, 4:192 chemical and physical properties, 4:192 production and use, 4:192 studies on environmental impact, 4:193 toxic effects, 4:192 acute toxicity, 4:192 chronic and subchronic toxicity, 4:192 experimental studies, 4:192 genetic and related cellular effects studies, 4:192 pharmacokinetics, metabolism, and mechanisms, 4:192 Glyceryl pelargonate. See Glyceryl trinonanoate Glyceryl triacetate chemical and physical properties, 4:194 odor and warning properties, 4:194 production and use, 4:194 standards, regulations, or guidelines of exposure, 4:195 studies on environmental impact, 4:195 toxic effects, 4:194 acute toxicity, 4:194 chronic and subchronic toxicity, 4:194 experimental studies, 4:194 genetic and related cellular effects studies, 4:195 human experience, 4:195 neurological, pulmonary, skin sensitization, 4:195 reproductive and developmental, 4:195 Glyceryl tributyrate chemical and physical properties, 4:196 odor and warning properties, 4:196 production and use, 4:196 standards, regulations, or guidelines of exposure, 4:197 toxic effects, 4:196 acute toxicity, 4:196, 4:197 carcinogenesis, 4:197 chronic and subchronic toxicity, 4:197 clinical cases, 4:197

epidemiology studies, 4:197 experimental studies, 4:196 genetic and related cellular effects studies, 4:197 human experience, 4:197 pharmacokinetics, metabolism, and mechanisms, 4:197 Glyceryl tricaprate. See Glyceryl tridecanoate Glyceryl tricaproate. See Glyceryl trihexanoate Glyceryl tricaprylate. See Glyceryl trioctanoate Glyceryl tridecanoate, 4:201 chemical and physical properties, 4:202 toxic effects, 4:202 Glyceryl triheptanoate, 4:199 chemical and physical properties, 4:199 toxic effects, 4:199 experimental studies, 4:199 Glyceryl trihexanoate, 4:198 chemical and physical properties, 4:198 experimental studies, 4:199 Glyceryl triisobutyrate, 4:197 chemical and physical properties, 4:198 toxic effects, 4:198 Glyceryl trinitrate. See Nitroglycerin Glyceryl trinonanoate, 4:201 chemical and physical properties, 4:201 Glyceryl trioctanoate, 4:199 chemical and physical properties, 4:200 production and use, 4:200 toxic effects acute toxicity, 4:200 carcinogenesis, 4:200 chronic and subchronic toxicity, 4:200 experimental studies, 4:200 genetic and related cellular effects studies, 4:200 reproductive and developmental, 4:200 Glyceryl tripelargonate. See Glyceryl trinonanoate Glyceryl tripropanoate. See Glyceryl tripropionate Glyceryl tripropionate, 4:195 chemical and physical properties, 4:195 toxic effects, 4:196 acute toxicity, 4:196 chronic and subchronic toxicity, 4:196 experimental studies, 4:196 uses, 4:195 Glyceryl triundecanoate, 4:202 chemical and physical properties, 4:202 toxic effects, 4:203 Glycidal. See Glycidaldehyde Glycidaldehyde, 4:520 chemical and physical properties, 4:521 exposure assessment, 4:521 guidelines of exposure, 4:521 production and use, 4:521 toxic effects experimental studies, 4:521 human experience, 4:521 Glycide. See Glycidol Glycidol, 4:518 chemical and physical properties, 4:519 exposure assessment, 4:519

guidelines of exposure, 4:520 production and use, 4:519 toxic effects experimental studies, 4:519-520 human experience, 4:520 Glycidyl alcohol. See Glycidol Glycidyl allyl ether. See Allyl glycidyl ether Glycidyl butyl ether. See n-Butyl glycidyl ether Glycidyl n-butyl ether. See n-Butyl glycidyl ether Glycidyl chloride. See Epichlorohydrin Glycidyl ether. See Diglycidyl ether Glycidyl ethers, 4:460 Glycidyl 2-ethylhexyl ether. See Ethylhexyl glycidyl ether 1-Glycidyloxy-2-ethylhexane. See Ethylhexyl glycidyl ether Glycidyl phenyl ether. See Phenyl glycidyl ether Glycinol. See Monoethanolamine Glycolaldehyde, 3:673 chemical and physical properties, 3:674 toxic effects, 3:674 (S)-Glycolaldehyde. See Glycolaldehyde Glycol bis(hydroxyethyl)ether. See Triethylene glycol Glycol bromide. See Ethylene dibromide Glycol carbonate. See Ethylene carbonate Glycol chlorohydrin. See 2-Chloroethanol Glycol diacetate. See Ethylene glycol diacetate Glycol dibromide. See Ethylene dibromide Glycoldichloride. See Ethylene dichloride Glycol dimethyl ether. See Ethylene glycol dimethyl ether Glycol dinitrate. See Ethylene glycol dinitrate Glycol epichlorohydrin. See Epichlorohydrin Glycol ethers, 4:646. See Diethylene glycol environmental risk assessment, 4:648-649 genetic toxicity/carcinogenicity, 4:647-648 hematologic effects, 4:647 immunologic effects, 4:647 inhalation exposure, international standards and regulations, 4:678t pharmacodynamic properties, 4:648 physiologically based pharmacokinetic/pharmacodynamic models, 4:648 reproductive/developmental, 4:647 structure-activity, 4:646-647 Glycolic acid butyl ester, butyl glycolate. See Butyl phthalyl butyl glycolate Glycolic acid ethyl ester, methyl phthalate. See Methyl phthalyl ethyl glycolate Glycolic acid, phthalate, dibutyl ester. See Butyl phthalyl butyl glycolate Glycol monoacetate. See Ethylene glycol monoacetate 2 Glycol-monoacetate. See Ethylene glycol monoacetate Glycol monochlorohydrin. See 2-Chloroethanol Glycol monophenyl ether. See Ethylene glycol monophenyl ether Glycolonitrile chemical and physical properties, 2:950t-951t, 2:972 experimental studies, 2:972 exposure standards, 2:972 human experience, 2:972 production and use, 2:972 toxic effects, 2:972

Glycols, 4:595 esters, diesters, and ether esters, 4:838 atmosphere, determination, 4:838 physical and chemical properties, 4:838, 4:839t sources, uses, and industrial exposure, 4:838 toxicology, 4:838-840 physical and chemical properties, 4:596t GLYCOLS 350, 500, 550, 750. See Polyethylene glycol methyl ethers Glycols, nitric acid esters, 4:856 Glycomonochlorohydrin. See 2-Chloroethanol Glycon dp. See Stearic acid Glycon ro. See Oleic acid Glycon s-70. See Stearic acid Glycon s-80. See Stearic acid Glycon s-90. See Stearic acid Glycon tp. See Stearic acid Glycon wo. See Oleic acid Glycophorin A (GPA), 1:738 Glyme. See Ethylene glycol dimethyl ether Glyme-1. See Ethylene glycol diethyl ether Glymol. See White oils Glyoxal, 3:704 chemical and physical properties, 3:704 production and use, 3:704 toxic effects, 3:705 Glyoxylaldehyde. See Glyoxal GM14. See Polyvinyl alcohol GMC. See Carboxymethylcellulose Gohsenol GH 23. See Polyvinyl alcohol Gohsenol GL o5. See Polyvinyl alcohol Gohsenol NM 114. See Polyvinyl alcohol Gold chemical and physical properties, 1:93 clinical cases, 1:100-103 epidemiology studies, 1:103-104 exposure assessment, 1:95-97 human experience, 1:99-100 odor and warning properties, 1:93 production and use, 1:93-95 toxic effects. 1:97 acute toxicity, 1:97 carcinogenesis, 1:99 chronic and subchronic toxicity, 1:97-98 genetic and related cellular effects studies, 1:99 pharmacokinetics, metabolism, and mechanisms, 1:98-99 reproductive and developmental, 1:99 in vitro toxicity, 1:98 Gold chloride, 1:93, 1:98, 1:99, 1:104 Gold cyanidation process, 1:385 Gold nanoparticles, 5:171f Gold potassium chloride, **1**:93t Gold potassium cyanide, 1:95, 1:101 Gold sodium thiomalate, 1:95 Gold sodium thiosulfate, 1:101, 1:103 Golgi apparatus, 1:449 Gout, lead nephrotoxicity and, 1:409 Government neurotoxicity guidelines and standards, 1:36, 1:37

Gp-40-66:120. See Hexachlorobutadiene G6PD deficiency. See Glucose 6-phosphate dehydrogenase (G6PD) deficiency Grain alcohol. See Ethanol Granugen. See Paraffins (waxes) Granulocytopenia, 1:288 Graphite furnace atomic absorption spectrometry (GFAAS), 1:515, 1:517, 1:712 Grasex. See Trichloroacetaldehyde Green cake, 1:772 Green chemistry, 5:43, 5:44 Greenhouse warming potentials (GWPs), 3:359, 3:360t Grignard reagent, 1:146, 1:363 Grisolen. See Polyethylene Groco 2. See Oleic acid Groco 4. See Oleic acid Groco 51. See Oleic acid Groco 6. See Oleic acid Groco 54. See Stearic acid Groco 55. See Stearic acid Groco 58. See Stearic acid Groco 59. See Stearic acid Groco 551. See Stearic acid Ground-glass hepatocytes, 2:955 Group V elements, physicochemical parameters, 1:512t GST. See Glutathione-S-transferase Guaiacol, 3:621 chemical and physical properties, 3:624 exposure assessment, 3:624 guidelines of exposure, 3:624 toxic effects, 3:624 Guideline of health Canada, drinking water exposure studies., 1:788 Guinea pig maximization test (GMT), 1:717 Gum benzoin. See Benzene Guncotton. See Cellulose nitrate Gycerin tricaproate. See Glyceryl trihexanoate Gycerin tridecanoate. See Glyceryl tridecanoate Hafnium (Hf), 1:456 atomic number, atomic weight, and natural isotopes, 1:428t chemical and physical properties, 1:459 chemistry, 1:459 chronic and subchronic toxicity, 1:460 formulations and preparations, 1:459 production and use, 1:459-460 production, flowchart, 1:457f separation process, 1:459 standards, regulations, or guidelines of exposure, 1:460 statistics, 1:457t toxic effects experimental studies, 1:460 human experience, 1:460 Hafnium beryllides chemical and physical properties, 1:458t, 1:463 standards, regulations, or guidelines of exposure, 1:463 Hafnium borides chemical and physical properties, 1:458t, 1:463 standards, regulations, or guidelines of exposure, 1:463

Hafnium borohydride chemical and physical properties, 1:463 standards, regulations, or guidelines of exposure, 1:463 Hafnium carbide chemical and physical properties, 1:458t, 1:464 production and use, 1:464 standards, regulations, or guidelines of exposure, 1:464 Hafnium compounds nonhuman single exposure, 1:467 repeated exposure, 1:467 Hafnium dihydride standards, regulations, or guidelines of exposure, 1:467 toxic effects chronic and subchronic toxicity, 1:466-467 Hafnium dioxide chemical and physical properties, 1:461 standards, regulations, or guidelines of exposure, 1:461 toxic effects chronic and subchronic toxicity, 1:461 experimental studies, 1:461 Hafnium hydride chemical and physical properties, 1:458t, 1:466 standards, regulations, or guidelines of exposure, 1:466 Hafnium nitride chemical and physical properties, 1:458t, 1:466 standards, regulations, or guidelines of exposure, 1:466 Hafnium oxychloride octahydrate acute toxicity, 1:462 chemical and physical properties, 1:458t, 1:462 standards, regulations, or guidelines of exposure, 1:462 toxic effects experimental studies, 1:462 human experience, 1:462 Hafnium sulfate chemical and physical properties, 1:458t, 1:462 standards, regulations, or guidelines of exposure, 1:462 Hafnium sulfide chemical and physical properties, 1:458t, 1:466 standards, regulations, or guidelines of exposure, 1:466 Hafnium tetrabromide chemical and physical properties, 1:458t, 1:465 standards, regulations, or guidelines of exposure, 1:465 Hafnium tetrachloride acute toxicity, 1:461 chemical and physical properties, 1:460 chronic and subchronic toxicity, 1:461 eve irritation, 1:461 skin irritation, 1:461 standards, regulations, or guidelines of exposure, 1:461 toxic effects experimental studies, 1:461 Hafnium tetrafluoride chemical and physical properties, 1:458t, 1:464 production and use, 1:464 standards, regulations, or guidelines of exposure, 1:464 Hafnium tetraiodide chemical and physical properties, 1:458t, 1:465 standards, regulations, or guidelines of exposure, 1:465 Haldane effect, 1:962

Hall effect, 1:497 Halocarbon 13. See Chlorotrifluoromethane Halocarbon 22. See Chlorodifluoromethane Halocarbon 112. See 1,1,2,2-Tetrachloro-1,2-difluoroethane Halocarbon 112a. See 1,1,1,2-Tetrachloro-2,2-difluoroethane Halocarbon 113. See 1,1,2-Trichloro-1,2,2-trifluoroethane Halocarbon 114. See 1,2,-Dichloro-1,1,2,2-tetrafluoroethane Halocarbon 115. See 1-Chloro-1,1,2,2,2-Pentafluoroethane Haloethers, 3:618 toxic effects of, 3:619-620 Halogenated aldehydes physical and chemical properties of, 3:696t toxic effects of, 697t-698t Halogenated alkyl ethers, 3:614 Halogenated benzenes, 3:323, 3:326 chemical and physical properties, 3:326, 3:354 guidelines of exposure, 3:329 production and use, 3:326, 3:354 toxic effects experimental studies, 3:326-327 human experience, 3:327 Halogenated biphenyls, 3:247 Halogenated phosphate esters, 4:392 Halon 11. See Trichlorofluoromethane Halon 1011. See Methylene chlorobromide Halon 10001. See Methyl iodide Hampene. See Ethylenediaminetetraacetic acid Hand-arm vibration (HAV), 6:269 Hand-arm vibration syndrome (HAVS), 6:269 Hand-transmitted vibration, health effects from, 6:269 classification and staging of severity, 6:274-275 Griffin or blanching score, 6:275f Stockholm Workshop Scale, 6:274t, 6:275t diagnosis, 6:273-275 dose-response relationships, 6:275-276 history, 6:270-271 Raynaud's phenomenon, 6:270 Taylor-Pelmear scale, 6:271 vibration white finger (VWF), 6:270 occupations and tools, 6:269-270 pathophysiology, 6:272-273 pneumatic tools, 6:270 symptoms, 6:271-272 blanching attack across all fingers, 6:271f neurological, 6:271 vascular presentation, 6:271f Hard coal. See Coal Hardwoods. See Wood dust Hazard identification, 5:92t Hazardous air pollutant (HAP), 2:708 Haz-Map, 5:62 Hb–CO affinity, 1:954 11H-Benz[b,c]aceanthrylene, 5:386 chemical and physical properties, 5:386 toxic effects, 5:386 11H-Benzo[a]carbazole, 5:418 7H-Benzo[c]carbazole, 5:418 1H-Benzo[a]cyclopent[h]anthracene, 2,3-dihydro-. See 5,6-Cyclopenteno-1,2-benzanthracene

HBO₂ chamber, 6:292 HBsAb avidity, 1:529 9H-carbazole. See Carbazole HCBD. See Hexachlorobutadiene HCE. See Hexachloroethane HCFC 21. See Dichlorofluoromethane HCFC 22. See Chlorodifluoromethane HCFC 123. See also 1,1-Dichloro-2,2,2-trifluoroethane benign tumors in rats exposed, 3:386t HCFC 124. See 1-Chloro-1,2,2,2-tetrafluoroethane HCFC 132b. See 1,2-Dichloro-1,1-difluoroethane HCFC 133a. See 1-Chloro-2,2,2-trifluoroethane HCFC 141b. See 1,1-Dichloro-1-fluoroethane HCFC 142b. See 1-Chloro-1,1-difluorodifluroethane HCHO. See Formaldehyde 4H-Cyclopenta[def]chrysene, 5:395 chemical and physical properties, 5:396 toxic effects, 5:396 HDDGE. See Hexanediol diglycidyl ether 13H-Dibenzo[a,g]fluorene, 5:405 chemical and physical properties, 5:405 exposure assessment, 5:405 guidelines of exposure, 5:405 production and use, 5:405 HDPEULDPE. See Polyethylene Health effects of power line fields, 6:113 adult exposure to magnetic fields and cancer, 6:114-115 animal studies of ELF and RF EMF and cancer, 6:114-115 childhood leukemia, 6:113-114 forms of. 6:114 Health effects, of radionuclides, 1:15, 1:16 Health effects of RF, 6:118 cancer and AM/FM radio/mobile phone (cell) towers, 6:118 damage to sperm, 6:122 Hearing loss, 6:311 Hearing sensitivity, 6:81 frequency domain, 6:81 intensity and sound pressure, 6:81-82 Heat acclimatization, 6:65-66, 6:70 Heat, as unique stressor, 6:37 Heat balance, 6:14 Heat exchanged process, 6:14, 6:44 convective heat exchange, 6:49-50 passive and forced convection, 6:50 roles of convection, 6:50-51 estimated test temperature changes, 6:47t forced convection, importance of, 6:51-52 heat exchange by infrared radiation, 6:52-54 heat loss by evaporation, 6:54 atrichial sweat gland, 6:54 importance of sweating, 6:54-55 metabolic heat production, 6:45-46 perceptions for cold and hot, 6:47-48 by thermal conduction, 6:46-47 thermal conduction and convection, 6:51 Heat index, 6:55 Heating fires, 6:400 Heating oils, 5:351 chemical and physical properties, 5:351

production and use, 5:351 toxic effects, 5:351-352 Heat in life processes, role of, 6:38-39 Heat-shock protein, 1:990 Heat shock proteins, 6:101 Heat strain, 6:59-60 dehydration and loss of body electrolytes, 6:62 early warning signs and symptoms, 6:64 increased heart rate, 6:64-65 visible sweating, 6:64 exercise-induced heat exhaustion, 6:60-61 factors affecting, 6:66 age, 6:66 hydration, and osmolarity, 6:67-69 older people, 6:66-67 young, 6:66 fluid replacement guidelines, 6:70t heatstroke, 6:62 heat syncope, 6:60-61 indicators of, 6:64 personal monitoring and predictive models, 6:60 predictors, failure of, 6:63-64 systemic arterial blood pressure, 6:61f Heat stress and strain, evaluation, 6:38, 6:55 Heat stress index, 6:57-59, 6:58t calculations, 6:58t Heatstroke, 6:62 environmentally induced (classical) heatstroke, 6:62 exercise-induced heatstroke, 6:62-63 sequelae, 6:63 signs and symptoms, 6:63 Heat-treating oil. See White oils HEC. See Hydroxyethylcellulose HEC-AL 5000. See Hydroxyethylcellulose HEDP. See Hydroxyethylenediphosphonate dioxygenase (HEDP) HeLa cells, 1:360 HELA S3 cells, 2:707 Heliotropine. See Piperonal Helium tremors, 6:300-301 Heloxy wc68. See Neopentyl glycol diglycidyl ether Hemellitol. See Hemimellitene Heme oxygenase, 1:479 heme oxygenase 1 (HO-1), 1:535 Heme-protein interactions, 1:363 Heme synthesis impairment, 1:405 lead effects, schematic presentation, 1:389f Hemimellitene, 2:191 Hemiterpene. See 2-Methyl-1,3-butadiene Hemosiderosis, 1:641 Hendecane. See Undecane n-Hendecane. See Undecane Hendecanoic acid. See Undecylic acid Hendecenoic acid. See Undecylenic acid 10-Hendecenoic acid. See Undecylenic acid Henle's loop, 1:360 Henry's law constant, 2:709, 2:746, 2:749, 2:750, 2:759, 2:770, 2:771 HEOD. See Dieldrin

Hepatic aldehyde dehydrogenase inhibitor, 2:957 Hepatic cadmium-metallothionein (Cd-MT), 1:194 Hepatic drug metabolizing enzyme system, 2:752 Hepatic porphyrinuria, 1:479 Hepatocellular carcinomas, 2:741 Hepatocyte DNA-repair test, 2:745 Hepatosplenomegaly, 1:169 Heptachlor, 3:449 chemical and physical properties, 3:450 environmental impact, studies, 3:452 exposure assessment, 3:450 guidelines of exposure, 3:452 production and use, 3:450 toxic effects, 3:450 experimental studies, 3:450-452 human experience, 3:452 1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7methanoindene. See Heptachlor 1-Heptadecanecarboxylic acid. See Stearic acid 1-Heptadecanecarboxylic acid, n-octadecanoate. See Stearic acid 1,1,1,2,3,3,3-Heptafluoropropane, 3:408 chemical and physical properties, 3:408-409 exposure assessment, 3:409 guidelines of exposure, 3:409 production and use, 3:409 toxic effects experimental studies, 3:409 human experience, 3:409 Heptaldehyde. See n-Heptaldehyde n-Heptaldehyde, 3:682 chemical and physical properties, 3:682 Heptamethylene. See Cycloheptane Heptanal. See n-Heptaldehyde n-Heptanal. See n-Heptaldehyde Heptanaldehyde. See n-Heptaldehyde n-Heptanaldehyde. See n-Heptaldehyde 2-Heptanamine. See 2-Aminoheptane Heptane potential occupational exposures, 5:340t *n*-Heptane, **2:**32, **2:**34 chemical and physical properties, 2:32 epidemiology studies, 2:34 exposure assessment, 2:32 guidelines of exposure, 2:34 occupational exposure limits, 2:34 production and use, 2:32 toxic effects, 2:33 1-Heptaneamine. See 1-Aminoheptane 1-Heptanecarboxylic acid. See Caprylic acid 2-Heptanecarboxylic acid. See 2-Ethylhexanoic acid 1,7-Heptanedicarboxyic acid. See Azelaic acid 1,7-Heptanedioic acid. See Pimelic acid Heptane-1,7-dioic acid. See Pimelic acid Heptane-4-one. See Di-n-propyl Ketone Heptanoic acid, 3:491 chemical and physical properties, 3:492 exposure assessment, 3:492 guidelines of exposure, 3:493 production and use, 3:492

toxic effects, 3:492 experimental studies, 3:492 human experience, 3:493 Heptanoic acid, 1,2,3-propanetriyl ester. See Glyceryl triheptanoate Heptanoin, tri-; propane-1,2,3-triyl trisheptanoate. See Glyceryl triheptanoate 1-Heptanol, 4:3 chemical properties, 4:3 physical properties, 4:3 production and use, 4:3 standards, regulations, or guidelines of exposure, 4:3 toxic effects, 4:3 acute toxicity, 4:3 chronic and subchronic toxicity, 4:3 experimental studies, 4:3 human experience, 4:3 pharmacokinetics, metabolism, and mechanisms, 4:3 n-Heptanol. See 1-Heptanol Heptanols, 4:3 2-Heptanone. See Methyl n-amyl ketone Heptan-2-one. See Methyl n-amyl ketone 3-Heptanone. See Ethyl n-butyl ketone Heptan-3-one. See Ethyl n-butyl ketone 4-Heptanone. See Di-n-propyl Ketone 1-Heptene chemical and physical properties, 2:63 exposure assessment, 2:63 guidelines of exposure, 2:63 production and use, 2:63 toxic effects, 2:63 n-Heptene. See 1-Heptene 2-Heptenoic acid, 3:549 chemical and physical properties, 3:549 production and use, 3:550 toxic effects experimental studies, 3:550 α -Heptilene. See 1-Heptene Heptoic acid. See Heptanoic acid Heptyl alcohol. See 1-Heptanol n-Heptyl alcohol. See 1-Heptanol n-Heptyl aldehyde. See n-Heptaldehyde Heptylamine. See 1-Aminoheptane 2-Heptylamine. See 2-Aminoheptane n-Heptylamine. See 1-Aminoheptane Heptyl carbinol. See 1-Octanol Heptyl hydride. See n-Heptane n-Heptylic acid. See Heptanoic acid Heptyl mercaptan, 4:1050 animal and human studies, 4:1050 chemical and physical properties, 4:1050 Heritable effects, of ionizing radiation, 1:11, 1:12 Hetastarch. See Hydroxyethylcellulose Heterocyclic aldehydes, 3:706 Heterocyclic aromatic amines, 2:688 Hevyteck. See White oils Hex. See n-Hexane Hexabenzobenzene. See Coronene Hexabromocyclododecane (HBCD), 5:37

Hexachlorobenzene, 3:344 chemical and physical properties, 3:345 guidelines of exposure, 3:353 production and use, 3:345 subchronic toxicities of, 3:346 toxic effects experimental studies, 3:345-352 human experience, 3:352-353 Hexachlorobutadiene, 3:153 chemical and physical properties, 3:154 environmental impact, studies, 3:159-160 exposure assessment, 3:154-155 guidelines of exposure, 3:159 production and use, 3:154 toxic effects, 3:155 experimental studies, 3:155-158 human experience, 3:158-159 1,3-Hexachlorobutadiene. See Hexachlorobutadiene Hexachloro-1,3-butadiene. See Hexachlorobutadiene Hexachlorobuta-1,3-diene. See Hexachlorobutadiene Hexachlorocyclohexane, gamma isomer. See Lindane 1,2,3,4,5,6-Hexachlorocyclohxane. See Lindane Hexachlorodiphenyl oxide. See Chlorinated diphenyl oxide Hexachloroepoxyoctahydro-endo,exo-dimethanonaphthalene. See Dieldrin Hexachloroethane, 3:89 chemical and physical properties, 3:89 exposure assessment, 3:89-90 guidelines of exposure, 3:93 production and use, 3:89 toxic effects, 3:90 experimental studies, 3:90-93 human experience, 3:93 1,1,1,2,2,2-Hexachloroethane. See Hexachloroethane Hexachloroethylene. See Hexachloroethane 1,1,2,3,4,4-Hexachloro-1,3-hexachlorobutadiene. See Hexachlorobutadiene Hexachlorohexahydro-endo. See Aldrin Hexachlorophenyl ether. See Chlorinated diphenyl oxide Hexachloroplatinate, bronchospasmic activity, 1:717 Hexadecane. 2:48 chemical and physical properties, 2:48 exposure assessment, 2:48 guidelines of exposure, 2:49 production and use, 2:48 toxic effects. 2:48 n-Hexadecane. See Hexadecane Hexadecanoic acid. See Palmitic acid Hexadecanol. See C₁₆ Alcohols 1-Hexadecanol. See C16 Alcohols Hexadecan-1-ol. See C16 Alcohols Hexadecyl alcohol. See C₁₆ Alcohols Hexadecylic acid. See Palmitic acid n-Hexadecyl mercaptan, 4:1054 animal and human studies, 4:1054 chemical and physical properties, 4:1054 Hexadecylmethylenediamine, 2:487 guidelines of exposure, 2:488 production and use, 2:488

toxic effects, 2:488 2,4-Hexadienal. See Hexa-2,4-dienal Hexa-2,4-dienal, 3:705 chemical and physical properties, 3:705 toxic effects, 3:705 2,4-Hexadien-1-al. See Hexa-2,4-dienal (E,E)-2,4-Hexadienal. See Hexa-2,4-dienal (E,E)-2,4-Hexadien-1-al. See Hexa-2,4-dienal trans, trans-2, 4-Hexadienal. See Hexa-2, 4-dienal trans, trans-2, 4-Hexadien-1-al. See Hexa-2, 4-dienal trans, trans-4-Hexadienal. See Hexa-2, 4-dienal Hexadienoic acid. See Sorbic acid 2,4-Hexadienoic acid. See Sorbic acid Hexa-2,4-dienoic acid. See Sorbic acid (E,E)-2,4-Hexadienoic acid. See Sorbic acid trans, trans-2,4-Hexadienoic acid. See Sorbic acid Hexadienoic acid (E,E). See Sorbic acid 2-(2,4-Hexadienyloxy)ethanol. See Ethylene glycol mono-2,4hexadiene ether 1,1,1,3,3,3-Hexafluoropropane, 3:409 chemical and physical properties, 3:410 environmental impact, studies, 3:411 exposure assessment, 3:410 guidelines of exposure, 3:411 production and use, 3:410 toxic effects experimental studies, 3:410-411 human experience, 3:411 Hexagonal germanium dioxide, 1:358 neurotoxicity, 1:358 Hexahydroaniline. See Cyclohexylamine Hexahydrobenzenamine. See Cyclohexylamine Hexahydrobenzene. See Cyclohexane Hexahydrocresols. See Methylcyclohexanol Hexahydromethyl phenol. See Methylcyclohexanol Hexahydrophenol. See Cyclohexanol Hexahydrophthalic acid diglycidyl ester, 4:511 chemical and physical properties, 4:511 exposure assessment, 4:511 guidelines of exposure, 4:512 production and use, 4:511 toxic effects experimental studies, 4:511–512 human experience, 4:512 Hexahydrotoluene. See Methylcyclohexane Hexahydro-1,3,5-trinitro-1,3,5-triazine. See Cyclotrimethylenetrinitramine Hexahydro-1,3,5-trinitro-s-triazine. See Cyclotrimethylenetrinitramine Hexaldehyde. See Hexanal Hexalin. See Cyclohexanol Hexalin acetate. See Cyclohexyl acetate Hexamethyl disiloxane, 4:416 chemical and physical properties, 4:416 production and use, 4:416 studies on environmental impact, 4:417 toxic effects, 4:416 acute toxicity, 4:416 chronic and subchronic toxicity, 4:416, 4:417
CUMULATIVE SUBJECT INDEX, VOLUMES 1–6 611

human experience, 4:417 pharmacokinetics, metabolism, and mechanisms, 4:417 reproductive and developmental, 4:417 1,1,1,3,3,3-Hexamethyldisiloxane. See Hexamethyl disiloxane Hexamethylene. See Cyclohexane Hexamethylenediamine, 2:486 chemical and physical properties, 2:486 guidelines of exposure, 2:487 production and use, 2:487 toxic effects, 2:487 1,6-Hexamethylenediamine. See Hexamethylenediamine Hexamethylene-dicarboxylic acid. See Suberic acid Hexamethylenetetramine carcinogenesis, 2:743 chemical and physical properties, 2:742 environmental impact studies, 2:744 exposure assessment, 2:743 exposure standards, 2:744 genetic and cellular effects, 2:743-744 odor and warning properties, 2:742 pharmacokinetics, metabolism, and mechanisms, 2:743 production and use, 2:742 reproductive and developmental effects, 2:743 toxic effects acute toxicity, 2:743 experimental studies, 2:743-744 human experience, 2:744 subchronic and chronic toxicity, 2:743 Hexanal, 3:674 chemical and physical properties, 3:674 exposure assessment, 3:674 production and use, 3:674 toxic effects experimental studies, 3:674-675 1-Hexanal. See Hexanal n-Hexanal. See Hexanal 1-Hexanamine. See 2-Ethylhexylamine; n-Hexylamine Hexanaphthene. See Cyclohexane Hexane. See n-Hexane potential occupational exposures, 5:340t n-Hexane, 2:2, 2:24 chemical and physical properties, 2:24 exposure assessment, 2:24 guidelines of exposure, 2:28-29 neurotoxicity studies, in human, 2:28 occupational exposure limits, 2:29 production and use, 2:24 subchronic toxicity studies in animals, 2:26 toxic effects, 2:25 *n*-Hexane, 1:58 1-Hexanecarboxylic acid. See Heptanoic acid Hexanedial. See Adipaldehyde 1,6-Hexanedial. See Adipaldehyde Hexane-1,6-dial. See Adipaldehyde 1,6-Hexanediamine. See Hexamethylenediamine 1,6-Hexanedicarboxylic acid. See Suberic acid Hexanedioic acid. See Adipic acid; Butylene glycol adipic acid polyester 1,6-Hexanedioic acid. See Adipic acid

Hexanedioic acid, bis(2-butoxyethyl) ester. See Dibutoxyethyl adipate Hexanedioic acid, bis (2-(2-ethylbutoxy)ethyl) ester. See Di-2-(2-ethylbutoxy)ethyl adipate Hexanedioic acid, bis (2-hexyloxy)ethyl ester. See Di(2-hexyloxyethyl) adipate Hexanedioic acid, bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) adipate Hexanedioic acid, dibutyl ester. See n-Dibutyl adipate Hexanedioic acid, didecyl ester. See n-Didecyl adipate Hexanedioic acid di-2-(2-ethylbutoxy)ethyl ester. See Di-2-(2-ethylbutoxy)ethyl adipate Hexanedioic acid, di-2-ethylbutyl ester. See Di(2-ethylbutyl) adipate Hexanedioic acid, diethyl ester. See Diethyl adipate Hexanedioic acid di(2-hexyloxy)ethyl) ester. See Di(2-hexyloxyethyl) adipate Hexanedioic acid, diisonoyl ester. See Diisononyl adipate Hexanedioic acid, diisooctyl ester. See Diisooctyl adipate Hexanedioic acid dimethyl ester. See Dimethyl adipate Hexanedioic acid, dioctyl ester. See n-Dioctyl adipate Hexanedioic acid, isononyl ester. See Diisononyl adipate Hexanediol diglycidyl ether, 4:472 chemical and physical properties, 4:473 exposure assessment, 4:473 guidelines of exposure, 4:474 production and use, 4:473 toxic effects experimental studies, 4:473-474 human experience, 4:474 2,5-Hexanedione, 3:837 chemical and physical properties, 3:837-838 environmental impact, studies, 3:842 exposure assessment, 3:838-839 guidelines of exposure, 3:842 production and use, 3:838 toxic effects, 3:839 experimental studies, 3:839-841 human experience, 3:841-842 2,2'-[Hexane-1,6-diylbis(oxymethylene)]dioxirane. See Hexanediol diglycidyl ether *n*-Hexane neuropathy, 1:36 Hexanoic. See Caproic acid Hexanoic acid. See Caproic acid 1-Hexanoic acid. See Caproic acid Hexanoic acid ethyl ester. See Ethyl caproate Hexanoic acid, 1,2,3-propanetriyl ester. See Glyceryl trihexanoate Hexanoin, tri-; palmitic acid triglyceride. See Glyceryl trihexanoate Hexanol. See C₆ Oxo alcohols 1-Hexanol, 3:963 chemical and physical properties, 3:963 exposure assessment, **3:**964 guidelines of exposure, 3:965 production and use. 3:964 toxic effects experimental studies, 3:964 human experience, 3:964-965 2-Hexanol, 3:968-969 Hexan-2-ol. See 2-Hexanol

1-Hexanol, 2-ethyl-, sebacate. See Di(2-ethylhexyl) sebacate Hexanols. 3:963 2-Hexanone. See Methyl n-butyl ketone Hexan-2-one. See Methyl n-butyl ketone Hexazinone, 2:854 chemical and physical properties, 2:855 exposure assessment, 2:855 production and use, 2:855 toxic effects, 2:855-857 Hexenal, 3:693 chemical and physical properties, 3:694 production and use, 3:694 toxic effects, 3:694 Hex-2-enal. See Hexenal (E)-2-Hexenal. See Hexenal trans-2-Hexenal. See Hexenal Hexene. See 1-Hexene Hexene-1. See 1-Hexene 1-Hexene chemical and physical properties, 2:62 exposure assessment, 2:62 guidelines of exposure, 2:62 production and use, 2:62 toxic effects, 2:62 Hex-1-ene. See 1-Hexene 1-n-Hexene. See 1-Hexene (E)-2-Hexenoic acid. See trans-2-Hexenoic acid trans-2-Hexenoic acid. 3:546 chemical and physical properties, 3:546 production and use, 3:546 toxic effects experimental studies, 3:546-547 Hexenoic acid, trans-2-. See trans-2-Hexenoic acid 4-Hexen-1-ol, 1,5 dimethyl-1-vinyl-, cinnamate; linalyl 3phenylpropenoate. See Linayl Cinnamate Hexite smoke (ZnCl₂) exposure, 1:182 Hexogen. See Cyclotrimethylenetrinitramine Hexoic acid. See Caproic acid n-Hexoic acid. See Caproic acid Hexoic aldehyde. See Hexanal Hexolite. See Cyclotrimethylenetrinitramine Hexone. See Methyl isobutyl ketone Hexyl acetate. See Hexyl acetates 1-Hexyl acetate. See Hexyl acetates sec-Hexyl acetate, 4:87 chemical and physical properties, 4:87 exposure assessment, 4:88 workplace methods, 4:88 odor and warning properties, 4:88 production and use, 4:88 standards, regulations, or guidelines of exposure, 4:88 toxic effects, 4:88 acute toxicity, 4:88 clinical cases. 4:88 experimental studies, 4:88 human experience, 4:88 n-Hexyl alcohol. See 1-Hexanol sec-Hexyl alcohol. See Methyl isobutyl carbinol Hexyl alcohol, acetate. See Hexyl acetates

n-Hexyl aldehyde. See Hexanal n-Hexylamine, 2:469 chemical and physical properties, 2:469 guidelines of exposure, 2:469 production and use, 2:469 toxic effects, 2:469 Hexyl benzoate, 4:159 chemical and physical properties, 4:159 odor and warning properties, 4:159 production and use, 4:159 toxic effects, 4:159 experimental studies, 4:159, 4:160 human experience, 4:160 n-Hexyl benzoate. See Hexyl benzoate 1-Hexyl benzoate hexylester kyseliny bensoove [Czech]. See Hexyl benzoate Hexyl carbitol. See Diethylene glycol mono-n-hexyl ether Hexyldecanol. See C16 Alcohols Hexylene. See 1-Hexene 1,6-Hexylenediamine. See Hexamethylenediamine Hexylene glycol. See 2-Methyl-2,4-pentanediol Hexylene glycol diacetate. See 2-Methyl-2,4-pentanediol diacetate Hexyl ester of acetic acid. See Hexyl acetates n-Hexyl ethanoate. See Hexyl acetates n-Hexyl-1-hexanamine. See Dihexylamine Hexyl hydride. See n-Hexane Hexylic acid. See Caproic acid n-Hexylic acid. See Caproic acid Hexyl mercaptan, 4:1049 animal and human studies, 4:1049-1050 chemical and physical properties, 4:1049 Hexyl methyl ketone. See 2-Octanone 2-(Hexyloxy)ethanol. See Ethylene glycol mono-n-hexyl ether 2-(2-(2-Hexyloxy)ethoxy)ethanol. See Diethylene glycol mono-nhexyl ether n-Hexyloxyethoxyethanol. See Diethylene glycol mono-n-hexyl ether Hexynol, 4:42 chemical and physical properties, 4:42 odor and warning properties, 4:42 production and use, 4:42 toxic effects, 4:42 acute toxicity, 4:42 clinical cases, 4:42 experimental studies, 4:42 human experience, 4:42 1-Hexyn-3-ol. See Hexynol HFA 32. See Difluoromethane HFA 125. See Pentafluoroethane HFA 134a. See 1,1,1,2-Tetrafluoroethane HFA 227ea. See 1,1,1,2,3,3,3-Heptafluoropropane HFC 32. See Difluoromethane HFC 125. See Pentafluoroethane HFC 134a. See 1.1.1.2-Tetrafluoroethane HFC 143a. See 1,1,1-Trifluoroethane HFC 152a. See 1,1-Difluoroethane HFC 227ea. See 1,1,1,2,3,3,3-Heptafluoropropane HFC 236fa. See 1,1,1,3,3,3-Hexafluoropropane HFC 245ea. See 1,1,2,3,3-Pentafluoropropane

2H-heptafluoropropane. See 1,1,1,2,3,3,3-Heptafluoropropane 2,4(1H,3H)-Pyrimidinedione, 5-bromo-6-methyl-3-(1methylpropyl)-. See Substituted uracils Hibrom. See Naled High-altitude cerebral edema (HACE), 1:984 High-carbon steels, 1:639 High dispersion spectrography, 1:541 Higher glycerides, 4:190 High-LET radiation, 1:3, 1:10, 1:13 High-performance liquid chromatography (HPLC) analyses, 1:364, 1:448, 1:478, 1:616, 1:725, 2:706, 2:739, 2:982 High-performance thin-layer chromatographic methods, 2:738 High pressure liquid chromatography (HPLC), 4:530 High-pressure nervous syndrome (HPNS), 6:300 High production volume (HPV) chemicals, 1:363 High-resolution computed tomography (HRCT), 1:243, 1:244, 1:291, 1:292, 1:595 High-resolution magnetic-sector field mass spectrometers, 1:774 High-temperature aerospace technology, 1:443 High-temperature spray paint, 1:660 High-temperature superalloys, 1:626 High-voltage waves, 2:737 Hill's modified criteria, 5:96t Hiltonil Fast Blue B Base. See 3,3'-Dimethoxybenzidine Hiltonil Fast Orange GR Base. See 2-Nitroaniline; o-Nitroaniline Hiltonil Fast Orange R Base. See 3-Nitroaniline; m-Nitroaniline Hiltonil Fast Red 3GL Base. See 4-Chloro-2-nitroaniline Hiltonil Fast Red KB Base. See 5-Chloro-o-toluidine Hiltonil Fast Scarlet G Base. See 5-Nitro-o-toluidine Hiltonil Fast Scarlet GC Base. See 5-Nitro-o-toluidine Hiltonil Fast Scarlet G Salt. See 5-Nitro-o-toluidine Hiltosal Fast Orange GR Salt. See 2-Nitroaniline; o-Nitroaniline Hiltosal Fast Red 3GL Salt. See 4-Chloro-2-nitroaniline Hindasol Orange GR Salt. See 2-Nitroaniline; o-Nitroaniline HIPS. See Polystyrene Histamine H2 antagonist, 1:497 Histidinoalanine, 1:449 HIV-1, environmental survival of, 5:538t HMDA. See Hexamethylenediamine HMDSO. See Hexamethyl disiloxane HMOX-heme complex, 1:950 HMX. See Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine HOCH. See Formaldehyde Hoechst wax pa 520. See Polyethylene Homeostatic mechanisms, 1:641 Homeothermia, 6:101 Homopolymer. See Polyvinyl alcohol Hormone replacement therapy (HRT), 1:904 Hospex. See Glutaraldehyde Hostalen. See Polyethylene Host-mediated assay, 2:726, 2:733, 2:768 Hostyren n. See Polystyrene Hours-of-service (HOS), 5:12 1992 Housing and Community Development Act, 1:386, 1:413 hoxc6 and hoxa6 genes, 1:899 (3)H piperidine, intraperitoneal dose, 2:733

HFC 245fa. See 1,1,1,3,3-Pentafluoropropane

HHDN. See Aldrin

HPLC analyses. See High-performance liquid chromatography (HPLC) analyses HPV chemicals. See High production volume (HPV) chemicals 1H-Pyrazolium, 1,2-dimethyl-3,5-diphenyl-. See Quaternary herbicides 2(1H)-Pyridinethione, 1-hydroxy-, sodium salt. See Pyridinethione HRCT. See High-resolution computed tomography HSDB 203. See Propyl paraben HSDB 208. See Benzyl benzoate HSDB 309. See Dibutyl sebacate HSDB 359. See Benzyl cinnamate HSDB 585. See Glyceryl triacetate HSDB 591. See Propyl gallate HSDB 878. See Glyceryl tributyrate HSDB 938. See Ethyl paraben HSDB1008. See Methyl o-aminobenzoate HSDB 1184. See Methyl paraben HSDB 1563. See n-Dibutyl succinate HSDB 1935. See Ethyl salicylate; Salicylates HSDB 2089. See Butyl benzoate HSDB 2131. See Diethyl oxalate HSDB 2198. See Propyl p-aminobenzoate HSDB 2859. See Di(2-ethylhexyl) azelate HSDB 2898. See Di(2-ethylhexyl) sebacate HSDB 4245. See Butyl p-aminobenzoate HSDB 4285. See Glyceryl monoacetate HSDB 5283. See Methyl benzoate HSDB 5481. See Di(2-ethylhexyl) maleate HSDB 5722. See Diethyl fumarate HSDB 5904. See Dibutyl azelate HSDB 6031. See Hexyl benzoate HSDB 3065 aerosol OT. See Dioctyl sodium sulfosuccinate HT 972. See 4,4'-Methylenedianiline Hueper's polymer no. 5. See Polyvinylpyrrolidone (PVP) Human carcinogen, 6:470 hazard identification for, 6:469 Human chorionic gonadotropin, 1:726 Human embryo lung fibroblast cell line, 1:672 Human equivalent concentration (HEC), 5:100 Human equivalent dose (HED), 6:480 Human exposure levels, 6:481 Human eye, 6:185 age-related macular degeneration, 6:191 Amsler grid test, 6:187 cataracts, 6:189, 6:191-192 infrared cataract, 6:218 climatic droplet keratopathy (CDK), 6:191 cystoid macular edema (CME), 6:182 dry-eye, 6:188 flash blindness, 6:188 glare, types, 6:196 photic maculopathy, 6:188 photoconjunctivitis, 6:189 photokeratitis, 6:188 photoreceptors in retina, 6:186 reduced visual acuity, 6:187 relative retinal irradiances for staring directly at various light sources, 6:224 retinal damage, 6:187, 6:196

Human eye (Continued) solar retinopathy, 6:187 thermal injury, 6:198 ultraviolet radiation, effect of, 6:188 Human-occupied chambers, 6:290 Human performance rhythms characteristics of, 6:341-343 combined work stressors, surveillance, 6:369 existing medical disorders, exacerbation asthma, 6:362 diabetes mellitus, 6:361-362 epilepsy, 6:362 general chronobiological considerations, 6:361 medical screening and surveillance gender, 6:367 interindividual differences and shiftwork tolerance, 6:364 melatonin rhythm, 6:367 physical fitness, 6:366-367 shiftwork/aging workers, 6:365-366 sleep requirements, 6:366 temperament/shiftwork tolerance, 6:366 medical surveillance, 6:368-369 night work, performance, 6:346 field studies, 6:346-348 public disasters, 6:348-349 real-work (field) studies, limitations, 6:346 transportation incidents, 6:349 preplacement assessment, 6:367-368 shiftwork, and long-term health effects, 6:351 cancer, 6:359-361 cardiovascular disease, 6:353-355 diabetes mellitus type II, 6:356-357 fetal loss and spontaneous abortion, 6:358-359 gastrointestinal disorders, 6:352-353 mechanistic considerations, 6:355-356 metabolic syndrome, cardiovascular disease, and diabetes mellitus, 6:353 preterm births and low birth weight, 6:357-358 reproductive health, 6:357 subfecundity, 6:359 shiftwork, and mental health depression, 6:363-364 occupational stress, 6:363 psychosocial disruption, 6:363 shiftwork and sleep, 6:343 chronic sleep deprivation, 6:344-345 early starting times and sleep deprivation, 6:345 night work, 6:343-344 sleepiness and sleeping on job, 6:345-346 shiftwork, health desynchronosis, 6:349-350 shiftwork intolerance, 6:350-351 sleep deprivation, 6:351 Human plasma melatonin, graph of, 6:338f Human respiratory tract structure and function, 5:72f Human Respiratory Tract Model (HRTM), for uranium compound, 1:782

Human skin antioxidants, role of, 6:191 cancers, types of, 6:192 carcinogenic action spectrum for, 6:193 cutaneous malignant melanoma, 6:193 erythemal effectiveness (EE), calculation, 6:190 for IR exposure, tolerance limits, 6:190 minimal erythemal dose, 6:190 nonmelanoma skin cancers, 6:192 noxious stimulation, 6:189 skin temperature, 6:189 sun allergy, 6:190 thermal injury to, 6:190, 6:198 ultraviolet radiation, effect of, 6:190 variables, implicated in development of NMSC, 6:193 Human sperm viability, 1:719 Humko industrener. See Stearic acid Humulene. See Caryophyllene Hydral. See Chloral hydrate Hydralin. See Cyclohexanol Hydrates of sodium metasilicate, in bath/washing products, 1:943 Hydratropic alcohol. See 2-Phenyl-1-propanol Hydraulic cement. See Portland cement Hydraulic oil. See White oils Hydraulic oils, 5:352 Hydrazine, 2:869 chemical and physical properties, 2:870 environmental impact, studies, 2:874 exposure assessment, 2:870 production and use, 2:870 toxic effects, 2:870-874 Hydrazine, 1,1dimethyl-. See 1,1-Dimethylhydrazine Hydrazine, 1,2-dimethyl-. See 1,2-Dimethylhydrazine Hydrazine, methyl-. See Methylhydrazine Hydrazine, phenyl-. See Phenylhydrazine Hydrazinobenzene. See Phenylhydrazine Hydrazoic acid. See Azides Hydroacrylic acid. See Propionic acid Hydrobromic. See Ethyl bromide Hydrocarbon oils. See White oils Hydrochloric acid (HCl), 1:607 Hydrochloric ether. See Ethyl chloride Hydrochlorofluorocarbon 124. See 1-Chloro-1,2,2,2tetrafluoroethane Hydrochlorofluorocarbons (HCFCs), 3:359 degradation of stratospheric ozone, 1:994 greenhouse warming potential (GWP), 3:360t Hydrocortisone, 6:314 Hydrofl acid 150. See Stearic acid Hydrofluorocarbons greenhouse warming potential (GWP), 3:360t Hydrofol 1895. See Stearic acid Hydrofol acid 1655. See Stearic acid Hydrofol acid 1855. See Stearic acid Hydrogen bromide, 1:1089 chemical and physical properties, 1:1089, 1:1090t estimated number of workers exposed, 1:1090t metal salts, bromides, 1:1089, 1:1091 Hydrogen carboxylic acid. See Formic acid

CUMULATIVE SUBJECT INDEX, VOLUMES 1–6 615

Hydrogen chloride, 1:1067 chemical and physical properties, 1:1067 exposure assessment, 1:1067-1068 production and use, 1:1067 standards, regulations, or guidelines of exposure, 1:1069 toxic effects, 1:1068 acute toxicity, 1:1068 chronic and subchronic toxicity, 1:1068 clinical cases, 1:1068-1069 experimental studies, 1:1068 human experience, 1:1068 Hydrogen cyanide chemical and physical properties, 2:948, 2:950t-951t exposure assessment, 2:949 exposure standards, 2:949 odor and warning properties, 2:948 and partly to cyanic acid (HOCN), 2:958 physiological response to, 2:952t production and use, 2:948-949 toxic effects, 2:949 Hydrogen fluoride, 1:1038 chemical and physical properties, 1:1039 exposure assessment, 1:1040 production and use, 1:1039-1040 standards, regulations, or guidelines for exposure, 1:1048, 1049 thresholds and standards for exposure to, 1:1049t toxic effects, 1:1040 acute toxicity, 1:1040-1041 carcinogenesis, 1:1042 chronic and subchronic toxicity, 1:1041 clinical cases, 1:1045-1048 genetic and related cellular effects studies, 1:1042 human experience, 1:1044 LC₅₀ values for animals exposed to, 1:1040t neurological, pulmonary, skin sensitization, 1:1042-1044 pharmacokinetics, metabolism, and mechanisms, 1:1041-1042 reproductive and developmental, 1:1042 Hydrogen iodide, 1:1095 Hydrogen selenide, 1:858 chemical and physical properties, 1:858, 851t production and use, 1:859 standards, regulations, or guidelines of exposure, 1:859 toxic effects, 1:859 Hydrogen sulfide, 1:868 chemical and physical properties, 1:865t, 1:868 exposure assessment, 1:869 production and use, 1:868-869 standards, regulations, or guidelines of exposure, 1:872 toxic effects, 1:869 chronic and subchronic toxicity, 1:870-871 experimental studies, 1:869 human experience, 1:871-872 reproductive and developmental effects, 1:871 Hydrogen telluride, 1:864 chemical and physical properties, 1:861t, 1:864 production and use, 1:864 toxic effects, 1:864 Hydrolose. See Methyl cellulose

Hydronitric acid. See Azides Hydroperoxides, toxic properties, 4:578 1-(1-Hydroperoxycyclohexyl)dioxycyclohexanol. See 1-Hydroperoxy-1'-hydroxydicyclohexyl peroxide 1-Hydroperoxycyclohexyl-1-hydroxycyclohexyl peroxide. See 1-Hydroperoxy-1'-hydroxydicyclohexyl peroxide 1-Hydroperoxy-1'-hydroxydicyclohexyl peroxide, 4:565 chemical and physical properties, 4:565 exposure assessment, 4:565 toxic effects, 4:565 1-Hydroperoxy-1-vinylcyclohex-3-ene. See 1-Vinyl-3-cyclohexen-1-yl hydroperoxide Hydrophenol. See Cyclohexanol Hydroquinol. See Hydroquinone Hydroquinone, 2:257 chemical and physical properties, 2:258 environmental impact, studies, 2:267-268 exposure assessment, 2:259 guidelines of exposure, 2:267 production and use, 2:258 toxic effects, 2:259 carcinogenesis, 2:263 cellular effects studies, 2:264 epidemiology, 2:266 experimental studies, 2:259 human experience, 2:265 pharmacokinetics, metabolism, and mechanisms, 2:261 reproductive and developmental, 2:262 α -Hydroquinone. See Hydroquinone m-Hydroquinone. See Resorcinol p-Hydroquinone. See Hydroquinone Hydroquinone, bis(2-hydroxyethyl) ether. See 2,2'-[1,4-Phenylenebis(oxy)]bisethanol Hydroquinone di-(beta-hydroxyethyl) ether. See 2,2'-[1,4-Phenylenebis(oxy)]bisethanol Hydroquinone dimethyl ether, 3:626 chemical and physical properties, 3:626 toxic effects, 3:626 Hydroquinone ethers, 3:624 Hydroquinone monobenzyl ether, 3:626 chemical and physical properties, 3:627 toxic effects experimental studies, 3:627 human experience, 3:627 Hydroquinone monoethyl ether, 3:625 guidelines of exposure, 3:626 toxic effects, 3:626 Hydroquinone monomethyl ether, 3:624 chemical and physical properties, 3:625 toxic effects, 3:625 experimental studies, 3:625 human experience, 3:625 Hydrous magnesium silicate. See Talc Hydroxyacetaldehyde. See Glycolaldehyde m-Hydroxyaminobenzene. See 3-Aminophenol 3-Hydroxyaniline. See 3-Aminophenol 4-Hydroxyaniline. See 4-Aminophenol; p-Aminophenol o-Hydroxyaniline. See 2-Aminophenol; o-Aminophenol p-Hydroxyaniline. See 4-Aminophenol

4-Hydroxyanisole. See Hydroquinone monomethyl ether 2-Hydroxybenzaldehyde. See Salicylaldehyde 4-Hydroxybenzaldehyde. See p-Hydroxybenzaldehyde p-Hydroxybenzaldehyde, 3:714. See p-Hydroxybenzaldehyde chemical and physical properties, 3:714 Hydroxybenzene. See Phenol p-Hydroxybenzoate ethyl ester. See Ethyl paraben 4-Hydroxybenzoates, 4:147 4-Hydroxybenzoic acid butyl ester. See Butyl paraben p-Hydroxy-benzoic acid butyl ester. See Butyl paraben 4-Hydroxybenzoic acid ethyl ester. See Ethyl paraben p-Hydroxybenzoic acid ethyl ester. See Ethyl paraben 2-Hydroxybenzoic acid, methyl ester. See Salicylates 4-Hydroxybenzoic acid methyl ester. See Methyl Paraben o-Hydroxybenzoic acid, methyl ester. See Salicylates p-Hydroxybenzoic acid methyl ester. See Methyl Paraben 2-Hydroxybenzoic acid, pentyl ester. See Amyl salicylate 2-Hydroxybenzoic acid, phenyl ester. See Phenyl salicylate 4-Hydroxybenzoic acid propyl ester. See Propyl paraben p-Hydroxybenzoic acid propyl ester. See Propyl paraben p-Hydroxybenzoic methyl ester. See Methyl Paraben p-Hydroxybenzoic propyl ester. See Propyl paraben 2-Hydroxybiphenyl. See o-Phenylphenol (OPP) o-Hydroxybiphenyl. See o-Phenylphenol (OPP) 2-Hydroxybiphenyl sodium salt. See Sodium o-phenylphenate (SOPP) 2-Hydroxy-5-bromobenzaldehyde, 3:710 1-Hydroxybutane. See 1-Butanol 2-Hydroxybutane. See 2-Butanol Hydroxybutanedioic acid. See Malic acid 3-Hydroxy-2-butanone. See Acetoin 2-Hydroxybutylamine. See Mono-sec-butanolamine 2-Hydroxy-1-butylamine. See Mono-sec-butanolamine 2-Hydroxy-n-butylamine. See Mono-sec-butanolamine β-Hydroxybutyraldehyde (acetaldol), 3:675 chemical and physical properties, 3:675 production and use, 3:675 toxic effects, 3:675 3-Hydroxychlorobenze. See 3-Chlorophenol 2-Hydroxychlorobenzene. See 2-Chlorophenol 4-Hydroxychlorobenzene. See 4-Chlorophenol 1-Hydroxy-2-chloropropane. See Propylene chlorohydrin Hydroxycyclohexane. See Cyclohexanol 1-Hydroxydecane. See 1-Decanol Hydroxy-N,N-dimethyl-cis-crotonamide dimethyl phosphate. See Dicrotophos 1-Hydroxy-2,4-dinitrobenzene. See 2,4-Dinitrophenol Hydroxydiphenyl. See o-Phenylphenol (OPP) 1-Hydroxydodecane. See 1-Dodecanol 3-Hydroxy-1,2-epoxypropane. See Glycidol (RS)-3-Hydroxy-1,2-epoxypropane. See Glycidol 2-Hydroxyethanamine. See Monoethanolamine Hydroxyethane-1,2-dicarboxylic acid. See Malic acid 2-Hydroxyethanol. See Ethylene glycol 1-(2-Hydroxyethoxy)methylphenol. See Ethylene glycol monomethylphenyl ether N-2-Hydroxyethylacetamide. See N-Acetylethanolamine 2-Hydroxyethyl acetate. See Ethylene glycol monoacetate Hydroxyethylamine. See Monoethanolamine

2-Hydroxyethylamine. See Monoethanolamine Hydroxyethyl cellulose, 3:645, 4:945 chemical and physical properties, 4:945 exposure assessment, 4:945 guidelines of exposure, 4:945 production and use, 4:945 toxic effects, 3:645, 4:945 2-Hydroxyethyl cellulose. See Hydroxyethyl cellulose Hydroxyethyl cellulose ether. See Hydroxyethyl cellulose N-(Hydroxyethyl)diethylenetriamine, 2:488 guidelines of exposure, 2:489 production and use, 2:489 toxic effects, 2:489 (2-Hydroxyethyl)dimethylamine. See Dimethylethanolamine β-Hydroxyethyldimethylamine. See Dimethylethanolamine Hydroxyethylenediphosphonate dioxygenase (HEDP), 1:626 N-Hydroxyethyl-1,2-ethanediamine. See Aminoethylethanolamine 2-Hydroxyethyl ether. See Diethylene glycol Hydroxyethyl ether cellulose. See Hydroxyethyl cellulose N-Hydroxyethylethylenediamine. See Aminoethylethanolamine N-(2-Hydroxyethyl)ethylenediamine. See Aminoethylethanolamine Hydroxyethylmethyleneimine. See Monomethylethanolamine 1-Hydroxyethyl methyl ketone. See Acetoin 2-Hydroxyethyl phenyl ether. See Ethylene glycol monophenyl ether β-Hydroxyethyl phenyl ether. See Ethylene glycol monophenyl ether 1-Hydroxyheptane. See 1-Heptanol 1-Hydroxyhexane. See 1-Hexanol Hydroxylated metabolites, 1:623 2-Hydroxyl-5-chlorobenzaldehyde, 3:710 Hydroxyl radical, 1:6 3-Hydroxymalic acid. See Tartaric acid Hydroxymethanesulfonic acid. See Sodium formaldehyde bisulfite 1-Hydroxy-2-methoxybenzene. See Guaiacol (Hydroxymethyl) benzene. See Benzyl alcohol 1-Hydroxy-2-methylbenzene. See m-Cresol; o-Cresol 1-Hydroxy-3-methylbenzene. See m-Cresol Hydroxy-3-methylbenzene. See m-Cresol 1-Hydroxy-3-methylbutane. See 3-Methyl-1-butanol 2-Hydroxymethylfuran. See Furfuryl alcohol 3-Hydroxymethyl-n-heptan-4-ol. See 2-Ethyl-1,3-hexanediol 2-Hydroxymethyloxirane. See Glycidol 4-Hydroxy-4-methyl-2-pentanone, 3:834 4-Hydroxy-4-methylpentan-2-one. See 4-Hydroxy-4-methyl-2pentanone 4-Hydroxy-4-methyl-2-pentanone chemical and physical properties, 3:834-835 environmental impact, studies, 3:837 exposure assessment, 3:835 guidelines of exposure, 3:837 production and use, 3:835 toxic effects experimental studies, 3:835-836 human experience, 3:836-837 4-Hydroxy-4-methyl-2-pentanone peroxide. See Diacetone alcohol peroxide

1-Hydroxy-2-methylpropane. See Isobutanol

5-Hydroxy-N-methylpyrrolidinone, 2:728 4-(Hydroxymethyl)toluene. See p-Tolyl alcohol 2-Hydroxy-4-nitroaniline. See 2-Amino-5-nitrophenol 2-Hydroxy-5-nitroaniline. See 2-Amino-4-nitrophenol 4-Hydroxy-3-nitroaniline. See 4-Amino-2-nitrophenol 2-Hydroxynitrobenzene. See 2-Nitrophenol 3-Hydroxy-nitrobenzene. See 3-Nitrophenol 3-Hydroxy-1-nitrobenzene. See 3-Nitrophenol 4-Hydroxynitrobenzene. See 4-Nitropheno 1-Hydroxynonane. See 1-Nonanol 12-Hydroxy-(cis)-9-octadecenoic acid. See Ricinoleic acid (Z)-12-Hydroxy-9-octadecenoic acid. See Ricinoleic acid 3-Hydroxyphenol. See Resorcinol p-Hydroxyphenol. See Hydroquinone 3-Hydroxyphenyl acetate. See Resorcinol monoacetate m-Hydroxyphenyl acetate. See Resorcinol monoacetate m-Hydroxyphenylamine. See 3-Aminophenol; m-Aminophenol Hydroxy-2-phenylbenzene. See o-Phenylphenol (OPP) 3-Hydroxyphenyl benzoate. See Resorcinol monobenzoate 2-Hydroxypropane. See Isopropanol 2-Hydroxy-1,2,3-propanetricarboxylic acid. See Citric acid 2-Hydroxy-1,2,3-propanetricarboxylic acid, triethyl ester. See Triethyl citrate 2-Hydroxypropanoic acid butyl ester. See n-Butyl lactate 3-Hydroxypropionitrile chemical and physical properties, 2:950t-951t, 2:970 experimental studies, 2:970 exposure assessment, 2:970 exposure standards, 2:970 production and use, 2:970 toxic effects, 2:970 2-Hydroxyproply methyl ether. See Hydroxypropyl methylcellulose 2-Hydroxy-1-propyl acrylate. See Propylene glycol monoacrylate 2-Hydroxypropylamine. See Monoisoprpanolamine p-Hydroxy propyl benzoate. See Propyl paraben Hydroxypropyl cellulose, 4:945 chemical and physical properties, 4:945 exposure assessment, **4:**946 guidelines of exposure, 4:946 production and use, 4:945-946 toxic effects, 4:946 Hydroxypropyl cellulose, average MW 100. See Hydroxypropyl cellulose 2-Hydroxypropyl cellulose ester. See Hydroxypropyl cellulose 3-Hydroxypropylene oxide. See Glycidol Hydroxypropyl methyl cellulose, 3:643, 4:944 chemical and physical properties, 4:944 guidelines of exposure, 4:945 production and use, 4:944 toxic effects, 3:643-644, 4:945 6-Hydroxy-3(2H)-pyridazinone. See Maleic hydrazide Hydroxysuccinic acid. See Malic acid 1-Hydroxy-4-tert-butylbenzene. See p-tert-Butylphenol Hydroxytoluene. See Benzyl alcohol 2-Hydroxytoluene. See o-Cresol 3-Hydroxytoluene. See m-Cresol m-Hydroxytoluene. See m-Cresol o-Hydroxytoluene. See o-Cresol

β-Hydroxytricarballylic acid. See Citric acid β-Hydroxytricarboxylic acid. See Citric acid 1-Hydroxy-2,2,2-trichloroethylphosphonic acid dimethyl ester. See Trichlorfon 2-Hydroxytriethylamine. See Diethylethanolamine β-Hydroxytriethylamine. See Diethylethanolamine 2-Hydroxy-1,3,5-trinitrobenzene. See Picric acid 5-Hydroxytryptamine. See Serotonin Hyperbaric O₂ therapy, **1:**960, **1:**992, **1:**993 Hyperbaric oxygen (HBO₂), 6:289 Hypercalcemia, 1:151, 1:283, 1:286, 1:300 Hyperesthesia, 1:307, 1:308, 1:322, 1:323, 1:338 Hyperhomocysteinemia, 1:979 Hyperkalemia, 1:936 Hypermagnesiumemia, 1:146 Hypernatremia, 1:938 Hyperoxic injury, 1:993 Hyperpigmentation, 1:169 Hyperplasia, 1:173, 1:518 of bronchial lymph nodes, 1:526 Hypersensitivity pneumonitis (HP), 1:453, 6:7 Hyperthermia, 6:100 Hypertrophic rhinitis, 1:534 Hypervitaminosis, 1:534 Hy-phi 1055. See Oleic acid Hy-phi 1088. See Oleic acid Hy-phi 1199. See Stearic acid Hy-phi 1205. See Stearic acid Hy-phi 1303. See Stearic acid Hyphi 1401. See Stearic acid Hy-phi 2066. See Oleic acid Hy-phi 2088. See Oleic acid Hy-phi 2102. See Oleic acid Hypnone. See Acetophenone Hypocalcemia, 1:147, 1:148, 1:287, 1:712, 1:1045, 1:1053 Hypochlorous acid, 1:1079 Hypogonadism, 1:169, 1:641 Hypokalemia, 1:156, 1:157, 1:326, 1:936, 1:1045 Hypomyelination, 1:241, 1:863 Hypoxanthine-guaninephosphoriboxyltransferase(HGPRT), 1:682, 6:458 Hypoxia, 1:952, 1:982, 6:317 adaptation to short-term altitude exposure, 6:319 at altitude, responses, 6:318 cabin decompression, 6:322-323 decompression to altitude, 6:323-325 effects of high altitude on preexisting disorders, 6:322 flying after diving, 6:325-326 long-term exposure to hypoxia with adaptation, 6:320-322 manifestations of acute exposure, 6:318-319 prevention of acute hypoxia, 6:319-320 types of, 6:317 Hypromellose. See Hydroxypropyl methyl cellulose Hystrene 80. See Stearic acid Hystrene 4516. See Stearic acid Hystrene 5016. See Stearic acid Hystrene 7018. See Stearic acid Hystrene 9718. See Stearic acid

Hystrene s 97. See Stearic acid Hystrene t 70. See Stearic acid IARC, 2:708. See International Agency for Research on Cancer IARC carcinogenic evaluations, 3:236t IARC Working Group panels, 6:467 IBA. See Isobutanol; Isobutylamine 5,8,11,14-Icosatetraenoic acid. See Arachidonic acid ICP-AES. See Inductively coupled argon plasma atomic emission spectroscopy ICP-MS technique, 1:588 ICPR, guidelines, 1:695 ICRP. See International Commission for Radiological Protection ICRP publication 2 model, 1:545 Ideal gas law, conversion, 5:100 Idiopathic Parkinson's disease, 1:58 IDLH level. See Immediately dangerous to life and health (IDLH) level IDMS. See Isotope dilution thermal ionization mass spectrometry 1,2-Idryl. See Fluoranthene IEUBK model. See Integrated Biokinetic Uptake (IEUBK) model IGE. See Isopropyl glycidyl ether IgM plaque-forming cells (IgM-PFCs), 1:451 Iisooctanol. See Isooctyl alcohol Ilmenite (FeTiO₃), 1:429, 1:431, 1:438, 1:443 1,1'-Imino-bis(2-propanol). See Diisopropanolamine 1,1'-Iminodi-2-butanol. See Di-sec-Butanolamine Iminodiethanol. See Diethanolamine 1,1'-iminodipropan-2-ol. See Diisopropanolamine 3,3'-Iminodipropionitrile chemical and physical properties, 2:950t-951t, 2:978 toxic effects, 2:978 Immediately dangerous to life and health (IDLH) level, 1:361 Impact polystyrene. See Polystyrene Impervotar. See Coal tar INAA. See Instrumental neutron activation analysis Indeno[1,2,3-cd]pyrene, 5:400 chemical and physical properties, 5:400-401 exposure assessment, 5:401 guidelines of exposure, 5:401 pharmacokinetics, metabolism, and mechanisms, 5:401 production and use, 5:401 Indianol. See 4-Aminophenol Indium antimonide, 1:300 chemical and physical properties, 1:301 production and use, 1:301 standards, regulations, or guidelines of exposure, 1:301 toxic effects, 1:301 experimental studies, 1:301 Indium compounds, 1:288 chemical and physical properties, 1:288 exposure assessment, 1:289-290 production and use, 1:288-289 standards, regulations, or guidelines of exposure, 1:292 toxic effects, 1:290 acute toxicity, 1:290 carcinogenesis, 1:291 chronic and subchronic toxicity, 1:290-292 clinical cases, 1:291

experimental studies, 1:290 genetic and related cellular effects studies, 1:291 human experience, 1:291 pharmacokinetics, metabolism, and mechanisms, 1:290-291 reproductive and developmental, 1:291 Indium nitrate, 1:299 chemical and physical properties, 1:299 experimental studies, 1:300 acute toxicity, 1:300 chronic and subchronic toxicity, 1:300 pharmacokinetics, metabolism, and mechanisms, 1:300 reproductive and developmental, 1:300 standards, regulations, or guidelines of exposure, 1:300 production and use, 1:300 studies on environmental impact, 1:300 toxic effects, 1:300 Indium oxide, 1:292 chemical and physical properties, 1:292-293 experimental studies, 1:293 acute toxicity, 1:293 chronic and subchronic toxicity, 1:293 genetic and related cellular effects studies, 1:294 neurological, pulmonary, and skin sensitization, 1:294 pharmacokinetics, metabolism, and mechanisms, 1:293-294 human experience, 1:294-295 pharmacokinetics, metabolism, and mechanisms, 1:294-295 standards, regulations, or guidelines of exposure, 1:295 studies on environmental impact, 1:295 toxic effects, 1:293 Indium sulfate, 1:301 acute toxicity, 1:302 chemical and physical properties, 1:301 pharmacokinetics, metabolism, and mechanisms, 1:302 standards, regulations, or guidelines of exposure, 1:302 toxic effects. 1:302 Indium trichloride, 1:295 chemical and physical properties, 1:295 experimental studies, 1:295 acute toxicity, 1:295-296 chronic and subchronic toxicity, 1:295-296 genetic and related cellular effects studies, 1:298 neurological, pulmonary, and skin sensitization, 1:298-299 pharmacokinetics, metabolism, and mechanisms, 1:296-297 reproductive and developmental, 1:297-298 human experience, 1:299 clinical cases, 1:299 standards, regulations, or guidelines of exposure, 1:299 production and use, 1:295 studies on environmental impact, 1:299 toxic effects, 1:295 Inductively coupled argon plasma atomic emission spectroscopy (ICP-AES), 1:386, 1:444, 1:446, 1:477, 1:541, 1:567, 1:587, 1:610, 1:640, 1:655, 1:656, 1:711, 1:712, 1:773 Inductively coupled plasma mass spectrometry (ICP-MS), 1:186, 1:578, 1:655, 1:773, 1:774 Inductively coupled plasma optical emission spectroscopy (ICP-OES), 1:186 Industrene 5016. See Stearic acid Industrene 8718. See Stearic acid

Industrene 9018. See Stearic acid Industrene r. See Stearic acid Industrial Hygiene Committee, 5:6 Industrial hygiene evaluation of esters, 4:353 Industrial hygienists (IHs), 5:7 Industrial toxicology, 5:1 carcinogenesis, 5:2 Infantile hypercalcemia, 1:149 Infrared radiation, 1:1 Inhalable particulate matter (IPM), 5:81 Inhalation uptake physiologically based toxicokinetic model, schematic, 6:482f Inorganic iodine compounds, commercial interest, 1:1095 Inorganic lead, 1:381-413 absorption gastrointestinal tract, 1:388 inhalation, 1:388 acute lead nephropathy, 1:392-393 ALAD activity, 1:405 ALA in blood and urine, 1:406 animals and in vitro studies, 1:388-397 biomarkers of effects. 1:387 birth outcomes, 1:403 in blood, 1:386 in bone, 1:387, 1:410-411 carcinogenesis, 1:403-404 mechanism for lead-related carcinogenesis, 1:395 cardiovascular effects, 1:409-410 chemical and physical properties, 1:382, 1:383t chronic lead nephropathy, 1:393 clinical cases of nervous system effects in adults, 1:398 clinical studies, 1:397-398 coproporphyrin levels, 1:406 developmental and behavioral effects, 1:389-390 developmental effects in children, 1:401-403 distribution, 1:388 distribution in humans, 1:399 effect on pyrimidine-5-nucleosidase, 1:406 effect on red blood cell survival, 1:406 effects mechanisms on nervous system, 1:390-391 effects of impaired heme synthesis, 1:405-406 effects on bone and teeth, 1:393 effects on cardiovascular system, 1:391-392 effects on heme synthesis and hematopoiesis, 1:389 epidemiological studies of lead and cancer, 1:404-405 excretion, 1:388 excretion in humans, 1:399 exposure assessment, 1:385-387 in air, 1:385-386 in background levels, 1:386 biomonitoring/biomarkers, 1:386-387 community methods, 1:386 workplace methods, 1:386 workplace surface dust, 1:386 exposure limits and guidance, 1:382t exposure of workers' families, 1:412 gastrointestinal absorption in humans., 1:398-399 genetic and related cellular effects, 1:395-396 gout and lead nephrotoxicity, 1:409

hematological effects, 1:405-406 immunological effects, 1:394 immunosuppressive effects, 1:410 inhalation absorption in humans, 1:398 interactions between lead and essential trace elements, 1:396-397 lifestyle factors, 1:411-412 mechanisms for carcinogenicity of lead, 1:405 mortality and acute toxicity, 1:400-401 nervous system and neurobehavioral effects, 1:406-407 neurological effects, 1:396 nutritional factors, 1:411 pathological and clinical effects, 1:381 peripheral neuropathy, 1:390 pharmacokinetic modeling, 1:399-400 pharmacokinetics, metabolism, and mechanisms, 1:388 in plasma, 1:386-387 poisoning, signs/symptoms, 1:397 polymorphisms, 1:411 production and use, 1:382-385, 1:384t lead, 1:384-385 lead ores, 1:382-383 lead smelting and refining, 1:383-384 sources of exposure to lead, 1:385 protoporphyrin, 1:405-406 renal toxicity, 1:392-393, 1:407-409 reproductive and developmental effects, 1:394-395 reproductive effects, 1:401 sensory organ toxicity., 1:390 standards, regulations, or guidelines of exposure, 1:412-413 symptoms of adult lead poisioning, 1:397-398 toxic effects, 1:388-412 epidemiology studies, 1:400-412 human studies, 1:397-412 in urine, 1:387 Inorganic mercury compounds, 1:219 IN 43898, SD 208304. See Chlorethoxyphos 6-12 Insect repellent. See 2-Ethyl-1,3-hexanediol Institute of Medicine (IOM), 1:798 Instrumental NAA (INAA), 1:774 Instrumental neutron activation analysis (INAA), 1:444 Insulating oils, 5:352 Integrated Biokinetic Uptake (IEUBK) Model, 1:399, 1:400 Intensive polycythemia, 1:672 Interaction between cold and air pollution, 6:24-25 Interactions chemical mixtures, public health guidance values, 6:433-434 chemical-specific consultations, 6:434 completed exposure pathways, 6:422-423 consistency and magnitude, 6:430 environmental exposures, 6:419-420 formulated mixtures, 6:437-438 future directions, 6:441-444 hazard index approach, 6:424-425 hazard index, target-organ toxicity dose modification, 6:425-427 Illinois-contaminated air, 6:436 Integral Search System (ISS) method mixtures of carcinogens, 6:433 joint toxic action, assessment approaches, 6:423-424

Interactions (Continued) Louisiana-contaminated soil, 6:436 mathematical/statistical procedures isobolographic methods, 6:438-439 physiologically based pharmacokinetic/pharmacodynamic models, 6:439-441 response surface methodology (RSM), 6:439 mixtures, experimental studies, 6:436-437 mixtures, types complex mixtures, 6:421-422 simple mixtures, 6:420-421 New Jersey-contaminated water, 6:434-435 terminology and examples, 6:428-430 total cancer risk, 6:433 toxic equivalency factor (TEF) method, 6:427 weight-of-evidence (WOE) method, 6:430-433 whole mixtures, 6:437 International Agency for Research on Cancer (IARC), 1:395, 1:494, 1:575, 1:642, 1:662, 1:738, 1:1083, 5:2 International Collaborative Program, 2:749 International Commission on Radiological Protection (ICRP), 1:592, 1:694, 1:782 biokinetic model, for uranium in humans, 1:789 International Labour Organization (ILO), 5:17, 5:54 International Nickel Company (INCO), 1:663 International Programme on Chemical Safety (IPCS), 2:986 International Union of Pure and Applied Chemistry (IUPAC), 1:538 In utero effects, of radiation, 1:12 Inverse dose-rate effect, 1:799 In vitro assay, 2:724 In vitro testing systems, 2:757 In vivo bone marrow micronucleus test, 2:757 In vivo fluorometric assay, 2:757 In vivo/in vitro fertilization (IVF), 2:767 In vivo neutron activation, 1:624-625 Iodides. 1:1095 Iodine, 1:1093 chemical and physical properties, 1:1093, 1:1094t and its compounds, 1:1093 acute toxicity and exposure-related signs and symptoms, 1:1097t production and use, 1:1093, 1:1095t standards, regulations, or guidelines of exposure, 1:1097 toxic effects, 1:1096-1097 Iodine-131, 1:17 health effects, 1:17 Iodine halides, 1:1095 properties, 1:1094t Iodine pentafluoride, 1:1096 5-Iododeoxyuridine (IUdR), 1:10 Iodoesters, 4:400 1-Iodoethane. See Ethyl iodide Iodoform, 3:37 chemical and physical properties, 3:38 exposure assessment, 3:38 guidelines of exposure, 3:40 production and use, 3:38 toxic effects, 3:38 experimental studies, 3:38-39

human experience, 3:39-40 Iodomethane. See Methyl iodide Ionization, 1:1, 1:3, 1:6, 1:10, 1:76, 1:303, 1:774 IPA. See Isopropanol IPCS uncertainty factors, 5:109t IQ scores, 1:402 effect of 5-point decrease in, 1:403f Iron acute and chronic toxicity, 1:640 acute toxicity, 1:641 carcinogenesis, 1:642 chemical and physical properties, 1:637-639, 1:638t chronic and subchronic toxicity, 1:641, 1:642-643 clinical cases, 1:641-642 exposure assessment in air, 1:640 pharmacokinetics, metabolism, and mechanisms, 1:641-642 principal compounds, 1:637 production and use, 1:639-640 reproductive and developmental studies, 1:640 standards, regulations, or guidelines of exposure, 1:643 toxic effects epidemiology studies, 1:642-643 experimental studies, 1:640 human experience, 1:641-642 Iron-deferoxamine, 1:642 Iron pentacarbonyl (Fe(CO)₅), 1:638 overexposure to, signs and symptoms, 1:641 Irradiation, during organogenesis in mice, 1:12 Irrathene r. See Polyethylene Isoacetophorone. See Isophorone Isoamyl acetate, 4:85 chemical and physical properties, 4:85 exposure assessment, 4:85 workplace methods, 4:85 odor and warning properties, 4:85 production and use, 4:85 toxic effects, 4:85 acute toxicity, 4:85, 4:86 chronic and subchronic toxicity, 4:86 clinical cases. 4:86 epidemiology studies, 4:86 experimental studies, 4:85 genetic and related cellular effects studies, 4:86 human experience, 4:86 standards, regulations, or guidelines of exposure, 4:86 Isoamyl alcohols, 3:957 Isoamylamine, 2:468 chemical and physical properties, 2:468 exposure assessment, 2:468 guidelines of exposure, 2:469 production and use, 2:468 toxic effects, 2:468-469 Isoamylester kyseliny octove. See Isoamyl acetate Isoamyl ethanoate. See Isoamyl acetate Isoamyl formate, 4:64. See Isoamyl formate chemical and physical properties, 4:65 odor and warning properties, 4:65 toxic effects, 4:65

Isoamylhydride. See 2-Methylbutane Isoamyl mercaptan animal and human studies, 4:1049 chemical and physical properties, 4:1049 Isoamyl methanoate. See Isoamyl formate Isoamyl nitrite, 2:395 chemical and physical properties, 2:395 production and use, 2:395-396 toxic effects, 2:396 Isobutaldehyde. See Isobutyraldehyde Isobutanal. See Isobutyraldehyde Isobutane. See 2-Methylpropane Isobutanol, 3:947 chemical and physical properties, 3:947 exposure assessment, 3:948 guidelines of exposure, 3:950 production and use, 3:948 toxic effects experimental studies, 3:948-949 human experience, 3:949-950 Isobutenal. See Methacrylaldehyde Isobutene. See 2-Methylpropene 1-Isobutenyl methyl ketone. See Mesityl oxide 2-Isobutoxyethanol. See Ethylene glycol monoisobutyl ether 2-(2-Isobutoxyethoxy) ethanol. See Diethylene glycol monoisobutyl ether Isobutoxylethanol. See Ethylene glycol monoisobutyl ether Isobutric acid. See Isobutyric acid Isobutyl acetate, 4:78 chemical and physical properties, 4:78 exposure assessment, 4:78 air, 4:78 background levels, 4:79 workplace methods, 4:79 odor and warning properties, 4:78 production and use, 4:78 standards, regulations, or guidelines of exposure, 4:79 studies on environmental impact, 4:79 toxic effects, 4:79 acute toxicity, 4:79 human experience, 4:79 pharmacokinetics, metabolism, and mechanisms, 4:79 Isobutyl acetate FCC. See Isobutyl acetate Isobutylacetic acid. See Isocaproic acid Isobutyl alcohol. See Isobutanol Isobutyl aldehyde. See Isobutyraldehyde Isobutyl α -methacrylate. See Isobutyl methacrylate Isobutylamine, 2:461 chemical and physical properties, 2:461 exposure assessment, 2:462 guidelines of exposure, 2:462 production and use, 2:462 toxic effects, 2:462 Isobutylbenzene, 2:203-204 Isobutylcarbinol. See 3-Methyl-1-butanol Isobutylcarbylamine. See Isoamylamine 2-((1-Isobutyl-3,5-dimethylhexyl)oxy)ethanol. See Ethylene glycol mono-2,6,8-trimethyl-4-nonyl ether Isobutylene. See 2-Methylpropene

Isobutyl ester. See Isobutyl formate Isobutylethanoate. See Isobutyl acetate Isobutyl formate, 4:66. See Isobutyl formate chemical and physical properties, 4:66 odor and warning properties, 4:66 production and use, 4:66 toxic effects acute toxicity, 4:66 experimental studies, 4:66 human experience, 4:66, 4:67 Isobutylformic acid. See Isovaleric acid Isobutyl heptyl ketone. See Trimethyl nonanone Isobutyl ketone. See Diisobutyl ketone Isobutyl mercaptan, 4:1047 animal and human studies, 4:1047 chemical and physical properties, 4:1047 production and use, exposure assessment, regulations, and standards, 4:1047 Isobutyl methacrylate, 4:125 chemical and physical properties, 4:126 production and use, 4:126 studies on environmental impact, 4:127 toxic effects, 4:126 acute toxicity, 4:126 experimental studies, 4:126 genetic and related cellular effects studies, 4:126 human experience, 4:126 pharmacokinetics, metabolism, and mechanisms, 4:126 reproductive and developmental, 4:126 Isobutyl methacrylate (inhibited). See Isobutyl methacrylate Isobutyl methacrylate (stabilized with 15-20 ppm of MEHQ). See Isobutyl methacrylate Isobutyl methanoate. See Isobutyl formate Isobutyl α -methylacrylate. See Isobutyl methacrylate Isobutyl 2-methylacrylate. See Isobutyl methacrylate Isobutylmethylcarbinol. See Methyl isobutyl carbinol Isobutyl methyl ketone peroxide. See Methyl isobutyl ketone peroxide Isobutyl 2-methyl-2-propenoate. See Isobutyl methacrylate Isobutyltrimethylmethane. See 2,2,4-Trimethylpentane Isobutyraldehyde, 3:675 chemical and physical properties, 3:676 exposure assessment, 3:676 production and use, 3:676 toxic effects experimental studies, 3:676 Isobutyric acid, 3:484 chemical and physical properties, 3:484 exposure assessment, 3:484 guidelines of exposure, 3:485 production and use, 3:484 toxic effects experimental studies, 3:484-485 human experience, 3:485 Isobutyric acid, methyl ester. See Methyl isobutyrate Isobutyric acid, 1,2,3-propanetriyl ester. See Glyceryl triisobutyrate Isobutyric aldehyde. See Isobutyraldehyde Isobutyrone. See Diisopropyl ketone

Isobutyronitrile chemical and physical properties, 2:950t-951t, 2:969 exposure assessment, 2:969 exposure standards, 2:969 odor and warning properties, 2:969 production and use, 2:969 reproductive and developmental effects, 2:969 toxic effects acute toxicity, 2:969 experimental studies, 2:969 human experience, 2:969 Isobutyryl aldehyde. See Isobutyraldehyde Isocaproic acid, 3:488 chemical and physical properties, 3:489 exposure assessment, 3:489 guidelines of exposure, 3:489 production and use, 3:489 toxic effects experimental studies, 3:489 human experience, 3:489 Isochrysene. See Triphenylene Isocoparin. See Elaidic acid Isocumene. See n-Propylbenzene Isodecanol. See Isodecyl alcohol Isodecyl alcohol, 4:17, 4:20 chemical and physical properties, 4:17, 4:20 production and use, 4:17, 4:20 toxic effects, 4:17, 4:20 acute toxicity, 4:17, 4:18, 4:20 chronic and subchronic toxicity, 4:18 experimental studies, 4:17, 4:20 reproductive and developmental, 4:18 Isodiphenylbenzene. See Terphenyl Isodurene, 2:191–192 Isoeugenenyl methyl ether. See Methylisoeugenol Isoeugenol, 3:628 chemical and physical properties, 3:629 exposure assessment, 3:629 toxic effects, 3:629 Isoeugenol methyl ether. See Methylisoeugenol Isoeugenyl methyl ether. See Methylisoeugenol Isoforon. See Isophorone Isoheptyl alcohol, 4:4 chemical and physical properties, 4:4 production and use, 4:4 toxic effects, 4:4 experimental studies, 4:4 human experience, 4:4 Isoheptylamine. See 4-Aminoheptane Isohexane. See 2-Methylpentane Isohexanoic acid. See Isocaproic acid Isohexyl alcohol, 3:967 Isohexylamine, 2:469 chemical and physical properties, 2:469 exposure assessment, 2:469-470 guidelines of exposure, 2:470 production and use, 2:469 toxic effects, 2:470 Isomethylsystox- sulfide. See Oxydemeton methyl

Isonitropropane. See 2-Nitropropane Isononyl alcohol, 4:13 chemical and physical properties, 4:13 experimental studies, 4:13 acute toxicity, 4:13 chronic and subchronic toxicity, 4:13 reproductive and developmental, 4:14 production and use, 4:13 toxic effects, 4:13 Isooctane. See 2,2,4-Trimethylpentane Isooctyl adipate. See Diisooctyl adipate Isooctyl alcohol, 4:9 chemical and physical properties, 4:10 production and use, 4:10 toxic effects, 4:10 acute toxicity, 4:10 chronic and subchronic toxicity, 4:10 experimental studies, 4:10 reproductive and developmental, 4:10 standards, regulations, or guidelines of exposure, 4:10 Isooctyl phthalate. See Diisooctyl phthalate Isopentadiene. See 2-Methyl-1,3-butadiene Isopentane. See 2-Methylbutane Isopentanoic acid. See Isovaleric acid Isopentyl acetate. See Isoamyl acetate Isopentyl alcohol. See Isoamyl acetate; Isoamyl formate Isopentyl alcohol, acetate. See Isoamyl acetate Isopentyl alcohol nitrite. See Isoamyl nitrite Isopentylamine. See Isoamylamine Isopentyl ester. See Isoamyl formate; Isoamyl nitrite Isopentyl ester acetic acid. See Isoamyl acetate Isopentyl ethanoate. See Isoamyl acetate Isopentyl formate. See Isoamyl formate Isopentyl methanoate. See Isoamyl formate Isopentyne. See 3-Methylbutyne Isophorone, 3:878 chemical and physical properties, 3:878 environmental impact, studies, 3:880-881 exposure assessment, 3:878 guidelines of exposure, 3:880 production and use, 3:878 toxic effects experimental studies, 3:878-880 human experience, 3:880 Isoprene, β-methylbivinil. See 2-Methyl-1,3-butadiene Isoprene D. See Polyisoprene Isoprene oligomer. See Polyisoprene Isopropanethiol. See 2-Propanethiol Isopropanol, 3:937 chemical and physical properties, 3:937 exposure assessment, 3:937 guidelines of exposure, 3:943 production and use, 3:937 toxic effects experimental studies, 3:937-942 human experience, 3:942-943 Isopropanolamine. See Monoisoprpanolamine DL-Isopropanolamine. See Monoisoprpanolamine Isopropentane. See 2-Methylbutane

Isopropenyl benzene. See α -Methyl styrene 4-Isopropenyl-1-methyl-. See Limonene 4-Isopropenyl-1-methyl-1-cyclohexene. See Limonene Isopropenyl methyl ketone. See Methyl isopropenyl ketone (3)-O-2-Isoproposycarbonyl-1-methylvinyl-O-methyl ethylphosphoramidothioate. See Propetamphos Isopropoxide, 1:443 2-Isopropoxyethanol. See Ethylene glycol monoisopropyl ether 2-Isopropoxypropane. See Diisopropyl ether 1-Isopropoxy-2-propanol (α -isomer). See Propylene glycol monoisopropyl ether 2-Isopropoxy-1-propanol (β-isomer) isopropoxypropanol;. See Propylene glycol monoisopropyl ether 3-Isopropoxypropionitrile chemical and physical properties, 2:950t-951t, 2:976 exposure standards, 2:976 toxic effects, 2:976 Isopropyl acetate, 4:75 chemical and physical properties, 4:75 exposure assessment, 4:76 air, 4:76 workplace methods, 4:76 odor and warning properties, 4:75 production and use, 4:75 standards, regulations, or guidelines of exposure, 4:76 toxic effects, 4:76 acute toxicity, 4:76 chronic and subchronic toxicity. isopropyl, 4:76 experimental studies, 4:76 human experience, 4:76 pharmacokinetics, metabolism, and mechanisms, 4:76 Isopropylacetic acid. See Isovaleric acid Isopropyl acetone. See Methyl isobutyl ketone Isopropyl alcohol, 1:372. See Isopropanol Isopropyl aldehyde. See Isobutyraldehyde Isopropylamine, 2:456 chemical and physical properties, 2:456 exposure assessment, 2:456 guidelines of exposure, 2:456 production and use, 2:456 toxic effects. 2:456 Isopropylaminoethanol. See Monoisopropylethanolamine 2-(Isopropylamino)ethanol. See Monoisopropylethanolamine 3-Isopropylaminopropionitrile chemical and physical properties, 2:950t-951t, 2:975 exposure standards, 2:975 toxic effects, 2:975 Isopropylbenzene, 2:199 Isopropylbenzene hydroperoxide, 4:581 chemical and physical properties, 4:581 exposure assessment, 4:581 toxic effects, 4:581-582 Isopropylbenzene peroxide. See Dicumyl peroxide Isopropyl benzoate, 4:157 chemical and physical properties, 4:157 production and use, 4:158 toxic effects, 4:158 N-Isopropyl-2-benzothiazolesulfenamide animal and human studies, 4:1065-1066

chemical and physical properties, 4:1065 Isopropyl carbinol. See Isobutanol Isopropyl chloride, 3:94 chemical and physical properties, 3:95 exposure assessment, 3:95 guidelines of exposure, 3:95 production and use, 3:95 toxic effects experimental studies, 3:95 human experience, 3:95 Isopropyl chlorocarbonate. See Isopropyl chloroformate Isopropyl chloroformate, 4:398 chemical and physical properties, 4:398 production and use, 4:398 toxic effects, 4:398 acute toxicity, 4:398 human experience, 4:399 Isopropyl chloromethanoate. See Isopropyl chloroformate Isopropyl cumyl hydroperoxide, 4:585 chemical and physical properties, 4:585 exposure assessment, 4:585 toxic effects, 4:585 Isopropyl ester. See Isopropyl acetate Isopropylester kyseliny bensoove [Czech]. See Isopropyl benzoate Isopropyl ester of acetic acid. See Isopropyl acetate Isopropylethanediol. See Ethylene glycol monoisopropyl ether Isopropyl ethanoate. See Isopropyl acetate Isopropylethanolamine. See Monoisopropylethanolamine Isopropyl ether. See Diisopropyl ether Isopropyl formaldehyde. See Isobutyraldehyde Isopropyl formate, 4:63 chemical and physical properties, 4:63 odor and warning properties, 4:64 Isopropylformic acid. See Isobutyric acid Isopropyl glycidyl ether, 4:462 chemical and physical properties, 4:462-463 exposure assessment, 4:463 guidelines of exposure, 4:463 production and use, 4:463 toxic effects experimental studies, 4:463 human experience, 4:463 Isopropylidene acetone, isobutenyl methyl ketone. See Mesityl oxide Isopropylidenemethylene. See 2-Methylpropene Isopropyl ketone. See Diisopropyl ketone Isopropyl mercaptan, 4:1045. See also 2-Propanethiol animal and human studies, 4:1045-1046 chemical and physical properties, 4:1045 Isopropyl nitrate, 2:379 chemical and physical properties, 2:379 exposure assessment, 2:379 toxic effects. 2:379-380 Isopropyl perdicarbonate. See Diisopropyl peroxydicarbonate Isopropylthiol. See 2-Propanethiol 4-Isopropyltoluene. See o/m/p-Isopropyltoluene Isoproterenol, 1:531 Isopto-Tears. See Hydroxypropyl methylcellulose

Isotope dilution thermal ionization mass spectrometry (IDMS), 1:516 Isotopes, 1:4, 1:5, 1:16, 1:288, 1:457, 1:627, 1:946, 1:1098 of radium, 1:16 Isotridecyl alcohol, 4:20 chemical and physical properties, 4:20 production and use, 4:20 toxic effects, 4:20 acute toxicity, 4:20 experimental studies, 4:20 Isotron 22. See Chlorodifluoromethane Isovaleraldehyde, 3:676 chemical and physical properties, 3:676-677 exposure assessment, 3:677 production and use, 3:677 toxic effects, 3:677 Isovaleric acid, 3:486. See Ethyl isovalerate chemical and physical properties, 3:487 guidelines of exposure, 3:488 production and use, 3:487 toxic effects experimental studies, 3:487 human experience, 3:488 Isovalerone. See Diisobutyl ketone Itaconic acid, 3:577 chemical and physical properties, 3:577 guidelines of exposure, 3:578 production and use, 3:577 toxic effects experimental studies, 3:577-578 human experience, 3:578 Itaconic acid, diethyl ester. See Diethyl itaconate IUPAC. See International Union of Pure and Applied Chemistry Ivalon. See Polyvinyl alcohol Japanese MITI test, 2:731, 2:734 Jasper. See Silicon dioxide Jeffamine AP-20. See 4,4'-Methylenedianiline Jet A fuel. See Kerosene Jet fuels, 5:349 exposure assessment, 5:350 production and use, 5:349-350 toxic effects, 5:350 Jintan silver pills, 1:87 JP-1. See Kerosene JP-2. See Kerosene JP-3 jet fuels. See Jet fuels JP-4 jet fuels. See Jet fuels JP-5 jet fuels. See Jet fuels JP-6 jet fuels. See Jet fuels JP-8 jet fuels. See Jet fuels JP-5 Navy Fuel. See Kerosene Judean pitch. See Asphalt Jute batching oil. See White oils K4. See Polyacrylamide

K4. *See* Folyaciyianide K 52. *See* Oleic acid Kako Red TR Base. *See* 4-Chloro-*o*-toluidine Kallikrein–kinin system, **1:**409 Kallocryl K. See Polymethyl methacrylate Kallodent Clear. See Polymethyl methacrylate Kam 1000. See Stearic acid Kam 2000. See Stearic acid Kam 3000. See Stearic acid Kambamine Red TR. See 4-Chloro-o-toluidine Kaolin, 5:197 chemical and physical properties, 5:197 exposure assessment, 5:197 production and use, 5:197 standards, regulations/guidelines, 5:197 toxicity, 5:197 Kaolinite. See Kaolin Kaopectate. See Kaolin Karsan. See Formaldehyde Kathol. See 4-Aminophenol Kaurit S. See Urea-formaldehyde resins Kautschin. See Limonene; Turpentine Kayaku Blue B Base. See 3,3'-Dimethoxybenzidine Kayaku Fast Red 3GL Base. See 4-Chloro-2-nitroaniline Kayaku Red Salt 3GL. See 4-Chloro-2-nitroaniline Kayaku Scarlet G Base. See 5-Nitro-o-toluidine Kaydol. See White oils KBA. See Ketoacetal Kb polymer. See Polystyrene Kegalan S 85. See Polymethyl methacrylate Kepone, 3:452 chemical and physical properties, 3:453 environmental impact, studies, 3:455 exposure assessment, 3:453 guidelines of exposure, 3:455 production and use, 3:453 toxic effects experimental studies, 3:453-454 human experience, 3:454-455 Kerosene, 5:348 chemical and physical properties, 5:348 exposure assessment, 5:348 guidelines of exposure, 5:349 production and use, 5:348 toxic effects. 5:348-349 Kerosine burner fuel. See Kerosene Kessodrate. See Chloral hydrate Ketene, 3:694 Ketoacetal, 3:721 chemical and physical properties, 3:722 3-Ketobutyraldehyde dimethyl acetal. See Ketoacetal Ketohexamethylene. See Cyclohexanone Ketone. See Acetone Ketone C-7. See Methyl n-amyl ketone Ketone peroxides, 4:559 Ketone peroxides, toxic properties, 4:561t Ketone propane. See Acetone Ketones, 3:753, 3:807 alkanes, alcohols, relationships, 3:809f hygienic standards for, 3:778t, 3:818t neurotoxicity of, 3:808t occupational exposures, 3:753, 3:807 structure-activity relationships, 3:807-810

toxic effects, 3:754, 3:807 toxicological properties of, 3:811t β-Ketopropane. See Acetone Kieselguhr. See Amorphous silica Kiln precipitator catch. See Portland cement Kinetic phosphorescence analysis (KPA), 1:773-774 Kitron. See Acephate Kiwi Lustr 277. See 2,6-Dichloro-4-nitroaniline Klebsiella pneumoniae scanning electron micrograph of, 5:511f Kobu. See Pentachloronitrobenzene Kobutol. See Pentachloronitrobenzene Kodelon. See 4-Aminophenol Kondremul. See White oils Korad. See Polymethyl methacrylate Korax. See 1-Chloro-1-nitropropane Kostil. See Styrene-acrylonitrile (SAN) KP 2. See Pentachloronitrobenzene Kremol. See White oils Kremoline. See Petrolatum m-Kresol. See m-Cresol Kroll process, 1:442-443 Krystallin. See Aniline Kupffer's cell growth, 1:686 Kuralon VP. See Polyvinyl alcohol K-XRF, applications for, 1:387 **K**yanite chemical and physical properties, 5:198 guidelines of exposure, 5:199 production and use, 5:198 Kyanol. See Aniline Kyseliny stavelove [Czech]. See Diethyl oxalate Lacgren 506. See Polystyrene Lactate dehydrogenase (LDH), 1:432 Lactic acid butyl ester. See n-Butyl lactate Lactic acid ethyl ester. See Ethyl lactate Lactonitrile chemical and physical properties, 2:950t-951t, 2:970 experimental studies, 2:971 exposure standards, 2:971 production and use, 2:970 toxic effects, 2:971 Lake Blue B Base. See 3,3'-Dimethoxybenzidine Lake Red BK Base. See 5-Chloro-o-toluidine Lake Scarlet G Base. See 5-Nitro-o-toluidine Laminin-5 degradation, 2:717 Lampblack. See Carbon black Langerhans giant cells, 1:445 Lanstan. See 1-Chloro-1-nitropropane Lanthanide compounds, 1:817 bastnaesite, 1:819, 1:820 chemical and physical properties, 1:817-819, 1:818t, 1:819t monazite, 1:819, 1:820 production and use, 1:819-823, 1:822t production of rare earth element mines, 1:820t samarium and europium, commercial uses, 1:821 scandium, commercial uses, 1:820, 1:821

standards, regulations, or guidelines of exposure, 1:836 studies on environmental impact, 1:836-837 toxic effects, 1:823 acute toxicity, 1:824 carcinogenesis, 1:827-828 chronic and subchronic toxicity, 1:824 clinical cases, 1:834-835 epidemiology studies, 1:835-836 experimental studies, 1:823-824 genetic and related cellular effects studies, 1:828-829 human experience, 1:834 neurological, pulmonary, skin sensitization, 1:829-834, 1:832t pharmacokinetics, metabolism, and mechanisms, 1:825-827 reproductive and developmental, 1:827 xenotime, 1:819 yttrium, commercial uses, 1:821 Lanthanide ion complexes, in development LEDs, 1:822 Lanthanide oxides, in polishing, 1:821 Lanthanum carbonate (Fosrenol), for treatment of hyperphosphatemia, 1:822 Lanthanum chloride (LaCl₃), distribution and health effects, 1:826, 1.833 Larvacide. See Trichloronitromethane Larvacide 100. See Trichloronitromethane Lasers, 6:209 apertures and cone angles of acceptance, 6:227 common commercial, 6:210 experimental studies, 6:218-221 exposure duration, 6:226 extended sources, 6:225-226 guidelines, 6:225 helium-neon laser, 6:209 production, 6:212 material processing, 6:212 properties of, 6:211 coherence, 6:211 collimation, 6:211 high radiance, 6:211 spatial profiles, 6:211 spectral linewidth, 6:211 temporal characteristics, 6:211 repetitive laser exposures, 6:226-227 repeated pulsed ocular exposures, 6:226-227 of skin, 6:227 ultraviolet spectral region, 6:226 skin exposure to large areas, 6:225, 6:226 standards, regulations, or guidelines of exposure, 6:221 acute exposure, 6:224 application of limits in laser safety standards, 6:221 exceeding the exposure limits, 6:221 intrabeam laser ocular threshold limit values, 6:222t laser exposure limit values for skin exposure, 6:223t limiting apertures applicable to laser TLVs, 6:223t selected occupational threshold limit values for lasers, 6:223t toxic effects. 6:214 acute effects upon vision, 6:216 exposure duration, 6:215 eye movements, 6:215-216

Lasers (Continued) injury mechanisms, 6:215 wavelength action spectrum, 6:215 types of injury, 6:216-217 cataract, 6:217 infrared cataract, 6:218 photokeratitis, 6:217 photoretinitis, 6:217-218 uses, 6:212 communications, 6:213 consumer products, 6:213 distance measurement using lasers, 6:213 holography, 6:213 laser photochemistry, 6:214 measurement applications, 6:212t-213t medical applications, 6:213 spectroscopic applications, 6:214 various types of lasers, 6:209 wavelength correction factors, 6:225 Latent TB infection (LTBI) standard drug regimens for treatment, 5:572t Latex. See Polydimethyl silicones Lathyrism, 2:977 Lauramine. See Dodecylamine Lauric acid, 3:501 chemical and physical properties, 3:502 exposure assessment, 3:502 guidelines of exposure, 3:502-503 production and use, 3:502 toxic effects experimental studies, 3:502 human experience, 3:502 Laurostearic acid. See Lauric acid Lauroyl peroxide. See Dilauroyl peroxide Laurydol. See Dilauroyl peroxide Lauryl alcohol. See 1-Dodecanol Laurylamine. See Dodecylamine Lauryl gallate. See Dodecyl gallate Lauryl 3,4,5-trihydroxybenzoate. See Dodecyl gallate Lavatar. See Coal tar LB 1145. See Polypropylene glycol butyl ethers LC₅₀, 5:145t LD₅₀, 5:143t, 5:145t LDH. See Lactate dehydrogenase Lead bullion, 1:384 Lead carbonate (PbCO₃)₂, 1:382 Lead-containing ores, mining, 1:381 Lead encephalopathy, 1:396 Lead inclusion body protein, 1:396 Lead, nervous system effects, 1:395, 1:398 Lead oxide (PbO), 1:382 Lead poisoning, 1:397 Lead-protein complexes, 1:407 Lead scrap, 1:384 Lead titanate zirconate (LTZ), 1:455, 1:456 clinical cases, 1:455-456 standards, regulations, or guidelines of exposure, 1:456 toxic effects human experience, 1:455-456

Leaf aldehyde. See Hexenal Leggett model, 1:399 Lemol. See Polyvinyl alcohol Lemol 5-88. See Polyvinyl alcohol Lemol 5-98. See Polyvinyl alcohol Lemol 16-98. See Polyvinyl alcohol Lemol 24-98. See Polyvinyl alcohol Lemol 30-98. See Polyvinyl alcohol Lemol 51-98. See Polyvinyl alcohol Lemol 60-98. See Polyvinyl alcohol Lemol 75-98. See Polyvinyl alcohol Lemol 1288. See Polyvinyl alcohol Lemol GF-60. See Polyvinyl alcohol Lepargylic acid. See Azelaic acid Leukoline. See Quinoline Leukopenia, 1:170, 1:173 Leuteinizing hormone (LH), 1:401 l-Hexyl acetate. See Hexyl acetates Lichenic acid. See Fumaric acid Light-emitting diode (LED)-based photometer, 1:568 Light gasoline. See Gasoline Light microscopy, 1:392 Lignite. See Coal Lignite oil. See White oils Ligroin. See Petroleum ether; VM&P Naphtha Limit of detection (LOD), 1:587 Limonene chemical and physical properties, 2:122 environmental impact, studies, 2:124 exposure assessment, 2:123 guidelines of exposure, 2:124 production and use, 2:123 toxic effects, 2:123-124 α -Limonene. See Limonene D-Limonene dimercaptan, 4:1057 animal and human studies, 4:1057 chemical and physical properties, 4:1057 Linayl cinnamate, 4:177 chemical and physical properties, 4:177 production and use, 4:178 standards, regulations, or guidelines of exposure, 4:178 toxic effects, 4:178 chronic and subchronic toxicity, 4:178 experimental studies, 4:178 human experience, 4:178 neurological, pulmonary, skin sensitization, 4:178 Lindane, 3:455 chemical and physical properties, 3:456 exposure assessment, 3:456 guidelines of exposure, 3:459 production and use, 3:456 toxic effects experimental studies, 3:456–458 human experience, 3:458-459 Linear energy transfer (LET), 1:3, 1:10 low radiation, 1:6, 1:10, 1:13, 1:15 radiation, 1:8, 1:13, 1:15 Linearized multistage (LMS) model, 6:481 (E,E)-Linelaidic acid. See Linolelaideic acid

Linoleic acid, 3:552 chemical and physical properties, 3:552 guidelines of exposure, 3:554 production and use, 3:552 toxic effects, 3:553 experimental studies, 3:553-554 human experience, 3:554 9,12-Linoleic acid. See Linoleic acid Linolelaideic acid, 3:554 chemical and physical properties, 3:555 guidelines of exposure, 3:555 production and use, 3:555 toxic effects experimental studies, 3:555 human experience, 3:555 Linolenic acid, 3:551 chemical and physical properties, 3:551 guidelines of exposure, 3:552 production and use, 3:551 toxic effects, 3:551 experimental studies, 3:551-552 human experience, 3:552 Lipan. See 4,6-Dinitro-o-cresol Lipidolite. See Mica Lipid peroxidation, 1:985 Liquefied petroleum gas. See Propane Liquid paraffin. See White oils Liquid scintillation counters, 1:5 Liquifilm. See Polyvinyl alcohol Litac. See Styrene-acrylonitrile (SAN) Lithium chemical and physical properties, 1:946 compounds, for treatment of mania and bipolar disorders, 1:935 production and use, 1:946 standards, regulations, and guidelines of exposure, 1:947 toxic effects, 1:946-947 Lithosol Orange R Base. See 5-Nitro-o-toluidine Liver cancer death rates, 3:431 Liver enzymes, 2:747 Liver mixed-function oxidases, 2:753 LLDPE. See Polyethylene LMS model, 6:486 Local lymphatic node assay (LLNA), 1:717 Lorinal. See Chloral hydrate Lorrain Smith effect, 1:985 Low-ash polyvinyl chloride (PVC) membrane filters, 1:516 Lowback loads and pain, ergonomic analysis, 6:256 aggravators of low back pain, 6:260t biomechanics, 6:257-258 analysis of holding weight in hand and effect on, 6:259-260, 260f effect of body postures on relative spinal disc pressure, 6:259f effect of seat back inclinations on relative spinal disc pressure, 6:259f intervertebral disc, 6:258 pinching of spinal nerve during lifting weight, 6:259f spinal (vertebral) column and low back region, 6:257 spinal disc loading, 6:258f

ergonomic job analysis, 6:260-261 measurements, 6:261t identifying potential hazards, 6:261 conducting job analysis, 6:262 developing solutions, 6:262 documentation, 6:262 interpreting results, 6:262 preparing to conduct job analysis, 6:261 regulations, and recommendations, 6:262 ANSI Z-365 draft consensus standard, 6:263-264 California's repetitive motion injury standard, 6:263 ergonomic program management guidelines, for meatpacking plants, 6:262-263 OSHA standards, 6:262, 6:263 specific work-related injuries, 6:256 nonfatal occupational injuries and illnesses, incidence rates for, 6:257t scope of problem, 6:256-257 Low-boiling catalytic reformer fractionator residue. See Petroleum distillates Low HDL cholesterol, risk, 6:356 Low-level subacute toxicity signs and symptoms, 1:365, 1:366 Low molecular weight (LMW) proteinuria, 1:573 Loxiol g 20. See Stearic acid LPT. See Polymethyl methacrylate LS178Y mouse lymphoma assay, 2:737 1,2-Terphenyl. See Terphenyl Lubricating oils (motor/aviation oils), 5:353. See also White oils chemical and physical properties, 5:353 exposure assessment, 5:354 guidelines of exposure, 5:354 production and use, 5:353 toxic effects, 5:354 Lubricating stock distillates, 5:352 Lucidol. See Dibenzoyl peroxide Lucite. See Polymethyl methacrylate Lunac s 20. See Stearic acid Lung airways mechanism for particle deposition, 5:72f Lung function tests, 1:531 Lung mesotheliomas, 1:659 Lung tumors F344/NCr Rats, 5:192t Lupolen. See Polyethylene Lupolen n. See Polyethylene Luprosil. See Propionic acid Luran. See Styrene-acrylonitrile (SAN) Luria-Nebraska battery, 1:614 Lustran. See Styrene-acrylonitrile (SAN) Lustrex hp 77. See Polystyrene 2,4-lutidine. See Di- and Trimethylpyridines 2,6-lutidine. See Di- and Trimethylpyridines Luxan Black R. See 4-Aminodiphenylamine; *p*-Aminodiphenylamine Lyddite. See Picric acid L5178Y mouse lymphoma assay, 2:748 Lysoform. See Formaldehyde

M 920. See Polymethyl methacrylate MA. See N-Methylaniline MAA. See Methyl acetoacetate Macaca fascicularis, selenium maximum dose, 1:853 Macrogol. See Polyethylene glycols Macrophagic myofasciitis (MMF), 1:243 Magnacide. See Acrolein Magnacide H and B. See Acrolein Magnesium, 1:145 chemical and physical properties, 1:145 exposure assessment, 1:146 air, 1:146 biomonitoring/biomarkers, 1:146 production and use, 1:145-146 standards, regulations, or guidelines of exposure, 1:148 toxic effects, 1:146-148 clinical cases, 1:147 experimental studies, 1:146-147 human experience, 1:147-148 Magnesium chloride, 1:146 Magnetic resonance imaging (MRI), 1:610, 1:623-624 MAK. See Methyl n-amyl ketone Mako H. See 1,4-Phenylenediamine Malathion, 1:60, 4:1147 chemical and physical properties, 4:1148 exposure assessment, 4:1148-1149 guidelines of exposure, 4:1155 production and use, 4:1148 toxic effects experimental studies, 4:1149-1153 human experience, 4:1153-1155 Maleic acid, 3:571 chemical and physical properties, 3:573 guidelines of exposure, 3:574 production and use, 3:573 toxic effects experimental studies, 3:573-574 human experience, 3:574 cis-Maleic acid. See Maleic acid Maleic acid, bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) maleate Maleic acid, dibutyl ester. See Dibutyl maleate Maleic acid, diethyl ester. See Diethyl maleate Maleic acid, diisopropyl ester. See Diisopropyl maleate Maleic acid, dimethyl ester. See Dimethyl maleate Maleic acid, dipentyl ester. See Dipentyl maleate Maleic acid hydrazide. See Maleic hydrazide Maleic hydrazide, 2:912 chemical and physical properties, 2:913 environmental impact, studies, 2:915 exposure assessment, 2:913 guidelines of exposure, 2:915 production and use, 2:913 toxic effects carcinogenesis, 2:914 cellular effects studies, 2:914–915 chronic and subchronic toxicity, 2:913 experimental studies, 2:913 human experience, 2:915 pharmacokinetics, metabolism, and mechanisms, 2:914

reproductive and developmental, 2:914 Malenic acid. See Maleic acid Malic acid, 3:514 chemical and physical properties, 3:514 exposure assessment, 3:514 guidelines of exposure, 3:515 production and use, 3:514 toxic effects experimental studies, 3:514-515 human experience, 3:515 Malignant hyperthermia susceptibility (MHS), 1:151 Malonic acid, 3:512 chemical and physical properties, 3:512 exposure assessment, 3:512 guidelines of exposure, 3:513 production and use, 3:512 toxic effects experimental studies, 3:512-513 human experience, 3:513 Malonic acid, diethyl ester. See Diethyl malonate Malonic acid, dimethyl ester. See Dimethyl malonate Malonic ester. See Diethyl malonate Malononitrile chemical and physical properties, 2:950t-951t, 2:978 experimental studies, 2:978-979 exposure assessment, 2:978 exposure standards, 2:979 human experience, 2:979 production and use, 2:978 toxic effects, 2:978-979 Mammalian cell systems, 1:395 Manganese acute toxicity, 1:610-611 benchmark dose, 1:614 biological monitoring, 1:623-625 blood and urine manganese concentrations, 1:624 effect monitoring, 1:625 magnetic resonance imaging, 1:623-624 in vivo neutron activation, 1:624-625 carcinogenicity and mutagenicity, 1:621 chemical and physical properties, 1:608, 1:609t odor and warning properties, 1:608 clinical features of manganism, 1:611-612 cyclopentadienyl manganese tricarbonyl, 1:611 developmental neurotoxicity., 1:620-621 developmental toxicity, 1:619-620 effects on fertility, 1:618-619 exposure assessment, 1:610 exposure to manganese and risk of neurotoxicity, 1:612-616 inorganic manganese, 1:610-611, 1:617-618, 1:619-620, 1:621 kinetics and metabolism, 1:621-623 interindividual variations in manganese kinetics, 1:622 kinetics of MMT, 1:623 transport via the olfactory tract, 1:623 uptake of manganese in the brain, 1:622-623 long-term toxicity, 1:611-618 methylcyclopentadienyl manganese tricarbonyl, 1:611 MMT, 1:618, 1:620, 1:621 Mn-exposed workers

Manganese (Continued) epidemiological studies showing neurobehavioral effects in, 1:613t neurotoxicity, 1:611-617 production and use, 1:608-610 reproductive toxicity, 1:618-619 respiratory toxicity and other systemic effects, 1:617-618 standards, 1:625 toxic effects, 1:610-621 Manganese dioxide (MnO₂), 1:608, 1:620, 1:622 Manganese neurotoxicity, 1:57 Manganese toxicity, 1:58 Manganism, clinical features, 1:611, 1:612t Manhattan Project, 1:772, 1:773 Man-made vitreous fibers (MMVFs), 5:273 Mann model, 1:483 Mapolose m25. See Methyl cellulose Mapolose 60sh50. See Methyl cellulose Margarite. See Mica Marine Diesel Fuel. See Kerosene Marison Forte. See Pentachloronitrobenzene Marlex 50. See Polyethylene Maroxol-50. See 2,4-Dinitrophenol Marsh gas. See Methane Massive hematemesis, 2:966 Material Safety Data Sheet (MSDS), 2:770, 5:49 Material thermal conductivity, 6:48t Maximum allowable concentration (MAC), 1:693 Maximum forced expiratory volume (MEFV), 1:717 Maximum permissible concentration (MPC), 1:805 Maximum tolerated dose (MTD), 2:710, 2:964, 6:459 MBK. See Methyl n-butyl ketone; Methyl isobutyl ketone MBOCA. See 4,4'-Methylenebis(2-chloroaniline) MCA. See 3-Chloroaniline; m-Chloroaniline; 3-Methylcholanthrene Mc 4000cp. See Methyl cellulose MCF. See Methyl chloroformate MCH. See Methylcyclohexane Mco 8000. See Methyl cellulose Mc 20000s. See Methyl cellulose MDA. See 4,4'-Methylenedianiline; 4,4'-Methylenedianiline dihydrochloride MDEA. See Monomethyldiethanolamine MDI. See Mental development index MEA. See Ethylamine; Monoethanolamine MEA neurochips. See Microelectrode array (MEA) neurochips Mechanistic-based dose-response models, 6:483 Mechlorethamine, 2:717 Median lethal dose (MLD), 1:369, 1:676 Medical examination health in cold work, 6:30-31 Medications and recreational drugs, for heat stress, 6:70 Medium equivalent aerodynamic diameter (MMAD), 2:752 Medium volume captor (MVC), 1:444 Meerschaum. See Sepiolite MeIQ, methyl-IQ. See 2-Amino-3,4-dimethylimidazo[4,5-f] quinoline MeIQx. See 2-Amino-3,8-dimethylimidazo[4,5-f]quinoxaline Meisei Teryl Diazo Blue HR. See 3,3'-Dimethoxybenzidine

MEK. See Methyl ethyl ketone MEK peroxide. See Methyl ethyl ketone peroxide Melamine, 2:908 chemical and physical properties, 2:909 environmental impact, studies, 2:912 exposure assessment, 2:909 guidelines of exposure, 2:912 production and use, 2:909 toxic effects, 2:909 carcinogenesis, 2:911 cellular effects studies, 2:911–912 chronic and subchronic toxicity, 2:909-910 experimental studies, 2:909 human experience, 2:912 pharmacokinetics, metabolism, and mechanisms, 2:910-911 reproductive and development, 2:911 Melamine-formaldehyde resins, 4:1020. See also Formaldehyde exposure assessment, 4:1020 production and use, 4:1020 toxic effects, 4:1020 experimental studies, 4:1020-1021 human experience, 4:1021 Melamine, polymer with formaldehyde. See Melamineformaldehyde resins Melanogenesis, 1:81 Melanoma-like lesions, 1:82 Melinite. See Picric acid Mellose. See Methyl cellulose Membrane-bound enzymes, 1:781 Memory-MAST tests, 6:343 Mental development index (MDI), 1:402 Menthadiene. See Limonene Mentha-1,8-diene. See Limonene 1,8(9)-p-Menthadiene. See Limonene DL-p-Mentha-1,8-diene. See Limonene p-Mentha-1,8-diene. See Limonene p-Menthane hydroperoxide, 4:586 chemical and physical properties, 4:586 exposure assessment, 4:586 production and use, 4:586 toxic effects. 4:586 p-Menthyl hydroperoxide. See p-Menthane hydroperoxide Mercaptans, 4:1042 Mercaptobenzothiazole animal and human studies, 4:1064-1065 chemical and physical properties, 4:1064 Mercaptobutanedioic acid. See Thiomalic acid N-(2-Mercaptoethyl)benzenesulfonamide. See Bensulide N-(Mercaptomethyl) phthalimide-S-(O,O-dimethyl phosphorodithioate). See Phosmet 2-Mercaptopropane. See 2-Propanethiol 3-Mercaptopropanol. See Propanethiol Mercaptosuccinic acid. See Thiomalic acid 2-Mercaptosuccinic acid, 1:524 DL-Mercaptosuccinic acid. See Thiomalic acid α -Mercaptosuccinic acid, butanedioic acid, mercapto-. See Thiomalic acid Mercaptosuccinic acid diethyl ester S-ester with O,O-dimethyl phosphorothioate. See Malathion

Mercurials, as potent inhibitors of mitosis, 1:220 Mercuric chloride, 1:219 chemical and physical properties, 1:219-220 exposure assessment, 1:220 production and use, 1:220 standards, regulations, or guidelines of exposure, 1:222 studies on environmental impact, 1:222 toxic effects, 1:220-222 Mercurous chloride, 1:219 chemical and physical properties, 1:219-220 exposure assessment, 1:220 production and use, 1:220 standards, regulations, or guidelines of exposure, 1:222 studies on environmental impact, 1:222 toxic effects, 1:220-222 Mercury, 1:213-214, 1:215f chemical and physical properties, 1:214-215 environmental impact, 1:218 production and use, 1:215-217 standards, regulations, or guidelines of exposure, 1:218 toxic effects, 1:217 experimental studies, 1:217 human experience, 1:217-218 Merpol. See Ethylene oxide Mesaconic acid, 3:576 chemical and physical properties, 3:576 production and use, 3:576 toxic effects experimental studies, 3:576 Mesitylene, 2:191 Mesityl oxide, 3:831 chemical and physical properties, 3:831-832 environmental impact, studies, 3:834 exposure assessment, 3:832 guidelines of exposure, 3:834 production and use, 3:832 toxic effects experimental studies, 3:832-833 human experience, 3:833-834 Meta-analysis, hazard identification, 6:454 Metabolic acidosis, 1:972 Metabolizing enzymes, 6:456 N-acetyltransferases, 6:456-457 cytochrome P450s (CYPs), 6:456 epoxide hydrolases catalyze, 6:456 glutathione-S-transferases (GST), 6:457 NAD(P)H:quinone oxidoreductases, 6:456 Uridine Diphosphate (UDP)-glycosyltransferases, 6:456 Metacetonic acid. See Propionic acid Metaformaldehyde. See Paraformaldehyde Metaisosystox sulfoxide. See Oxydemeton methyl Metaldehyde, 3:677 chemical and physical properties, 3:677 production and use. 3:677 toxic effects, 3:677-678 Metal fume fever, 1:179 Metal inert gas welding (MIG), 1:571 Metallocenes, 1:23, 1:24 Metallothionein (MT), 1:170

Metallurgical oils, 5:352 Metal salts, bromates, 1:1091 Metal salts, bromides, 1:1089, 1:1091 Metals, as neurotoxic compounds, 1:56 lead, 1:56 manganese, 1:57 mercury, 1:56-57 Metal working fluid (MWF), 6:1 agents present in, 6:1 exposure assessment, 6:2 production and use, 6:2 standards, regulations, or guidelines of exposure, 6:7 toxic effects, 6:2 acute toxicity, 6:2, 6:3 carcinogenesis, 6:4 chronic and subchronic toxicity, 6:4 clinical cases, 6:5 epidemiology studies, 6:5-7 experimental studies, 6:2 human experience, 6:4 Metaplex NO. See Polymethyl methacrylate Metaupon. See Oleic acid Metaxite. See Asbestos Methacide. See Toluene Methacraldehyde. See Methacrylaldehyde Methacrolein. See Methacrylaldehyde Methacrolein diacetate. See 2-Methyl-2-propene-1,1-diol diacetate Methacrylaldehyde, 3:694 chemical and physical properties, 3:695 Methacrylate. See Methyl acrylate Methacrylate acid butyl ester, See n-Butyl Methacrylate Methacrylates, 4:108, 4:110 physical and chemical properties, 4:109 Methacrylic acid, 3:542 chemical and physical properties, 3:542 exposure assessment, 3:543 guidelines of exposure, 3:544-545 production and use, 3:543 toxic effects, 3:543 experimental studies, 3:543-544 human experience, 3:544 Methacrylic acid, butyl ester, See n-Butyl Methacrylate Methacrylic acid n-butyl ester, See n-Butyl Methacrylate Methacrylic acid ethyl ester. See Ethyl methacrylate Methacrylic acid, isobutyl ester. See Isobutyl methacrylate Methacrylic acid methyl ester. See Methyl methacrylate Methacrylic acid methyl ester polymers. See Polymethyl methacrylate Methallyl n-octyl sulfoxide, 4:1063 Methan 21. See Formaldehyde Methanal. See Formaldehyde Methane chemical and physical properties, 2:2 exposure assessment, 2:2 exposure guidelines, 2:4 production and use, 2:2 toxic effects, 2:4 Methanecarboxylic acid. See Acetic acid Methanedicarboxylic acid. See Malonic acid

Methanedicarboxylic acid, diethyl ester. See Diethyl malonate Methane dichloride. See Methylene chloride Methane, diphenylene-. See Fluorene Methaneorthosiliconic acid triethyl ester. See Methyltriethoxy silane Methanesulfinic acid. See Formaldehyde sodium sulfoxylate Methanesulfonic acid animal and human studies, 4:1063 chemical and physical properties, 4:1063 Methanesulfonyl chloride, 4:1063 animal and human studies, 4:1063-1064 chemical and physical properties, 4:1063 Methane tetrachloride. See Carbon tetrachloride Methane trichloride. See Chloroform Methane, triiodo-. See Iodoform 4,5-Methanochrysene. See 4H-Cyclopenta[def]chrysene Methanoic acid. See Formic acid Methanol, 3:917 chemical and physical properties, 3:918 exposure assessment, 3:918 guidelines of exposure, 3:926 production and use, 3:918 toxic effects experimental studies, 3:918-924 human experience, 3:924-926 Methemoglobin, 2:518 Methenyl chloride. See Chloroform Methenyl tribromide, tribromomethane. See Bromoform Methenyl trichloride. See Chloroform Methidathion, 4:1155 chemical and physical properties, 4:1156 exposure assessment, 4:1156 guidelines of exposure, 4:1159 production and use, 4:1156 toxic effects, 4:1156 experimental studies, 4:1156-1159 human experience, 4:1159 Methionine synthase deficiency, 1:979 Methocel 10. See Methyl cellulose Methocel 15. See Methyl cellulose Methocel 181. See Methyl cellulose Methocel 400. See Methyl cellulose Methocel 4000. See Methyl cellulose Methocel a. See Methyl cellulose Methocel chg. See Methyl cellulose Methocel 400cps. See Methyl cellulose Methocel 4000cps. See Methyl cellulose Methocel HG. See Hydroxypropyl methylcellulose Methocel MC. See Methylcellulose Methocel mc. See Methyl cellulose Methocel mc25. See Methyl cellulose Methocel mc4000. See Methyl cellulose Methocel mc 8000. See Methyl cellulose Methocel sm 100. See Methyl cellulose Method ID-125G, 1:610 Methopt. See Hydroxypropyl methyl cellulose 2-Methoxy-1-aminobenzene. See o-Anisidine 4-Methoxy-1-aminobenzene. See p-Anisidine o-Methoxyaniline. See o-Anisidine

p-Methoxyaniline. See p-Anisidine 2-Methoxybenzenamine. See o-Anisidine 4-Methoxybenzenamine. See p-Anisidine Methoxybenzene. See Anisole 4-Methoxybutanol. See Butylene glycol monomethyl ether 4-Methoxy-1-butanol. See Butylene glycol monomethyl ether 4-(Methoxycarbonyl)aniline. See Methyl p-aminobenzoate p-(methoxycarbonyl)aniline. See Methyl p-aminobenzoate Methoxycarbonyl chloride. See Methyl chloroformate Methoxycarbonylethylene. See Methyl acrylate 2-(Methoxycarbonyl) phenol. See Salicylates 4-(Methoxycarbonyl) phenol. See Methyl paraben p-(Methoxycarbonyl)phenol. See Methyl paraben Methoxydiglycol. See Diethylene glycol monomethyl ether 2-Methoxy ethanol. See Ethylene glycol monomethyl ether 2-Methoxyethanol acetate. See Ethylene glycol monomethyl ether acetate 2-(2-Methoxyethoxy)ethanol. See Diethylene glycol monomethyl ether 2-(2-Methoxyethoxy) ethanol acetate. See Diethylene glycol monomethyl ether acetate 2-[2-(2-Methoxy)ethoxy]ethanol. See Triethylene glycol monomethyl ether Methoxy ethoxy propanol. See Propylene glycol monoisopropyl ether 3-Methoxy-4-hydroxybenzaldehyde. See Vanillin 1-Methoxy-2-hydroxypropane. See Propylene glycol monomethyl ether (PGME) Methoxyisopropanol. See Propylene glycol monomethyl ether (PGME) 2-Methoxylethyl phthalate. See Dimethoxyethyl phthalate Methoxymethane. See Dimethyl ether 2-Methoxy-2-methylbutane. See t-Amyl methyl ether 2-Methoxy-1-methylethanol. See Propylene glycol monomethyl ether (PGME) 1-(2-(2-Methoxy-1-methylethoxy)-1-methylethoxy)-2-propanol. See Tripropylene glycol monomethyl ether 1-(2-Methoxy-1-methylethoxy)-2-propanol. See Dipropylene glycol monomethyl ether 1(or 2)-(2-Methoxymethylethoxy) propanol acetate. See Propylene glycol monomethyl ether acetate 2-Methoxy-1-methylethyl acetate. See Propylene glycol monomethyl ether acetate 2-Methoxy-2-methylpropane. See Methyl t-butyl ether 1-Methoxy-2-nitrobenzene. See 2-Nitroanisole 2-Methoxynitrobenzene. See 2-Nitroanisole S-[(5-Methoxy-2-oxo-1,3,4-thiadiazole-3-(2H)-yl)methyl] O,O-dimethyl-phosphorodithioate. See Methidathion o-Methoxyphenol. See Guaiacol p-Methoxyphenol. See Hydroquinone monomethyl ether o-Methoxyphenylamine. See o-Anisidine p-Methoxyphenylamine. See p-Anisidine Methoxypolyethylene glycols. See Polyethylene glycol methyl ethers 1-Methoxypropan-2-ol. See Propylene glycol monomethyl ether (PGME) 1-Methoxy-2-propanol. See Propylene glycol monomethyl ether (PGME)

2-Methoxy-4-propenylphenol methyl ether. See Methyleugenol

3-Methoxypropionitrile chemical and physical properties, 2:950t-951t, 2:976 exposure standards, 2:976 toxic effects, 2:976 1(1-Methoxy-2-propoxyethoxy)-2-propanol. See Dipropylene glycol monopropyl ether Methoxypropyl acetate (MPA). See Propylene glycol monomethyl ether acetate Methoxy triglycol. See Triethylene glycol monomethyl ether Methulose. See Methyl cellulose Methylacetaldehyde. See Propionaldehyde Methyl acetate, 4:67 chemical and physical properties, 4:67 exposure assessment, 4:70 workplace methods, 4:71 odor and warning properties, 4:67 production and use, 4:67, 4:70 standards, regulations, or guidelines of exposure, 4:71 studies on environmental impact, 4:72 toxic effects, 4:71 clinical cases, 4:71 experimental studies, 4:71 human experience, 4:71 Methylacetic acid. See Propionic acid Methyl acetic ester. See Methyl acetate Methyl acetoacetate, 4:95 chemical and physical properties, 4:95 exposure assessment, 4:96 odor and warning properties, 4:96 production and use, 4:96 studies on environmental impact, 4:97 toxic effects, 4:96 acute toxicity, 4:96 carcinogenesis, 4:97 chronic and subchronic toxicity, 4:96 experimental studies, 4:96 genetic and related cellular effects studies, 4:97 human experience, 4:97 pharmacokinetics, metabolism, and mechanisms, 4:96 reproductive and developmental, 4:96, 4:97 Methyl acetone. See Methyl ethyl ketone Methyl acetylacetate. See Methyl acetoacetate Methyl acetylacetonate. See Methyl acetoacetate Methylacetylene. See Propyne Methyl acrolein. See Crotonaldehyde 2-Methylacrolein. See Methacrylaldehyde β-Methylacrolein. See Crotonaldehyde Methyl acrylate, 4:110 chemical and physical properties, 4:110 exposure assessment, 4:113 workplace methods, 4:113 odor and warning properties, 4:113 production and use, 4:113 standards, regulations, or guidelines of exposure, 4:114 studies on environmental impact, 4:114 toxic effects, 4:113 acute toxicity, 4:113 carcinogenesis, 4:114 chronic and subchronic toxicity, 4:113

experimental studies, 4:113 genetic and related cellular effects studies, 4:114 human experience, 4:114 pharmacokinetics, metabolism, and mechanisms, 4:113, 4:114 Methyl acrylate (2-propenoic acid methyl ester). See Methyl acrylate Methyl acrylate (inhibited). See Methyl acrylate Methyl acrylate (stabilized with 200 ppm of MEHQ). See Methyl acrylate 2-Methylacrylic acid, butyl ester, See *n*-Butyl Methacrylate 2-Methylacrylic acid ethyl ester. See Ethyl methacrylate 2-Methylacrylic acid methyl ester. See Methyl methacrylate 2-Methylacrylic, methyl ester. See Methyl methacrylate Methyl acrylonitrile chemical and physical properties, 2:950t-951t, 2:963 experimental studies, 2:963-964 exposure standards, 2:964 human experience, 2:962 odor and warning properties, 2:963 production and use, 2:963 reproductive and developmental effects, 2:964 toxic effects, 2:963-964, 2:964t Methyl adipate. See Dimethyl adipate Methyl adipate (VAN). See Dimethyl adipate Methyl adronal. See Methylcyclohexanol Methylal, 3:719 chemical and physical properties, 3:719 toxic effects, 3:719 Methyl alcohol. See Methanol Methyl aldehyde. See Formaldehyde Methyl allylidene diacetate. See 2-Methyl-2-propene-1,1-diol diacetate Methyl α -methylacrylate. See Methyl methacrylate Methylamine, 2:448 chemical and physical properties, 2:448 environmental impact, studies, 2:449 exposure assessment, 2:448 guidelines of exposure, 2:449 production and use, 2:448 toxic effects, 2:448-449 Methyl (B-hydroxyethyl)amine. See Monomethylethanolamine (Methylamino)benzene. See N-Methylaniline 1-Methyl-2-aminobenzene. See o-Toluidine Methyl-2-aminobenzene. See o-Toluidine 2-Methyl-1-aminobenzene. See o-Toluidine N-Methylaminobenzene. See N-Methylaniline Methyl p-aminobenzoate, 4:179 chemical and physical properties, 4:179 exposure assessment, 4:179 toxic effects, 4:180 Methyl 2-aminobenzoate. See Methyl o-aminobenzoate Methyl 4-aminobenzoate. See Methyl p-aminobenzoate Methyl o-aminobenzoate, 4:184 chemical and physical properties, 4:184 exposure assessment, 4:184 production and use, 4:184 standards, regulations, or guidelines, 4:185 toxic effects, 4:185 acute toxicity, 4:185

carcinogenesis, 4:185 chronic and subchronic toxicity, 4:185 experimental studies, 4:185 genetic and related cellular effects studies, 4:185 neurological, pulmonary, skin sensitization, 4:185 pharmacokinetics, metabolism, and mechanisms, 4:185 reproductive and developmental, 4:185 Methyl o-aminobenzoate. See Methyl o-aminobenzoate 2-(Methylamino)ethanol. See Monomethylethanolamine N-methylaminoethanol. See Monomethylethanolamine N-Methyl-2-aminoethanol. See Monomethylethanolamine Methyl amyl acetate. See sec-Hexyl acetate; Hexyl acetates 2-Methylamyl acetate. See sec-Hexyl acetate Methylamyl alcohol. See Methyl isobutyl carbinol Methyl amyl ketone. See Methyl n-amyl ketone Methyl n-amyl ketone, 3:853 chemical and physical properties, 3:854 environmental impact, studies, 3:856 exposure assessment, 3:854 guidelines of exposure, 3:856 production and use, 3:854 toxic effects experimental studies, 3:854-856 human experience, 3:856 Methyl aniline. See N-Methylaniline 2-Methylaniline. See o-Toluidine 3-Methylaniline. See m-Toluidine 4-Methylaniline. See P-Toluidine; p-Toluidine N-Methylaniline, 2:552, 2:623 chemical and physical properties, 2:552, 2:623-624 exposure assessment, 2:552, 2:624 guidelines of exposure, 2:552, 2:624 production and use, 2:552, 2:624 toxic effects, 2:552, 2:624 o-Methylaniline. See o-Toluidine Methyl aniline-4-carboxylate. See Methyl p-aminobenzoate Methyl anol. See Methylcyclohexanol Methyl anthranilate. See Methyl o-aminobenzoate 4-Methylbenzaldehyde. See p-Tolualdehyde 2-Methylbenzenamine. See o-Toluidine 3-Methylbenzenamine. See m-Toluidine 4-Methylbenzenamine. See p-Toluidine Methylbenzene. See Toluene N-Methylbenzeneamine. See N-Methylaniline Methyl benzenecarboxylate. See Methyl benzoate 2-Methyl-1,3-benzenediamine. See 2,6-Toluenediamine 2-Methyl-1,4-benzenediamine. See 2,5-Toluenediamine 3-Methyl-1,2-benzenediamine. See 2,3-Toluenediamine 4-Methyl-1,2-benzenediamine. See 3,4-Toluenediamine 4-Methyl-1,3-benzenediamine. See 2,4-Toluenediamine 5-Methyl-1,3-benzenediamine. See 3,5-Toluenediamine 4-Methyl benzenemethanol. See p-Tolyl alcohol Methyl benzoate, 4:152 chemical and physical properties, 4:154 exposure assessment, 4:154 odor and warning properties, 4:154 production and use, 4:154 standards, regulations, or guidelines of exposure, 4:156 studies on environmental impact, 4:156

toxic effects, 4:154 acute toxicity, 4:154, 4:156 chronic and subchronic toxicity, 4:156 experimental studies, 4:154 genetic and related cellular effects studies, 4:156 human experience, 4:156 neurological, pulmonary, skin sensitization, 4:156 pharmacokinetics, metabolism, and mechanisms, 4:156 reproductive and developmental, 4:156 Methylbenzol. See Toluene 4-Methylbenzyl alcohol. See p-Tolyl alcohol Methyl-\beta-ethylacrolein chemical and physical properties, 3:695 Methylbiphenyl, 2:235 chemical and physical properties, 2:235 production and use, 2:235-236 Methyl bivinyl. See 2-Methyl-1,3-butadiene Methyl bromide chemical and physical properties, 3:10-11 exposure assessment, 3:11-12 guidelines of exposure, 3:17-18 production and use, 3:11 toxic effects experimental studies, 3:12-15 human experience, 3:15-17 2-Methylbutadiene. See 2-Methyl-1,3-butadiene 2-Methyl-1,3-butadiene, 2:76 2-Methylbuta-1,3-diene. See 2-Methyl-1,3-butadiene 2-Methyl-1,3-butadiene chemical and physical properties, 2:76 exposure assessment, 2:76 higher alkadienes, 2:79 polyenes, 2:79 production and use, 2:76 toxic effects. 2:77 acute toxicity, 2:77 carcinogenesis, 2:77 human experience, 2:78 pharmacokinetics, metabolism, and mechanisms, 2:77 single-cell gel electrophoresis assay (SCGE), 2:78 3-Methyl-1,3-butadiene. See 2-Methyl-1,3-butadiene 2-Methylbutanal. See 2-Methylbutyraldehyde 3-methylbutanamine. See Isoamylamine 3-Methyl-1-butanamine. See Isoamylamine 2-Methylbutane, 2:19 chemical and physical properties, 2:19 exposure assessment, 2:20 exposure guidelines, 2:20-21 occupational exposure limits, 2:19 production and use, 2:20 toxic effects, 2:20 Methyl butanoate. See Methyl butyrate Methyl n-butanoate. See Methyl butyrate 3-Methylbutanoic acid. See Isovaleric acid 3-Methylbutanoic acid ethyl ester. See Ethyl isovalerate 2-Methylbutan-1-ol. See Isoamyl alcohols 2-Methyl-2-butanol. See tert-Amyl alcohol 2-Methylbutan-2-ol. See tert-Amyl alcohol 3-Methylbutanol. See 3-Methyl-1-butanol

3-Methyl-1-butanol, 3:957 3-Methylbutan-1-ol. See 3-Methyl-1-butanol 3-Methyl-2-butanol, 3:960 3-Methylbutan-2-ol. See 3-Methyl-2-butanol 3-Methyl-2-butanol chemical and physical properties, 3:960 exposure assessment, 3:961 guidelines of exposure, 3:961 production and use, 3:960-961 toxic effects, 3:961 DL-2-Methyl-1-butanol. See Isoamyl alcohols DL-3-Methyl-2-butanol. See 3-Methyl-2-butanol 3-Methyl-1-butanol acetate. See Isoamyl acetate 3-Methylbutanol nitrite. See Isoamyl nitrite Methyl butanone. See Methyl isopropyl ketone 2-Methyl-3-butanone. See Methyl isopropyl ketone 3-Methyl-2-butanone. See Methyl isopropyl ketone 3-Methyl-1-butanyl acetate. See Isoamyl acetate (Z)-2-Methyl-2-butendioic acid. See Citraconic acid 2-Methyl-2-butenedioic acid. See Citraconic acid (E)-2-Methyl-2-butenedioic acid. See Mesaconic acid trans-Methylbutenedioic acid. See Mesaconic acid 2-Methyl-1-butene-3-one. See Methyl isopropenyl ketone 3-Methyl-3-butene-2-one. See Methyl isopropenyl ketone Methyl butenone. See Methyl isopropenyl ketone 3-Methyl-1-butyl acetate. See Isoamyl acetate 3-Methyl-but-1-yl acetate. See Isoamyl acetate 3-Methyl-1-butyl acetate (isoamyl acetate). See Isoamyl acetate β-Methyl butyl acetate. See Isoamyl acetate 2-Methyl-butylacrylate, See n-Butyl Methacrylate 3-Methylbutylamine. See Isoamylamine 2-Methyl-, butyl ester, See *n*-Butyl Methacrylate 3-Methylbutyl ester of acetic acid. See Isoamyl acetate 2-Methylbutyl ethanoate. See Isoamyl acetate 3-Methylbutyl ethanoate. See Isoamyl acetate Methyl *t*-butyl ether, **3:**602 cancers causes, 3:606t cancers in Sprague–Dawley rats, 3:607t carcinogenicity of, 3:606t chemical and physical properties, 3:603 exposure assessment, 3:603-604 guidelines of exposure, 3:610-612 incidence of kidney cancers, 3:607t metabolic pathway for, 3:605f neurotoxic symptoms by age, 3:610t neurotoxic symptoms by gender, 3:609t regulations and guidelines, 3:611t symptoms of, 3:609t toxic effects experimental studies, 3:604-608 human experience, 3:608-610 treatment of human gallstones, 3:610t 3-Methylbutyl formate. See Isoamyl formate Methyl butyl ketone. See Methyl n-butyl ketone Methyl *n*-butyl ketone, 1:58, 3:810 chemical and physical properties, 3:811 environmental impact, studies, 3:818-819 exposure assessment, 3:811-813 guidelines of exposure, 3:818

production and use, 3:811 toxic effects experimental studies, 3:813-816 human experience, 3:816-818 3-Methylbutyl nitrite. See Isoamyl nitrite 3-Methylbutyne, 2:83 2-Methylbutyraldehyde, 3:682 chemical and physical properties, 3:682 Methyl butyrate, **4:**102 chemical and physical properties, 4:102, 4:103 odor and warning properties, 4:103 production and use, 4:103 toxic effects, 4:103 acute toxicity, 4:103 carcinogenesis, 4:103 experimental studies, 4:103 pharmacokinetics, metabolism, and mechanisms, 4:103 Methyl n-butyrate. See Methyl butyrate β-Methylbutyric acid. See Isovaleric acid Methyl carbethoxymethyl phthalate. See Methyl phthalyl ethyl glycolate Methyl carbinol. See Ethanol Methyl 4-carbomethoxybenzoate. See Dimethyl terephthalate Methyl carbonate. See Dimethyl carbonate Methylcatechol. See Guaiacol Methyl cellulose, 3:642, 4:943 chemical and physical properties, 4:944 determination in atmosphere, 3:642 environmental impact, studies, 4:944 exposure assessment, 4:944 guidelines of exposure, 4:944 production and use, 4:944 toxic effects, 3:642-643, 4:944 Methyl cellulose-a. See Methyl cellulose Methyl cellulose ether. See Methyl cellulose Methylcel MC. See Methyl cellulose Methyl chloride, 1:58, 3:2-10 chemical and physical properties, 3:2 environmental impact, studies, 3:10 exposure assessment, 3:3 air. 3:3 biomonitoring/biomarkers, 3:3 blood. 3:3 urine, 3:4 workplace methods, 3:3 guidelines of exposure, 3:10 production and use, 3:2-3 toxic effects, 3:4 acute toxicity, 3:4-5 cellular effects studies, 3:7-8 chronic/subchronic toxicity, 3:5-6 human experience, 3:8 neurological, pulmonary, skin sensitization, 3:8 Methyl chloridocarbonate. See Methyl chloroformate 2-Methyl-4-chloroaniline. See 4-Chloro-o-toluidine 2-Methyl-5-chloroaniline. See 5-Chloro-o-toluidine Methyl chlorocarbonate. See Methyl chloroformate Methyl chloroform, 3:72 chemical and physical properties, 3:72-73

exposure assessment, 3:73-74 guidelines of exposure, 3:78 production and use, 3:73 toxic effects, 3:74 experimental studies, 3:74-77 human experience, 3:77-78 Methyl chloroformate, 4:393 Methylchloroformate. See Methyl chloroformate Methyl chloroformate chemical and physical properties, 4:393 odor and warning properties, 4:393 production and use, 4:395 standards, regulations, or guidelines for exposure, 4:397 toxic effects, 4:397 acute toxicity, 4:397 human experience, 4:397 Methyl chloromethyl ether. See Chloromethyl methyl ether Methyl chlorophos. See Trichlorfon Methylcholanthrene. See 3-Methylcholanthrene 3-Methylcholanthrene, 5:401 chemical and physical properties, 5:401 exposure assessment, 5:401 guidelines of exposure, 5:402 production and use, 5:401 toxic effects, 5:402 3-Methylcholanthrene (MCA), 1:526 20-Methylcholanthrene. See 3-Methylcholanthrene Methyl cinnamate, 4:173 chemical and physical properties, 4:173 odor and warning properties, 4:173 production and use, 4:173 toxic effects, 4:173 acute toxicity, 4:173 chronic and subchronic toxicity, 4:173 experimental studies, 4:173 genetic and related cellular effects studies, 4:173 human experience, 4:173 neurological, pulmonary, skin sensitization, 4:173 pharmacokinetic, metabolism, and mechanisms, 4:173 Methyl cinnamylate. See Methyl cinnamate Methyl cyanoacetate chemical and physical properties, 2:950t-951t, 2:980 toxic effects, 2:980 Methyl cyanoformate chemical and physical properties, 2:950t-951t, 2:981 toxic effects, 2:981 Methylcyclohexane, 2:111 chemical and physical properties, 2:111 environmental impact, studies, 2:113 exposure assessment, 2:112 guidelines of exposure, 2:113 production and use, 2:112 toxic effects, 2:112-113 Methylcyclohexanol chemical and physical properties, 4:31 exposure assessment, 4:32 biomonitoring/biomarkers, 4:32 workplace methods, 4:32 odor and warning properties, 4:32

production and use, 4:32 standards, regulation, or guidelines of exposure, 4:32 toxic effects, 4:32 acute toxicity, 4:32 chronic and subchronic toxicity, 4:32 experimental studies, 4:32 human experience, 4:32 pharmacokinetics, metabolism, and mechanisms, 4:32 2-,3-,4-Methylcyclohexanol. See Methylcyclohexanol 2-Methylcyclohexanone, 3:864 chemical and physical properties, 3:864 environmental impact, studies, 3:867 exposure assessment, 3:864-865 guidelines of exposure, 3:867 production and use, 3:864 toxic effects experimental studies, 3:865-866 human experience, 3:866-867 3-Methylcyclohexanone. See 2-Methylcyclohexanone 4-Methylcyclohexanone. See 2-Methylcyclohexanone o-Methylcyclohexanone. See 2-Methylcyclohexanone Methylcyclopentadienyl manganese tricarbonyl (MMT), 1:607 Methylcyclopentadienyl tricarbonyl (MMT), 1:57 Methylcyclopentane, 2:107 chemical and physical properties, 2:107 environmental impact, studies, 2:108 exposure assessment, 2:107 guidelines of exposure, 2:108 production and use, 2:107 toxic effects, 2:107-108 Methyldiethanolamine. See Monomethyldiethanolamine N-Methyldiethanolamine. See Monomethyldiethanolamine 2-Methyl-2,2-dimethyl-1-(1-methylethyl)-1,3-propanediyl ester. See 2,2,4-Trimethyl-1,3-pentanediol diisobutyrate Methyldinitrobenzene. See Dinitrotoluene 1-Methyl-2,3-dinitrobenzene. See 2,3-Dinitrotoluene 1-Methyl-2,4-dinitrobenzene. See 2,4-Dinitrotoluene 1-Methyl-3,5-dinitrobenzene. See 3,5-Dinitrotoluene 2-Methyl-1,3-dinitrobenzene. See 2,6-Dinitrotoluene 2-Methyl-1,4-dinitrobenzene. See 2,5-Dinitrotoluene 4-Methyl-1,2-dinitrobenzene. See 3,4-Dinitrotoluene 2-Methyl-4,6-dinitrophenol. See 4,6-Dinitro-o-cresol 4-Methyl-2,6-dinitrophenol. See 2,6-Dinitro-p-cresol Methyl-4,6-dinitrophenol. See 4,6-Dinitro-o-cresol 4-Methyldioxalone-2. See Propylene carbonate 6-Methyl-5,7-dioxaundecane. See Acetaldehyde butyl acetal 4-Methyl-1,3-dioxolan-2-one. See Propylene carbonate 4-Methyl-1,3-dioxol-2-one. See Propylene carbonate 4-Methyl-2,6-di-tert-butylphenol. See Di-tert-Butylmethylphenol 1',9-Methylene-1,2-benzanthracene. See 11H-Benz[b,c] aceanthrylene Methylene bichloride. See Methylene chloride 2,2'-Methylenebiphenyl. See Fluorene p,p'-Methylenebis(α -chloroaniline). See 4,4'-Methylenebis(2chloroaniline) Methylenebis(aniline). See 4,4'-Methylenedianiline 1,1'Methylenebisbenzene. See Diphenylmethane

4,4'-Methylenebisbenzeneamine. See 4,4'-Methylenedianiline

4,4'-Methylenebis(2-chloroaniline), 2:590, 2:679 chemical and physical properties, 2:590, 2:680 exposure assessment, 2:590, 2:680 guidelines exposure, 2:591 guidelines of exposure, 2:681 production and use, 2:590, 2:680 toxic effects, 2:590 experimental studies, 2:680 human experience, 2:681 pharmacokinetics, metabolism, and mechanisms, 2:680 4,4-Methylene bis(2-chloroaniline). See 4,4'-Methylenebis(2chloroaniline) 4,4'-Methylenebis(2-chlorobenzenamine). See 4,4'-Methylenebis (2-chloroaniline) 4,4'-Methylenebis(2-methylaniline), 2:589 chemical and physical properties, 2:589 guidelines of exposure, 2:590 production and use, 2:590 toxic effects, 2:590 Methylene-bis-orthochloroaniline. See 4,4'-Methylenebis(2chloroaniline) 1,1'-[Methylenebis(oxy)]bis. See Ethylal Methylene bromide, 3:25 chemical and physical properties, 3:26 exposure assessment, 3:26 guidelines of exposure, 3:27 production and use, 3:26 toxic effects, 3:26-27 Methylene bromide (dibromomethane). See Methylene bromide Methylenebutanedioic acid. See Itaconic acid Methylene chloride, 3:20 chemical and physical properties, 3:20-21 exposure assessment, 3:21-22 guidelines of exposure, 3:25 human experience, 3:25 as organic solvents, 1:58 production and use, 3:21 toxic effects experimental studies, 3:22-24 human experience, 3:24-25 Methylene chlorobromide, 3:49 chemical and physical properties, 3:49 exposure assessment, 3:50 guidelines of exposure, 3:52 production and use, 3:49 toxic effects, 3:50 experimental studies, 3:50-51 human experience, 3:52 4,5-Methylenechrysene. See 4H-Cyclopenta[def]chrysene Methylenedianiline. See 4,4'-Methylenedianiline; 4,4'-Methylenedianiline dihydrochloride 4,4'-Methylenedianiline, 2:588, 2:677 chemical and physical properties, 2:589 exposure assessment, 2:589 guidelines of exposure, 2:589 production and use, 2:589 toxic effects, 2:589 4,4'-Methylenedianiline dihydrochloride, 2:677 chemical and physical properties, 2:677

exposure assessment, 2:678 guidelines of exposure, 2:679 production and use, 2:678 toxic effects, 2:678 experimental studies, 2:678 human experience, 2:678-679 pharmacokinetics, metabolism, and mechanisms, 2:679 Methylene dibromide. See Methylene bromide Methylene dichloride. See Methylene chloride Methylene dimethyl ether. See Methylal 3,4-(Methylenedioxy) benzaldehyde. See Piperonal Methylenedioxy procatechuic aldehyde. See Piperonal Methylene glycol. See Formaldehyde Methylene oxide. See Formaldehyde Methylenesuccinic acid. See Itaconic acid Methylenetetrahydrofolate reductase (MTHFR), 1:483 2-Methylene-6,10,10-trimethyl bicyclo[7.2.0]undec-5-ene. See Caryophyllene 8-Methylene-4,11,11-(trimethyl) bicyclo[7.2.0]undec-4-ene. See Caryophyllene 2-Methylenpropionic acid. See Methacrylic acid Methyl ester. See Methyl acetoacetate; Methyl nitrite Methyl ester acetic acid. See Methyl acetate Methyl ester acrylic acid. See Methyl acrylate Methylester kyseliny acetoctove. See Methyl acetoacetate Methylester kyseliny anthranilove [Czech]. See Methyl oaminobenzoate Methylester kyseliny benzoove [Czech]. See Methyl benzoate Methylester kyseliny p-hydroxybenzoove [Czech]. See Methyl Paraben Methylester kyseliny isomaselne. See Methyl isobutyrate Methylester kyseliny salicylove [Czech]. See Salicylates Methyl ester of butanoic acid. See Methyl butyrate Methylester of 2-methyl-2-propenoic acid. See Methyl methacrylate Methyl ester of 2-propenoic acid. See Methyl acrylate Methylester propanoic acid. See Methyl propionate (1-Methyl-1,2-ethanediyl)bisoxybispropanol. See Tripropylene glycol 1-Methylethanethiol. See 2-Propanethiol N-Methylethanolamine. See Monomethylethanolamine N-Methyl-2-ethanolamine. See Monomethylethanolamine Methylethene. See Propene 4-(1-Methylethenyl)-1-methyl-cyclohexene. See Limonene Methyl ether. See Dimethyl ether 2-(1-Methylethoxy)ethanol. See Ethylene glycol monoisopropyl ether [(1-Methylethoxy)methyl]-oxirane. See Isopropyl glycidyl ether 1-Methylethyl acetate. See Isopropyl acetate Methylethylbenzene. See Isopropylbenzene; o/m/p-Methylethylbenzene 1-Methylethyl benzoate. See Isopropyl benzoate Methyl ethyl carbinol. See 2-Butanol Methylethylene. See Propene 1-Methylethylene carbonate. See Propylene carbonate Methyl ethylene glycol. See Propylene glycol Methyl ethylene oxide. See Propylene oxide ([(e)]-Methylethyl 3-[[ethylamino)methoxyphosphinothioyl] oxy]-2-butenoate). See Propetamphos

Methylethyl formate. See Isopropyl formate 2,2'-[(1-methylethylindene) bis(4,1-phenyleneoxymethylene)]bisoxirane. See Bisphenol A diglycidyl ether Methyl ethyl ketone, 3:754 chemical and physical properties, 3:754 environmental impact, studies, 3:778 exposure assessment, 3:756-759 guidelines of exposure, 3:778 as organic solvents, 1:58 production and use, 3:754-756 toxic effects, 3:759-778 epidemiology studies, 3:775-778 experimental studies, 3:759-771 human experience, 3:771-775 Methyl ethyl ketone peroxide, 4:559 chemical and physical properties, 4:559 exposure assessment, 4:559-560 production and use, 4:559 toxic effects, 4:560 Methylethyl methane. See n-Butane Methylethylolamine. See Monomethylethanolamine 4-Methyl-2-ethyl-1-pentanol. See 2-Ethyl-4-methyl-1-pentanol Methyl ethynyl ketone. See 3-Butyn-2-one Methyleugenol, 3:629 chemical and physical properties, 3:630 toxic effects, 3:630 o-Methyl eugenol ether. See Methyleugenol Methyl eugenyl ether. See Methyleugenol Methylfluoranthenes, 5:414 chemical and physical properties, 5:414 exposure assessment, 5:414 guidelines of exposure, 5:415 production and use, 5:414 toxic effects, 5:415 Methyl formal. See Methylal Methyl formate, 4:58 chemical and physical properties, 4:58, 4:59 exposure assessment, 4:58 production and use, 4:58 standards, regulations, or guidelines of exposure, 4:61 studies on environmental impact, 4:61 toxic effects, 4:58 clinical cases, 4:61 epidemiology studies, 4:61 experimental studies, 4:58 genetic and related cellular effects studies, 4:60 human experience, 4:61 inhalation toxicity data for formates, 4:60 pharmacokinetics, metabolism, and mechanisms, 4:60 3-Methyl- formate. See Isoamyl formate 2-Methylfumarate. See Mesaconic acid Methylfumaric acid. See Mesaconic acid 3-Methylglutaraldehyde, 3:704 toxic effects, 3:704 Methyl glycol. See Ethylene glycol monomethyl ether Methyl glycol phthalate. See Dimethoxyethyl phthalate Methylglyoxylic acid methyl ester. See Methyl pyruvate Methyl heptanone. See 5-Methyl-3-heptanone 5-Methyl-3-heptanone, 3:874

chemical and physical properties, 3:874 environmental impact, studies, 3:875 exposure assessment, 3:874-875 guidelines of exposure, 3:875 production and use, 3:874 toxic effects experimental studies, 3:875 human experience, 3:875 1-Methylheptylamine. See 2-Octylamine Methyl hexalin. See Methylcyclohexanol Methyl hexanone. See Methyl isoamyl ketone 2-Methyl-5-hexanone. See Methyl isoamyl ketone 5-Methyl-2-hexanone. See Methyl isoamyl ketone 1-Methylhexylamine. See 2-Aminoheptane Methyl hexyl carbinol. See 2-Octanol Methyl n-hexyl ketone. See 2-Octanone 2 Methyl-homopolymer. See Polyisoprene Methylhydrazine, 2:874 chemical and physical properties, 2:875 exposure assessment, 2:875 production and use, 2:875 toxic effects, 2:875-878 Methyl hydride. See Methane Methyl hydroxide. See Methanol 3-Methyl-1-hydroxy-benzene. See m-Cresol Methyl 5-hydroxy-2-benzimidazolecarbamate (5HBC), 2:764 Methyl 2-hydroxybenzoate. See Salicylates Methyl 4-hydroxybenzoate. See Methyl Paraben Methyl o-hydroxybenzoate. See Salicylates Methyl p-hydroxybenzoate. See Methyl Paraben 4-Methyl-4-hydroxy-2-pentanone. See 4-Hydroxy-4-methyl-2pentanone 2,2'-Methyliminodiethanol. See Monomethyldiethanolamine N-Methyliminodiethanol. See Monomethyldiethanolamine Methyl iodide chemical and physical properties, 3:18 guidelines of exposure, 3:20 production and use, 3:18 toxic effects, 3:18-20 experimental studies, 3:18-20 human experience, 3:20 Methyl iodine. See Methyl iodide Methylisoamylacetate. See sec-Hexyl acetate Methyl isoamyl ketone, 3:856 chemical and physical properties, 3:856 environmental impact, studies, 3:858 exposure assessment, 3:857 guidelines of exposure, 3:858 production and use, 3:856 toxic effects experimental studies, 3:857-858 human experience, 3:858 Methyl isobutanoate. See Methyl isobutyrate Methyl isobutenyl ketone, 4-methyl-3-penten-2-one, 2-methyl-2penten-4-one. See Mesityl oxide Methyl isobutyl carbinol, 3:965 chemical and physical properties, 3:965 exposure assessment, 3:966 guidelines of exposure, 3:967

Methyl isobutyl carbinol (Continued) production and use, 3:966 toxic effects experimental studies, 3:966-967 human experience, 3:967 Methyl isobutyl carbinol acetate. See sec-Hexyl acetate Methyl isobutyl ketone, 3:819 chemical and physical properties, 3:819 environmental impact, studies, 3:831 exposure assessment, 3:819-822 guidelines of exposure, 3:831 production and use, 3:819 toxic effects epidemiology studies, 3:830-831 experimental studies, 3:822-828 human experience, 3:828-830 Methyl isobutyl ketone peroxide, 4:560 chemical and physical properties, 4:560 exposure assessment, 4:562 production and use, 4:560 toxic effects, 4:562 Methyl isobutyrate, 4:103 chemical and physical properties, 4:103 odor and warning properties, 4:104 toxic effects, 4:104 acute toxicity, 4:104 carcinogenesis, 4:104 Methyl isocyanate chemical and physical properties, 2:950t-951t, 2:982 exposure assessment, 2:982 exposure standards, 2:983 genetic and cellular effects, 2:983 odor and warning properties, 2:982 production and use, 2:982 reproductive and developmental effect, 2:982-983 toxic effects acute toxicity, 2:982 chronic and subchronic toxicity, 2:982 experimental studies, 2:982-983 human experience, 2:983 Methylisoeugenol, 3:630 chemical and physical properties, 3:630 toxic effects, 3:630 Methyl isopentyl ketone. See Methyl isoamyl ketone Methyl-4-isopropenylcyclohexene. See Limonene Methyl-4-isopropenyl-1-cyclohexene. See Limonene Methyl isopropenyl ketone, 3:785 chemical and physical properties, 3:785 environmental impact, studies, 3:786 exposure assessment, 3:785-786 guidelines of exposure, 3:786 production and use, 3:785 toxic effects, 3:786 1-Methyl-4-isopropylbenzene. See o/m/p-Isopropyltoluene 4-Methyl isopropylbenzene. See o/m/p-Isopropyltoluene Methyl isopropyl ketone, 3:782 chemical and physical properties, 3:782 environmental impact, studies, 3:784 exposure assessment, 3:782-783

guidelines of exposure, 3:784 production and use, 3:782 toxic effects, 3:783-784 Methyl ketone. See Acetone Methyl lactate, 4:127 acute oral and inhalation toxicity, 4:129 chemical and physical properties, 4:127 production and use, 4:127, 4:129 toxic effects, 4:129 acute toxicity, 4:129 experimental studies, 4:129 human experience, 4:129 2-Methyllactonitrile chemical and physical properties, 2:950t-951t, 2:971 experimental studies, 2:971 human experience, 2:971 production and use, 2:971 toxic effects, 2:971 3-Methyl-l-butanol. See 3-Methyl-1-butanol 1-Methyl-l-phenylethylene. See Vinyltoluene Methyl maleate. See Dimethyl maleate 2-Methylmaleate. See Citraconic acid Methylmaleic acid. See Citraconic acid Methyl malonate. See Dimethyl malonate Methyl mercaptan, 4:1042 animal and human studies, 4:1042-1043 chemical and physical properties, 4:1042 exposure assessment, regulations, and standards, 4:1042 production and use, 4:1042 Methylmercuric chloride, 1:222 chemical and physical properties, 1:223 environmental impact, 1:226 exposure assessment, 1:224 metabolism in body, 1:223-224 production, use, and source of exposure, 1:223 toxic effects, 1:224 experimental studies, 1:224 human experience, 1:224-225 standards, regulations, or guidelines of exposure, 1:225-226 Methylmercury poisoning, 1:35, 1:56, 1:57 Methyl methacrylate, 4:120 chemical and physical properties, 4:120 exposure assessment, 4:120 workplace methods, 4:120 production and use, 4:120 standards, regulations, or guidelines of exposure, 4:122 studies on environmental impact, 4:122, 4:123 toxic effects, 4:120 acute toxicity, 4:120, 4:121 carcinogenesis, 4:121 chronic and subchronic toxicity, 4:121 clinical cases, 4:122 experimental studies, 4:120 genetic and related cellular effects studies, 4:122 human experience, 4:122 reproductive and development, 4:121 Methyl methacrylate homopolymer. See Polymethyl methacrylate Methylmethacrylate monomer. See Methyl methacrylate Methyl methacrylate polymer. See Polymethyl methacrylate

CUMULATIVE SUBJECT INDEX, VOLUMES 1-6 639

3-Methylnitrobenzene. See 3-Nitrotoluene

Methyl methacrylate resin. See Polymethyl methacrylate N-Methylmethanamine. See Dimethylamine Methylmethane. See Ethane Methyl methanoate. See Methyl formate Methyl p-(methoxycarbonyl)benzoate. See Dimethyl terephthalate Methyl methylacrylate. See Methyl methacrylate Methyl 2-methylacrylate. See Methyl methacrylate Methyl N-methyl o-aminobenzoate, 4:185 chemical and physical properties, 4:186 exposure assessment, 4:186 odor and warning properties, 4:186 production and use, 4:186 toxic effects, 4:186 acute toxicity, 4:186 chronic and subchronic toxicity, 4:186 experimental studies, 4:186 genetic and related cellular effects studies, 4:186 pharmacokinetics, metabolism, and mechanisms, 4:186 reproductive and developmental, 4:186 1-Methyl-4-(1-methylethenyl)cyclohexene. See Limonene Methyl-4-(1-methylethenyl)cyclohexene. See Limonene 1-Methyl-4-(1-methylethenyl)-/1-methyl-4-isopropenylcyclohex-1-ene. See Limonene 1-Methyl-4-(methylethyl)benzene. See o/m/p-Isopropyltoluene Methyl-4-(1-methylethyl)benzene. See o/m/p-Isopropyltoluene 2-Methyl-4-((2-methylphenyl) azo)benzenamine. See o-Aminoazotoluene Methyl methylpropanoate. See Methyl isobutyrate Methyl 2-methylpropanoate. See Methyl isobutyrate Methyl 2-methyl-2-propenoate. See Methyl methacrylate Methyl 2-methylpropionate. See Methyl isobutyrate 2-Methyl m-phenylenediamine. See 2,6-Toluenediamine Methylnaphthalene, 5:377 chemical and physical properties, 5:377 guidelines of exposure, 5:378 production and use, 5:377 toxic effects, 5:377 experimental studies, 5:377-378 human experience, 5:378 Methyl nitrate, 2:377 chemical and physical properties, 2:377 exposure assessment methods, 2:377 production and use, 2:377 toxic effects, 2:377 Methyl nitrite, 2:392 chemical and physical properties, 2:393 exposure assessment, 2:393 guidelines of exposure, 2:393 production and use, 2:393 toxic effects, 2:393 2-Methyl-5-nitroaniline. See 5-Nitro-o-toluidine 2-Methyl-5-nitrobenzenamine. See 5-Nitro-o-toluidine Methylnitrobenzene. See 2-Nitrotoluene 1-Methyl-2-nitrobenzene. See 2-Nitrotoluene 1-Methyl-3-nitrobenzene. See 3-Nitrotoluene 1-Methyl-4-nitrobenzene. See 4-Nitrotoluene 2-Methylnitrobenzene. See 2-Nitrotoluene 2-Methyl-1-nitrobenzene. See 2-Nitrotoluene

4-Methylnitrobenzene. See 4-Nitrotoluene α -Methylnitrobenzene. See 2-Nitrotoluene 1-Methyl-3-nitro-1-nitrosoguanidine. See N-Methyl-N-nitroso-N'nitroguanidine 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone, 2:422 chemical and physical properties, 2:422 exposure analysis, 2:422 production, use, and exposure opportunity, 2:422 toxic effects, 2:422-423 Methylnitrosoethylamine (MNEA), 2:402 N-Methyl-N-nitroso-N'-nitroguanidine, 2:426 chemical and physical properties, 2:426 exposure analysis, 2:426 production, use, and exposure opportunity, 2:427 toxic effects, **2:**426–427 Methylnitrosourea. See N-Nitroso-N-methylurea Methylnitrosourea (MNU) in nitritecured meats, 2:402 2-Methyl-N-(2-methylpropyl)-1-propanamine. See Diisobutylamine 2-Methyl-N,N-bis(2-methylpropyl)-1-propanamine. See Triisobutylamine N-Methyl-N,2,4,6-tetranitroaniline. See Tetryl Methylol. See Methanol Methylopropane. See 1-Butanol Methyl orthosilicate. See Ethyl silicate Methyl oxirane. See Propylene oxide Methyl 3-oxobutanoate. See Methyl acetoacetate Methyl 3-oxobutyrate. See Methyl acetoacetate 4-Methyl-2-oxo-1,3-dioxolane. See Propylene carbonate Methyl 2-oxopropanoate. See Methyl pyruvate Methyl p-oxybenzoate. See Methyl Paraben Methyl PABA. See Methyl p-aminobenzoate Methyl paraben, 4:167 chemical and physical properties, 4:168 odor and warning properties, 4:168 production and use, 4:168 standards, regulations, or guidelines of exposure, 4:169 toxic effects, 4:168 acute toxicity, 4:168 carcinogenesis, 4:168 chronic and subchronic toxicity, 4:168 clinical cases, 4:168 epidemiology studies, 4:169 experimental studies, 4:168 genetic and related cellular effects studies, 4:168 human experience, 4:168 neurological, pulmonary, skin sensitization, 4:168 pharmacokinetics, metabolism, and mechanisms, 4:168 Methyl parathion, 4:1159 chemical and physical properties, 4:1160 exposure assessment, 4:1160-1161 guidelines of exposure, 4:1166 production and use, 4:1160 toxic effects experimental studies, 4:1161-1165 human experience, 4:1165-1166

Methylpentamethylene. See Methylcyclopentane 2-Methylpentane, 2:29 chemical and physical properties, 2:29 exposure assessment, 2:29 exposure guidelines, 2:30 production and use, 2:29 toxic effects, 2:30 3-Methylpentane, 2:30 chemical and physical properties, 2:31 exposure assessment, 2:31 guidelines of exposure, 2:32 toxic effects, 2:31 2-Methyl-2,4-pentanediol, 4:626 chemical and physical properties, 4:626 exposure assessment, 4:626 guidelines of exposure, 4:627 production and use, 4:626 toxic effects experimental studies, 4:626-627 human experience, 4:627 2-Methyl-2,4-pentanediol acetic acid diester. See 2-Methyl-2,4pentanediol diacetate 2-Methyl-2,4-pentanediol diacetate, 4:849 chemical and physical properties, 4:849 toxic effects, 4:849 4-Methylpentane-2-one. See Methyl isobutyl ketone 2-Methylpentanoic acid. See 2-Methylvaleric acid 4-Methylpentanoic acid. See Isocaproic acid Methylpentanol. See Methyl isobutyl carbinol 2-Methyl-1-pentanol, 3:967-968 2-Methylpentan-1-ol. See 2-Methyl-1-pentanol 2-Methyl-4-pentanol. See Methyl isobutyl carbinol 3-Methyl-1-pentanol, 3:968 3-Methylpentan-1-ol. See 3-Methyl-1-pentanol 4-Methyl-1-pentanol, 3:968 chemical and physical properties, 3:968 guidelines of exposure, 3:968 production and use, 3:968 toxic effects, 3:968 4-Methylpentanol-2. See Methyl isobutyl carbinol 4-Methyl-2-pentanol. See Methyl isobutyl carbinol 4-Methylpentan-2-ol. See Methyl isobutyl carbinol 4-Methyl-2-pentanol acetate. See sec-Hexyl acetate 2-Methyl-2-pentanol-4-one and 2-hydroxy-2-methyl-4pentanone,4-hydroxy-2-keto-4-methylpentane. See 4-Hydroxy-4-methyl-2-pentanone Methyl-1-pentanols, 3:967 4-Methyl-2-pentanone. See Methyl isobutyl ketone 4-Methyl-2-pentanone peroxide. See Methyl isobutyl ketone peroxide 2-Methyl-2-pentenal. See Methyl-β-ethylacrolein trans-2-Methyl-2-pentenal. See Methyl-B-ethylacrolein 2-Methyl-2-penten-4-one. See Mesityl oxide 4-Methyl-3-penten-2-one. See Mesityl oxide 2-Methylpentylacetate. See sec-Hexyl acetate 2-Methylpentyl acetate. See Hexyl acetates 4-Methyl-2-pentyl acetate. See sec-Hexyl acetate Methyl t-pentyl ether. See t-Amyl methyl ether Methyl pentyl ketone. See Methyl n-amyl ketone

2-(1-Methylpentyl)oxyethanol. See Ethylene glycol mono-2methylpentyl ether 2-[2-(2-Methylpentyl)oxy]ethoxy ethanol. See Diethylene glycol monomethylpentyl ether 2-Methylphenol. See o-Cresol 3-Methylphenol. See m-Cresol m-Methylphenol. See m-Cresol o-Methylphenol. See o-Cresol (2-Methylphenoxy) methyl oxirane. See Cresyl glycidyl ethers Methyl 3-phenylacrylate. See Methyl cinnamate Methylphenylamine. See N-Methylaniline N-Methylphenylamine. See N-Methylaniline Methylphenylcarbinol. See 1-Phenylethanol 2-Methyl-1,3-phenylenediamine. See 2,6-Toluenediamine 2-Methyl-m-phenylenediamine. See 2,6-Toluenediamine 4-Methylphenylene-1,3-diamine. See 2,4-Toluenediamine 4-Methyl-m-phenylenediamine. See 2,4-Toluenediamine 4-Methyl-o-phenylenediamine. See 3,4-Toluenediamine α -Methyl phenylethyl alcohol. See 2-Phenyl-1-propanol 1-Methyl-1-phenylethylene. See α -Methyl styrene Methyl phenyl methanol. See 1-Phenylethanol m-Methylphenylol. See m-Cresol o-Methylphenylol. See o-Cresol 2-Methyl-1-phenylpropane. See Isobutylbenzene 2-Methyl-2-phenylpropane. See tert-Butylbenzene Methyl 3-phenylpropenoate. See Methyl cinnamate Methyl 3-phenyl-2-propenoate. See Methyl cinnamate 1-Methyl-4- phenyl-1,2,3,6-tetrahydropyridine (MPTP), 1:49 Methyl phosphate. See Trimethyl phosphate Methyl phthalyl ether glycolate. See Methyl phthalyl ethyl glycolate Methyl phthalyl ethyl glycolate, 4:311 chemical and physical properties, 4:311 toxic effects, 4:312 acute toxicity, 4:312 chronic and subchronic toxicity, 4:312 Methyl pirimiphos. See Pirimiphos methyl Methyl propanal. See Isobutyraldehyde 2-Methylpropanal. See Isobutyraldehyde 2-Methyl-1-propanal. See Isobutyraldehyde 2-Methylpropanamine. See Isobutylamine 2-Methyl-1-propanamine. See Isobutylamine 2-Methylpropane, 2:13 chemical and physical properties, 2:14 epidemiology studies, 2:15 exposure assessment, 2:14 occupational exposure limits, 2:17 production and use, 2:14 subchronic toxicity studies in animals, 2:16 toxic effects, 2:14-15 2-Methyl-1-propane. See Butyl rubber Methyl propanoate. See Methyl propionate 2-Methylpropanoate. See Isobutyric acid 2-Methylpropanoic acid. See Isobutyric acid 2-Methylpropanoic acid monoester with 2,2,4-trimethylpentane-1,3-diol. See 2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate Methyl-1-propanol. See 2-Butanol 1-Methyl-1-propanol. See 2-Butanol

2-Methyl propanol. See Isobutanol

Methyl-2-propanol. See tert-Butyl alcohol 2-Methyl-1-propanol. See Isobutanol 2-Methylpropan-1-ol. See Isobutanol 2-Methyl-2-propanol. See tert-Butyl alcohol 2-Methyl-propan-2-ol. See tert-Butyl alcohol 2-Methyl-1-propanol, acetate. See Isobutyl acetate 2-Methylpropenal. See Methacrylaldehyde 2-Methyl-2-propenal. See Methacrylaldehyde Methyl propenate. See Methyl acrylate Methylpropene. See 2-Methylpropene 2-Methylpropene, 2:58 chemical and physical properties, 2:58-59 exposure assessment, 2:59 guidelines of exposure, 2:60 production and use, 2:59 toxic effects, 2:59-60 2-Methyl-1-propene. See 2-Methylpropene 2-Methyl-2-propene-1,1-diol diacetate, 4:848 chemical and physical properties, 4:848 toxic effects, 4:848 Methyl propenoate. See Methyl acrylate Methyl 2-propenoate. See Methyl acrylate Methyl prop-2-enoate. See Methyl acrylate 2-Methyl-2-propenoic acid. See Isobutyl methacrylate; Methacrylic acid 2-Methyl-2-propenoic acid butyl ester, See *n*-Butyl Methacrylate 2-Methyl-2-propenoic acid ethyl ester. See Ethyl methacrylate 2-Methyl-2-propenoic acid isobutyl ester. See Isobutyl methacrylate 2-Methyl-2-propenoic acid methyl ester. See Methyl methacrylate 2-Methyl-2-propenoic acid methyl ester homopolymer. See Polymethyl methacrylate 2-Methylpropionaldehyde. See Isobutyraldehyde α -Methyl-propionaldehyde. See Isobutyraldehyde Methyl propionate, 4:98 chemical and physical properties, 4:98 odor and warning properties, 4:98 production and use, 4:98, 4:100 studies on environmental impact, 4:100 toxic effects, 4:100 acute toxicity, 4:100 experimental studies, 4:100 human experience, 4:100 2-Methylpropionic acid. See Isobutyric acid α -Methylpropionic acid. See Isobutyric acid 2-(2-Methylpropoxy)ethanol. See Ethylene glycol monoisobutyl ether 2-[2-(2-Methylpropoxy)ethoxy]ethanol. See Diethylene glycol monoisobutyl ether Methyl proprionate. See Methyl propionate 1-Methylpropyl acetate. See sec-Butyl acetate 2-Methylpropyl acetate. See Isobutyl acetate 2-Methyl-1-propyl acetate. See Isobutyl acetate Methylpropylacetic acid. See 2-Methylvaleric acid 1-Methylpropyl alcohol. See 2-Butanol 2-Methylpropyl alcohol. See Isobutanol 1-Methylpropylamine. See 2-Butylamine 2-Methylpropylamine. See Isobutylamine Methyl propylate. See Methyl propionate

(2-Methylpropyl)benzene. See Isobutylbenzene Methyl propyl carbinol. See 2-Pentanol 2-Methylpropylene. See 2-Methylpropene 2-Methylpropyl ester. See Isobutyl acetate; Isobutyl formate; Isobutyl methacrylate 1-Methylpropyl ethanoate. See sec-Butyl acetate 2-Methylpropylethanoate. See Isobutyl acetate Methyl propyl ether, 3:601 chemical and physical properties, 3:601 toxic effects, 3:601 2-Methylpropyl formate. See Isobutyl formate 2-Methyl-1-propyl formate. See Isobutyl formate Methyl propyl ketone. See Methyl n-propyl ketone Methyl *n*-propyl ketone, **3:**779 chemical and physical properties, 3:780 environmental impact, studies, 3:782 exposure assessment, 3:780 guidelines of exposure, 3:782 production and use, 3:780 toxic effects, 3:780-782 2-Methylpropyl methacrylate. See Isobutyl methacrylate 2-Methylpropyl 2-methylpropenoate. See Isobutyl methacrylate Methylprotocatechuic aldehyde. See Vanillin Methylpyridines, 2:796 carcinogenesis, 2:798 chemical and physical properties, 2:796 environmental impact, studies on, 2:798-800 exposure assessment, 2:797 genetic and related cellular effects studies, 2:798 human experience, 2:798 odor and warning properties, 2:796 production and use, 2:796, 2:797 standards, regulations, or guidelines of exposure, 2:798 toxic effects, 2:797 acute toxicity, 2:797 carcinogenesis, 2:798 chronic and subchronic toxicity, 2:797, 2:798 experimental studies, 2:797 genetic and related cellular effects studies, 2:798 pharmacokinetics, metabolism, and mechanisms, 2:798 reproductive and developmental, 2:798 1-Methyl-2-(3-pyridyl)pyrrolidine. See Nicotine N-Methyl-2-pyrrolidinone carcinogenesis, 2:730 chemical and physical properties, 2:727 environmental impact studies, 2:731 exposure assessment, 2:727 exposure standards, 2:731 genetic and cellular effects, 2:730 odor and warning properties, 2:727 pharmacokinetics, metabolism, and mechanisms, 2:728-729 production and use, 2:727 reproductive and developmental effects, 2:729-730 toxic effects acute toxicity, 2:727 experimental studies, 2:727-730 human experience, 2:730-731 subchronic and chronic toxicity, 2:728

Methyl pyruvate, **4:**132 chemical and physical properties, 4:133 toxic effects, 4:133 acute toxicity, 4:133 Methyl salicylate, 4:162 chemical and physical properties, 4:162 exposure assessment, 4:162 odor and warning properties, 4:162 production and use, 4:162 studies on environmental impact, 4:164 toxic effects, 4:163 acute toxicity, 4:163 carcinogenesis, 4:163 chronic and subchronic toxicity, 4:163 clinical cases, 4:164 experimental studies, 4:163 genetic and related cellular effects studies, 4:163, **4:**164 human experience, 4:164 neurological, pulmonary, skin sensitization, 4:164 pharmacokinetics, metabolism and mechanisms, 4:163 reproductive and developmental, 4:163 Methyl silicate, 4:412 chemical and physical properties, 4:413 production and use, 4:413 standards, regulations, or guidelines of exposure, 4:414 toxic effects, 4:413 acute toxicity, 4:413 chronic and subchronic toxicity, 4:413 human experience, 4:414 Methylsilicochloroform. See Methyltrichloro silane Methyl styrene. See Vinyltoluene α -Methyl styrene, **2:**231 chemical and physical properties, 2:232 exposure assessment, 2:232 guidelines of exposure, 2:233 production and use, 2:232 toxic effects, 2:232-233 1-Methyl-2-tert-butoxyethanol. See Propylene glycol monotertiary-butyl ether N-Methyl-N,2,4,6-tetranitrobenzenamine. See Tetryl 2-Methyl-p-toluidine. See 2,4-Xylidine 4-Methyl-o-toluidine. See 2,4-Xylidine 5-Methyl-o-toluidine. See 2,5-Xylidine 6-Methyl-m-toluidine. See 2,5-Xylidine Methyl tribromide. See Bromoform Methyl trichloride. See Chloroform Methyltrichloromethane. See Methyl chloroform Methyltrichloro silane, 4:404 chemical and physical properties, 4:405 odor and warning properties, 4:405 production and use, 4:405 toxic effects, 4:405 acute toxicity, 4:405 experimental studies, 4:405 genetic and related cellular effects studies, 4:405 human experience, 4:405 pharmacokinetics, metabolism, and mechanisms, 4:405 Methyltriethoxy silanate. See Methyltriethoxy silane

Methyltriethoxy silane, 4:410 chemical and physical properties, 4:410 odor and warning properties, 4:411 toxic effects, 4:411 acute toxicity, 4:411 experimental studies, 4:411 human experience, 4:411 Methyltriglycol. See Triethylene glycol monomethyl ether Methyltrinitrobenzene. See 2,4,6-Trinitrotoluene 1-Methyl-2,4,6-trinitrobenzene. See 2,4,6-Trinitrotoluene 2-Methyl-1,3,5-trinitrobenzene. See 2,4,6-Trinitrotoluene α -Methylvaleric. See 2-Methylvaleric acid 2-Methylvaleric acid, 3:489 chemical and physical properties, 3:489 exposure assessment, 3:490 guidelines of exposure, 3:490 production and use, 3:490 toxic effects experimental studies, 3:490 human experience, 3:490 4-Methylvaleric acid. See Isocaproic acid Methylvinylnitrosamine. See Nitrosomethylvinylamine Methyl Yellow. See 4-Dimethylaminoazobenzene 2-Methypentane-2,4-diol. See 2-Methyl-2,4-pentanediol Metolose mc 8000. See Methyl cellulose Metolose 60sh. See Methyl cellulose Metolose 60sh400. See Methyl cellulose Metolose sm 15. See Methyl cellulose Metolose sm 100. See Methyl cellulose Metolose sm 4000. See Methyl cellulose; Methylcellulose Metrogen Red Former KB Soln. See 5-Chloro-o-toluidine Metylester kyseliny salicylove [Czech]. See Salicylates Meyer wave-related sinus arrhythmia, 1:410 MiAK. See Methyl isoamyl ketone MIBC. See Methyl isobutyl carbinol MiBK. See Methyl isobutyl ketone Mica, 5:199 chemical and physical properties, 5:199 guidelines of exposure, 5:199 production and use, 5:199 Microbial bioaerosols, in occupational environment, 5:499 airborne microbial contaminants, sampling for, 5:519-521 assessment of risk, 5:521 phase one, 5:522 phase three, 5:523 phase two, 5:522-523 bacterial and fungal toxins, 5:519 bacterial infections Bacillus anthracis, 5:510-511 Brucella, 5:511 Klebsiella pneumoniae, 5:511 Legionella pneumophila, 5:511–512 Mycobacterium tuberculosis, 5:512 Mycoplasma pneumoniae, 5:512 Neisseria meningitidis, 5:512-513 Streptococcus Infections, 5:513 control and prevention airborne infectious disease, 5:523-524 building-related symptoms and diseases, 5:524

disease, 5:509 environmental/physiological factors, 5:509-510 fungal infection, 5:513 Coccidioides immitis, 5:515-516 Histoplasma capsulatum, 5:514-515 health effects dampness/mold in buildings, 5:518-519 hypersensitivity diseases, 5:518 infection, 5:508-509 progressive inflammatory neuropathy, 5:519 rickettsial/chlamydial infections, 5:517-518 sources/aerodynamic behavior, 5:504 aerodynamic behavior, 5:507 exposures, 5:504-507 transmission, 5:507-508 types and properties, 5:500 bacteria, 5:500-502 fungi, 5:502-504 microbial volatile organic compounds (MVOCs), 5:504 viruses, 5:502 viral infections common cold, 5:517 influenza virus, 5:516-517 workplace, health effects of bacterial infections, 5:510 Microbial degradation, of stored silage, 1:970 Microcrystalline cellulose. See Cellulosics Microcrystalline silica. See Silicon dioxide Microcytic anemia, 1:272 Microelectrode array (MEA) neurochips, 1:436 β_2 -Microglobulin (β_2 M), 1:408 Microlysin. See Trichloronitromethane Micronucleated polychromatic erythrocytes (mPCE), 1:727 Micronucleus (MN) assay, 1:580 Micronucleus test, 1:527 Microsomal mutagenesis assay, 2:726 Microthene f. See Polyethylene Microtox test, 1:446 MIG. See Metal inert gas welding (MIG) Mil-b-4394-b. See Methylene chlorobromide Mild spleen hypertrophy, 1:529 Milian's syndrome, 1:502 Milk-alkali syndrome (MAS), 1:151 Minamata disease, 1:35, 1:224 Mine Act procedures, 5:11 Mineral colza. See Kerosene Mineral grease (petrolatum). See Petrolatum Mineral jelly. See Petrolatum Mineral naphtha. See Benzene Mineral oil (saturated paraffin oil). See White oils Mineral oil, aromatic. See White oils Mineral oil hydrocarbon solvent (petroleum). See White oils Mineral oil mist. See White oils Mineral oil, paraffinic. See White oils Mineral pitch. See Asphalt Mineral seal. See Kerosene

Mineral Seal Oil. See White oils Mineral spirits. See Petroleum spirits Mineral wool, 5:274 chemical and physical properties, 5:275 environmental impact, studies, 5:285 exposure assessment, 5:275-278 production and use, 5:275 toxic effects, 5:278-284 experimental studies, 5:278-281 human experience, 5:281-284 Minimal erythrocyte microcytosis, 1:528 Mining coal macules, 5:305f long-wall, 5:304f room and pillar, 5:304f MIPA. See Isopropylamine; Monoisopropylethanolamine; Monoisoprpanolamine MIPK. See Methyl isopropyl ketone Mismatch repair enzymes, 6:455 MITI screening test, 2:738 Mitochondrial cytochrome oxidase, 2:947 Mitsui Blue B Base. See 3,3'-Dimethoxybenzidine Mitsui Red 3GL Base. See 4-Chloro-2-nitroaniline Mitsui Red 3GL Salt. See 4-Chloro-2-nitroaniline Mitsui Red TR Base. See 4-Chloro-o-toluidine Mitsui Scarlet G Base. See 5-Nitro-o-toluidine Mixed cellulose ester filter (MCEF), 1:645 MLD. See Median lethal dose (MLD) MMA. See Methylamine; Methyl methacrylate; Monomethylarsonic acid (MMA) MME. See Methyl methacrylate MMH. See Methylhydrazine MMT. See Methylcyclopentadienyl manganese tricarbonyl (MMT) toxic effects, 1:611 Mmts-btr. See Methyl cellulose MnAK. See Methyl n-amyl ketone MN assay. See Micronucleus (MN) assay MNBA. See n-Butylamine MnBK. See Methyl n-butyl ketone MNCB. See 1-Chloro-3-nitrobenzene; m-Chloronitrobenzene m-Nitraniline. See 3-Nitroaniline MNNG. See N-Methyl-N-nitroso-N'-nitroguanidine MNPA. See n-Propylamine MNT cytokinesis-block micronucleus test, 1:729 MNU. See N-Nitroso-N-methylurea Mobile (cell) phones and cancer, 6:119-121 damage to sperm, 6:122 evaluations, 6:157-158 human studies, 6:158-159 international exposure standards, 6:124f MOCA. *See* 4,4'-Methylenebis(2-chloroaniline) Modern understanding of mode of action (MOA), 5:89 Molasses alcohol. See Ethanol Molecular epidemiological studies, 6:457 Molecular oxygen transformations process, 1:659 Molol. See White oils Molten sodium, as coolant, 1:938 Molybdenite, 1:577

Molybdenum acute toxicity, 1:579, 1:583 carcinogenesis, 1:581-582 chemical and physical properties, 1:576-577, 1:577t odor and warning properties, 1:577 chronic and subchronic toxicity, 1:579-581, 1:583 clinical cases, 1:583 exposure assessment, 1:578-579 biomonitoring/biomarkers, 1:578-579 community methods, 1:578 workplace methods, 1:578 genetic and related cellular effects studies, 1:582, 1:584-585 neurological, pulmonary, and skin sensitization, 1:582, 1:585 pharmacokinetics, metabolism, and mechanisms, 1:583-585 absorption, 1:584 distribution, 1:581 excretion, 1:581 production and use, 1:577-578 reproductive and developmental studies, 1:581, 1:584 standards, regulations, and guidelines of exposure, 1:585 studies on cancer in humans, 1:584 toxic effects, 1:579-585 epidemiology studies, 1:585 experimental studies, 1:579-582 human experience, 1:582-585 Mond method, 1:653 Monel alloy, 1:655 Monoacetin. See Glyceryl monoacetate Monoallylamine. See Allylamine Monoamine oxidase (MAO) activity, 1:680 Monobromoethane. See Ethyl bromide Monobromoethylene. See Vinyl bromide Monobromomethane. See Methyl bromide Mono-sec-butanolamine, 2:498 guidelines of exposure, 2:498 production and use, 2:498 toxic effects, 2:498 Monobutylamine. See n-Butylamine Mono-n-butylamine. See n-Butylamine Monobutylethanolamine, 2:503 guidelines of exposure, 2:504 production and use, 2:503 toxic effects, 2:503-504 Monobutyltin (MBT), 1:364 Monobutyl tin chloride (MBTC), 1:369 Monochloroacetaldehyde. See Chloroacetaldehyde Monochlorobenzene. See Halogenated benzenes Monochlorodifluoromethane. See Chlorodifluoromethane Monochloroethane. See Ethyl chloride 2-Monochloroethanol. See 2-Chloroethanol Monochloroethylene. See Vinyl chloride Monochloromethane. See Methyl chloride Monochloromonobromomethane. See Methylene chlorobromide Monochloropentafluoroethane 115. See 1-Chloro-1,1,2,2,2-Pentafluoroethane Monochloropropylene. See Allyl chloride Monoctylamine. See 1-Octylamine Monocyclic terpene hydrocarbons. See Limonene

Mono-, di-, and tripropylene glycol allyl ethers, 4:833 chemical and physical properties, 4:833 toxic effects, 4:833-834 Mono-, di-, and tripropylene glycol isobutyl ethers, 4:834 chemical and physical properties, 4:834 toxic effects experimental studies, 4:834-835 Monodisperse aerosols pulmonary deposition, 5:218f tracheobronchial deposition, 5:217f Monoethanolamine, 2:491 chemical and physical properties, 2:491 exposure assessment, 2:492 guidelines of exposure, 2:493 production and use, 2:491-492 toxic effects, 2:492-493 Monoethylamine. See Ethylamine Monoethyldiethanolamine, 2:505 chemical and physical properties, 2:505 guidelines of exposure, 2:505 production and use, 2:505 toxic effects, 2:505 Monoethylene glycol. See Ethylene glycol Monoethylene glycol dimethyl ether. See Ethylene glycol dimethyl ether Monoethylethanolamine, 2:500. See also Monomethylethanolamine chemical and physical properties, 2:501 guidelines of exposure, 2:501 production and use, 2:501 toxic effects, 2:501 Monofluoroethene. See Vinyl fluoride Monofluoroethylene. See Vinyl fluoride Monoglyme. See Ethylene glycol dimethyl ether Monohydric alcohols, 4:1 chemical and physical properties, 4:1, 4:2 disposition, 4:1 health effects, 4:1, 4:3 metabolism, 4:1 production, 4:1 use, 4:1 Monohydric alcohols, C1 to C6, 3:915 alcohols, 3:917 chemical and physical properties, 3:915, 3:916t health effects in animals, 3:917 health effects in humans, 3:917 metabolism and disposition, 3:915 production and use, 3:915 Monohydroxybenzene. See Phenol Monohydroxymethane. See Methanol Monoiodoethane. See Ethyl iodide Monoiodomethane. See Methyl iodide Monoisobutylamine. See Isobutylamine Monoisopropanolamine. See Monoisoprpanolamine Monoisopropylamine. See Isopropylamine Monoisopropylethanolamine, 2:502 guidelines of exposure, 2:503 production and use, 2:503 toxic effects, 2:503

Monoisoprpanolamine, 2:496 chemical and physical properties, 2:496 exposure assessment, 2:496 guidelines of exposure, 2:496 production and use, 2:496 toxic effects, 2:496 Monomethylamine. See Methylamine Monomethylaminoethanol. See Monomethylethanolamine N-Mono-methylaminoethanol. See Monomethylethanolamine Monomethylaniline. See N-Methylaniline N-Monomethylaniline. See N-Methylaniline Monomethylarsonic acid (MMA), 1:477 Monomethylbenzene. See Toluene Monomethyldiethanolamine, 2:505 chemical and physical properties, 2:505 guidelines of exposure, 2:505 production and use, 2:505 toxic effects, 2:505 Monomethylethanolamine, 2:499. See also 2-(Methylamino) ethanol chemical and physical properties, 2:499 guidelines of exposure, 2:499 production and use, 2:499 toxic effects, 2:499 Monomethyl ether of ethylene glycol. See Ethylene glycol monomethyl ether Monomethylhydrazine. See Methylhydrazine Monomethyltrichlorosilane. See Methyltrichloro silane Mononitroalkanes properties of, 2:352 Mononitrophenol. See 4-Nitropheno Monophenol. See Phenol Monopropylamine. See n-Propylamine Mono-n-propylamine. See n-Propylamine Monopropylene glycol. See Propylene glycol Monopropyl ether acetate of ethylene glycol. See Ethylene glycol mono-*n*-propyl ether acetate Monopropyl ether of ethylene glycol. See Ethylene glycol mono-n-propyl ether Monopropyl nitrate. See Propyl nitrate Monosodium salt. See Formaldehyde sodium sulfoxylate; Sodium formaldehyde bisulfite Morbicid. See Formaldehyde Morningness-eveningness questionnaire (MEQ), 6:366 Morpholine carcinogenesis, 2:741 chemical and physical properties, 2:739 environmental impact studies, 2:742 exposure assessment, 2:739 exposure standards, 2:742 genetic and cellular effects, 2:741, 2:741t odor and warning properties, 2:739 pharmacokinetics, metabolism, and mechanisms, **2:**740–741 production and use, 2:739 reproductive and developmental effects, 2:741 toxic effects acute toxicity, 2:739-740, 2:739t experimental studies, 2:739-741

human experience, 2:741-742 subchronic and chronic toxicity, 2:740 Moseley's x-ray spectra, 1:456 Motor benzol. See Benzene Motor fuel. See Gasoline Motor spirits. See Gasoline Mountain sickness, 1:17 Mowiol. See Polyvinyl alcohol MPD. See 1,3-Phenylenediamine; m-Phenylenediamine MPEGS. See Polyethylene glycol methyl ethers MPK. See Methyl n-propyl ketone MRI. See Magnetic resonance imaging MTBE. See Methyl t-butyl ether MTD. See 2,4-Toluenediamine MTHFR. See Methylenetetrahydrofolate reductase MTT assay, 1:552 Mucochline, 3:693 chemical and physical properties, 3:693 Mucochloric acid. See Mucochline Mucociliary mechanism, 1:661 Multiple-zone melting, 1:356 Muriatic ether. See Ethyl chloride Murine calvaria osteoblastlike cells, 1:544 Muscle contraction and movements, physiology of, 6:231 basic concepts, and relevant terminology, 6:233 biomechanics, 6:233 contraction characteristics, 6:231 types of muscles in human body, 6:232t energy transform and use, 6:232 metabolism during physical exertion, 6:232-233 motor neurons and motor units, 6:232 skeletal framework in human body, 6:233 structure of muscles, 6:231 types of muscles in human body, 6:231 MVC. See Medium volume captor MWF aerosols, 6:2 Mycobacterium cultural detection and isolation, 5:569 historic perspective, 5:559-560 M. Tuberculosis/nontuberculous mycobacteria, sources of, 5:562-564 nontuberculous mycobacteria, human diseases, 5:567-568 NTM identification methods, 5:569-570 organisms, 5:560 growth characteristics, 5:561 morphology/cell structure, 5:561 M. Tuberculosis complex, 5:560 nontuberculous mycobacteria, 5:560-561 prevention, 5:571-572 risk factors/susceptibility governing infection, 5:565-567 taxonomy, 5:560 TB/NTM infections, pathogenesis of, 5:564-565 TB/NTM, laboratory diagnosis, 5:568 specimen, sampling/initial analysis of, 5:568-569 TB, rapid diagnostic tests, 5:570-571 treatment, 5:572-574 drug-resistant tuberculosis, 5:573 NTM infections, 5:574 TB infection, 5:572-573

Mycobacterium (Continued) tuberculous/nontuberculous mycobacteria, epidemiology of, 5:561-562 Mycobacterium tuberculosis scanning electron micrograph of, 5:512f Mycosis fungoides treatment, 2:715 Myleosuppressia, 1:736 Myristic acid, 3:503 chemical and physical properties, 3:503 exposure assessment, 3:503 guidelines of exposure, 3:504 production and use, 3:503 toxic effects experimental studies, 3:503-504 human experience, 3:504 Mysorite. See Asbestos NA. See 2-Naphthylamine NAA. See Neutron activation analysis Naa 173. See Stearic acid NA6E. See Neodecanoic acid, glycidyl ester Naftam 2. See N-Phenyl-2-naphthylamine Na-K ATPase activity, 1:406 Nako Brown R. See 4-Aminophenol Nako TEG. See 3-Aminophenol Nako TMT. See 2,4-Toluenediamine Nako Yellow 3GA. See 2-Aminophenol; o-Aminophenol Naled, 4:1166 chemical and physical properties, 4:1167 exposure assessment, 4:1167 guidelines of exposure, 4:1170 production and use, 4:1167 toxic effects experimental studies, 4:1168-1170 human experience, 4:1170 n-Amyl acetate, 4:83 chemical and physical properties, 4:83 exposure assessment, 4:83 air, 4:83, 4:84 workplace methods, 4:84 odor and warning properties, 4:83 production and use, 4:83 standards, regulations, or guidelines of exposure, 4:84 toxic effects, 4:84 acute toxicity, 4:84 chronic and subchronic toxicity, 4:84 clinical cases, 4:84 experimental studies, 4:84 human experience, 4:84 *n*-Amyl formate, **4:**64 chemical and physical properties, 4:64 odor and warning properties, 4:64 2-N-Amylpyridine. See Alkylpyridines 4-N-Amylpyridine. See Alkylpyridines Nanoaerosol instrumentation, 5:174t Nano fabrication techniques, 1:821 Nano-sized boron particles, 1:906 Naphtha, catalytic reformed. See Petroleum distillates

Naphth[1,2-d]acenaphthylene. See Benz[l]aceanthrylene Naphth[2,1-d] acenaphthylene. See Benz[j]aceanthrylene 1-Naphthalenamine. See 1-Naphthylamine 2-Naphthalenamine. See 2-Naphthylamine Naphthalene, 5:373. See Decalin; Tetralin chemical and physical properties, 5:373 exposure assessment, 5:373-374 guidelines of exposure, 5:376-377 production and use, 5:373 toxic effects experimental studies, 5:374-376 human experience, 5:376 toxicity of, 5:374t 1,5-Naphthalenediamine, 2:670. See also 1,5-Diaminonaphthalene chemical and physical properties, 2:670 exposure assessment, 2:670 guidelines of exposure, 2:670 production and use, 2:670 toxic effects, 2:670 1,2-(1,8-Naphthalenediyl)benzene. See Fluoranthene Naphthalene oil. See Creosote Naphthalidam. See 1-Naphthylamine Naphthalidine. See 1-Naphthylamine Naphthalin. See Naphthalene Naphthaline. See Naphthalene Naphthane. See Decalin Naphthanil Blue B Base. See 3,3'-Dimethoxybenzidine Naphthanil Red 3G Base. See 4-Chloro-2-nitroaniline Naphthanil Scarlet G Base. See 5-Nitro-o-toluidine Naphthanthracene. See Benz[a]anthracene Naphth[2,1-a]anthracene. See Benzo[b]chrysene Naphtha petroleum. See Petroleum ether Naphthene. See Naphthalene Naphthenes, 2:103 Naphthoelan Navy Blue. See 4-Aminodiphenylamine; p-Aminodiphenylamine Naphtho[2,1-a]fluoranthene. See Naphthofluoranthenes Naphthofluoranthenes, 5:415 chemical and physical properties, 5:415 exposure assessment, 5:415 guidelines of exposure, 5:416 production and use, 5:415 toxic effects, 5:415-416 Naphthol AS-KGLL. See P-Toluidine; p-Toluidine Naphtho-(2',3':4,5)-pyrene. See Naphtho[2,3-e]pyrene Naphtho[2,3-*e*]pyrene, **5:**416 chemical and physical properties, 5:416 exposure assessment, 5:416 guidelines of exposure, 5:416-417 production and use, 5:416 toxic effects, 5:416 1-Naphthylamine, 2:591, 2:667 chemical and physical properties, 2:591, 2:667 exposure assessment, 2:591, 2:668 guidelines of exposure, 2:591, 2:668 production and use, 2:591, 2:668 toxic effects, 2:591, 2:668 2-Naphthylamine, 2:591, 2:668 chemical and physical properties, 2:592, 2:668
exposure assessment, 2:592, 2:669 guidelines of exposure, 2:592, 2:669 production and use, 2:592, 2:669 toxic effects, 2:592, 2:669 2,6-Naphthylamine. See 2-Naphthylamine 6-Naphthylamine. See 2-Naphthylamine α -Naphthylamine. See 1-Naphthylamine β-Naphthylamine. See 2-Naphthylamine N-(2-Naphthyl)aniline. See N-Phenyl-2-naphthylamine 2-Naphthylphenylamine. See N-Phenyl-2-naphthylamine β-Naphthylphenylamine. See N-Phenyl-2-naphthylamine N-(2-Naphthyl)-N-phenylamine. See N-Phenyl-2-naphthylamine *N*-β-Naphthyl-*N*-phenylamine. See N-Phenyl-2-naphthylamine Naphtoelan Fast Red 3GL Base. See 4-Chloro-2-nitroaniline Naphtoelan Fast Red 3GL Salt. See 4-Chloro-2-nitroaniline Naphtoelan Fast Scarlet G Base. See 5-Nitro-o-toluidine Naphtoelan Fast Scarlet G Salt. See 5-Nitro-o-toluidine Naphtoelan Orange R Base. See 3-Nitroaniline; m-Nitroaniline Naphtoelan Red GG Base. See 4-Nitroaniline; p-Nitroaniline Napolone. See Methyl cellulose Napthosol Fast Red KB Base. See 5-Chloro-o-toluidine Napththalidam. See 1-Naphthylamine Napthyleneethylene. See Acenaphthene Narcilene. See Acetylene Narcylen. See Acetylene Nasopharyngeal cancer (NPC), 1:147 Natasol Fast Orange GR Salt. See 2-Nitroaniline; o-Nitroaniline National Academy of Sciences, 1:402 National Advisory Committee (NAC) for developing acute exposure guideline levels (AEGLs), 5:105 National ambient air quality standard, 1:995 for lead, 1:413 National Bureau of Standards (NBS), 6:402 National Cancer Institute (NCI), 2:708, 2:965 Bioassay Program, 2:752 National Center for Health Statistics, 1:779 National Council on Radiation Protection and Measurements (NCRP), 1:779 National Fire Protection Association (NFPA), 6:399 National Health and Nutrition Examination Survey (NHANES), 1:408. 1:779. 1:857 data, 1:401, 1:413 National Health and Nutrition Examination Survey (NHANES II), 1:385 National Institute for Environmental Health Sciences, 1:412 National Institute for Occupational Safety and Health (NIOSH), 1:357, 1:361, 1:364, 1:374, 1:431, 1:460, 1:477, 1:491, 1:516, 1:567, 1:655, 1:778, 2:706, 2:751, 2:949, 5:8, 6:451 analytical method, 1:498, 2:739, 2:746, 2:761, 2:954, 2:961, 2:969, 2:986 criteria document, 2:972, 2:973, 2:978 manual of analytical methods (NMAM), 1:357, 1:386 methods, 1:640, 1:645, 1:706, 1:711, 1:730 NIOSH REL. 1:372. 1:643 National Institute of Standards and Technology (NIST), 6:400 six-gas model, 6:406-407 National Institutes of Health (NIH), 5:2 National Lead Laboratory Accreditation Program, 1:386 National Occupational Exposure Survey (NOES), 1:804

National Research Council of the National Academies of Science, 1:479 National Toxicology Program (NTP), 1:403f, 1:855, 1:898, 1:1083, 2:956, 2:964, 5:2, 5:3 Bioassay Reports, 6:451 goals, 5:3 National weather service alert procedures, 6:55-57 Natrosol. See Hydroxyethyl cellulose Natrosol, cellosize. See Hydroxyethyl cellulose Natrosol 250 H. See Hydroxyethyl cellulose Natrosol 250 HHR. See Hydroxyethyl cellulose Natrosol 240JR. See Hydroxyethyl cellulose Natrosol L 250. See Hydroxyethyl cellulose Natrosol LR. See Hydroxyethyl cellulose Natrosol 250 M. See Hydroxyethyl cellulose Natural ethyl butyrate. See Ethyl butyrate Natural gas. See Methane Natural gasoline. See Gasoline Natural isobutyl acetate. See Isobutyl acetate Natural killer (NK) cells, 1:656 function, 1:368 Natural/liquefied gases chemical and physical properties, 5:338 exposure assessment, 5:339 production and use, 5:338 toxic effects, 5:339 Natural nickel, isotopes, 1:653 Natural polymers production of, **4:**1000t–1001t Natural wintergreen oil. See Salicylates Navy Fuel JP-5. See Kerosene Navy fuels JP-5, petroleum derived. See Jet fuels n-Butyl alcohol. See 1-Butanol N-Butyl p-aminobenzoate. See Butyl p-aminobenzoate *n*-Butyl formate, **4**:64 chemical and physical properties, 4:64 odor and warning properties, 4:64 toxic effects, 4:64 NCI-C03714. See 2,3,7,8-Tetrachlorodibenzo-p-dioxin NCI-C04568. See Iodoform Ncic54999. See 4-Vinylcyclohexene NCI-C505888. See Propyl gallate NCRP recommendation, permissible dose of radiation, 1:12 NCVs. See Nerve conduction velocities 2-NDB. See 2-Nitro-1,4-phenylenediamine 4-NDB. See 4-Nitro-1,2-phenylenediamine NDBA. See Nitrosodi-n-butylamine NDBzA. See Nitrosodibenzylamine NDEA. See N-Nitrosodiethylamine n-Decyl alcohol. See 1-Decanol NDELA. See Nitrosodiethanolamine NDMA. See Dimethylnitrosamine; N-Nitrosodimethylamine NDPA. See Nitrosodi-n-propylamine Necatorina. See Carbon tetrachloride Necatorine. See Carbon tetrachloride Neisseria gonorrhoeae bacterium scanning electron micrograph of, 5:512f Nemabrom. See 1,2-Dibromo-3-chloropropane

Nemafume, Nemagon. See 1,2-Dibromo-3-chloropropane

Nemagon 206. See 1,2-Dibromo-3-chloropropane Nemagon soil fumigant. See 1,2-Dibromo-3-chloropropane Nemanax. See 1,2-Dibromo-3-chloropropane Nemapaz. See 1,2-Dibromo-3-chloropropane Nemaset. See 1,2-Dibromo-3-chloropropane Nematocide. See 1,2-Dibromo-3-chloropropane Nematox. See 1,2-Dibromo-3-chloropropane Nemazon. See 1,2-Dibromo-3-chloropropane Neo-cultol. See White oils Neodecanoic acid, 2,3-epoxypropyl ester. See Neodecanoic acid, glycidyl ester Neodecanoic acid, glycidyl ester, 4:512 chemical and physical properties, 4:512 exposure assessment, 4:513 guidelines of exposure, 4:514 production and use, 4:513 toxic effects experimental studies, 4:513-514 human experience, 4:514 Neo-fat 18. See Stearic acid Neo-fat 18-53. See Stearic acid Neo-fat 18-54. See Stearic acid Neo-fat 18-55. See Stearic acid Neo-fat 18-59. See Stearic acid Neo-fat 18-61. See Stearic acid Neo-fat 90-04. See Oleic acid Neo-fat 18-s. See Stearic acid Neohexane. See 2,2-Dimethylbutane Neopentane. See 2,2-Dimethylpropane Neopentanediol diacrylate. See 2,2-Dimethyl-1,3-propanediol diacrylate Neopentyl glycol diacrylate. See 2,2-Dimethyl-1,3-propanediol diacrylate Neopentyl glycol diglycidyl ether, 4:474 chemical and physical properties, 4:474 exposure assessment, 4:474 guidelines of exposure, 4:475 production and use, 4:474 toxic effects, 4:475 Neoplasms, 1:153 Neoprene, β–Chloroprene Neosone D. See N-Phenyl-2-naphthylamine Neozon D. See N-Phenyl-2-naphthylamine Neozone. See N-Phenyl-2-naphthylamine Nephrotoxicity chronic, 1:359 symptoms, 1:712 Nericur. See Dibenzoyl peroxide Nerve conduction velocities (NCVs), 1:485 Nervous system, 1:39 cellular components, , structure, 1:39 glia, 1:39 neurons, 1:39 disorders. 1:531 function of, 1:41 axonal transport, 1:43 chemical neurotransmission across synapse, 1:42 electrical properties of excitable nerve cells, 1:41, 1:42 energy metabolism, 1:42, 1:43

general description, 1:39 mechanisms for lead effects, 1:391t regions of nervous system, 1:39 Nesol. See Limonene NEU. See N-Ethyl-N-nitrosourea Neurobehavioral evaluation system (NES), 1:53 Neurobehavioral test scores, 1:407 Neurodegenerative diseases, 1:36, 1:52 Neuropathy target enzyme (NTE), 1:61 Neurotic introverts, 6:366 Neuroticism, 6:366 Neurotoxic compounds, 1:56 metals, 1:56-58 persistent organic chemicals, 1:62 pesticides, 1:60-62 solvents, 1:58 neurotoxic effects of exposure, 1:58-60 Neurotoxic disorders, prevention of, 1:62-63 Neurotoxic episodes, 1:35 Neurotoxicity, 1:35, 1:36, 1:37, 1:38, 1:390 definitions of, 1:37, 1:38 neurobehavioral effects reported, from chemicals, 1:38 neurotoxic episodes, 1:35 NIOSH recommendation for maximal exposure standards, 1:39 reference concentration (RfC), 1:39 reference dose (RfD), 1:39 testing, 1:36 threshold limit values (TLVs) for compounds, 1:39 Neurotoxic outcomes, 1:44 functional changes, 1:45 cognitive functions, 1:49–51 mood, affect, and social conduct, 1:51 motor functions, 1:48, 1:49 sensory functions, 1:45-48 pathological changes, 1:44 axonopathy, 1:44 myelinopathy, 1:44, 1:45 neuronopathy, 1:44 Neutral species volatilization, 2:721 Neutron activation analysis (NAA), 1:188, 1:446, 1:477, 1:515, 1:517, 1:690, 1:773, 1:774, 1:803, 1:823 Neutrons, 1:2, 1:10 Neutrosel Navy BN. See 3,3'-Dimethoxybenzidine Newpol LB3000. See Polypropylene glycol butyl ethers NG. See N-Methyl-N-nitroso-N'-nitroguanidine; Nitroglycerin NHANES. See National Health and Nutrition Examination Survey n-Hexyl acetate, 4:87 chemical and physical properties, 4:87 odor and warning properties, 4:87 production and use, 4:87 toxic effects, 4:87 experimental studies, 4:87 human experience, 4:87 Nicel. See Methyl cellulose Nickel acute toxicity, 1:656, 1:660 carcinogenesis, 1:659, 1:662 chemical and physical properties, 1:653, 1:654t

chronic and subchronic toxicity, 1:656, 1:660 clinical cases, 1:660-664 dermal exposure, 1:657, 1:658, 1:661 determination in the biological material, 1:656 environmental impact, 1:664-665 exposure assessment, 1:655-656, 1:665t in air, 1:655 in background levels, 1:656 workplace methods, 1:656 genetic and related cellular effect studies, 1:659-660, 1:664 inhalation exposure, 1:657, 1:660, 1:661 isotopes, 1:655t nickel metabolism, kinetic model, 1:658 nickel processing plants, 1:663-664 nickel refining plants and mines, 1:662-663 oral exposure, 1:657, 1:658, 1:661 pharmacokinetics, metabolism, and mechanisms, 1:657-659, 1:660 absorption, 1:657, 1:660-661 distribution, 1:657-658, 1:661 excretion, 1:658, 1:661 production and use, 1:653-655 reproductive and developmental effects, 1:659, 1:662 standards, regulations, or guidelines of exposure, 1:664 suspected mechanism of carcinogenesis, 1:658-659 toxic effects, 1:656-664, 1:656t experimental study, 1:656-660 human experience, 1:660-664 Nickel carbonate, 1:669 acute toxicity, 1:670 carcinogenesis, 1:670 chemical and physical properties, 1:670 chronic and subchronic toxicity, 1:670 exposure assessment, 1:670, 1:671t genetic and related cellular effect studies, 1:670 pharmacokinetics, metabolism, and mechanisms, 1:670 production and use, 1:670 reproductive and developmental effects, 1:670 standards, regulations, or guidelines of exposure, 1:671 toxic effects, 1:670-671 experimental studies, 1:670 human experience, 1:670-671 Nickel carbonyl, 1:676 acute toxicity, 1:678, 1:678t, 1:679-680 carcinogenesis, 1:679, 1:680 chemical and physical properties, 1:654t, 1:677 odor and warning properties, 1:677 chronic and subchronic toxicity, 1:678, 1:680 clinical cases and epidemiology studies, 1:679-680 exposure assessment, 1:677, 1:681t in air, 1:677 background levels, 1:677-678 workplace methods, 1:677 genetic and cellular effect studies, 1:679 genetic and related cellular effect studies, 1:680 pharmacokinetics, metabolism, and mechanisms, 1:678-679, 1:680 poisoning, symptoms, 1:680 production and use, 1:677

reproductive and developmental effects, 1:679, 1:680 standards, regulations, and guidelines of exposure, 1:680 toxic effects, 1:678-680 experimental studies, 1:678-679 human experience, 1:679-680 Nickel chloride, 1:680 acute toxicity, 1:681, 1:683 administration, 1:658 carcinogenesis, 1:682, 1:683 chemical and physical properties, 1:654t, 1:681 chronic and subchronic toxicity, 1:681, 1:683 clinical cases, 1:683 exposure assessment, 1:681, 1:684t genetic and related cellular effect studies, 1:682-683, 1:683 pharmacokinetics, metabolism, and mechanisms, 1:681, 1:683 production and use, 1:681 reproductive and developmental effects, 1:681-682, 1:683 standards, regulations, or guidelines of exposure, 1:683 toxic effects, 1:681-683 experimental study, 1:681-683 human experience, 1:683 Nickel hydroxide, 1:683 acute toxicity, 1:684 carcinogenesis, 1:684 chemical and physical properties, 1:654t, 1:684 chronic and subchronic toxicity, 1:684 exposure assessment, 1:684, 1:685t genetic and related cellular effect study, 1:684 pharmacokinetics, metabolism, and mechanisms, 1:684 production and use, 1:684 reproductive and developmental effects, 1:684 standards, regulations, or guidelines of exposure, 1:685 toxic effects, 1:684-685 experimental study, 1:684 human experience, 1:685 Nickel intake index, 1:661 Nickelocene, 1:675 acute toxicity, 1:676 carcinogenesis, 1:676 chemical and physical properties, 1:654t, 1:676 chronic and subchronic toxicity, 1:676 exposure assessment, 1:676, 1:677t genetic and related cellular effect studies, 1:676 human experience, 1:676 pharmacokinetics, metabolism, and mechanisms, 1:676 production and use, 1:676 standards, regulations, or guidelines of exposure, 1:676 toxic effects experimental study, 1:676 human experience, 1:676 Nickel oxide acute toxicity, 1:666, 1:666t, 1:667 carcinogenesis, 1:667, 1:668t, 1:669 chemical and physical properties, 1:666 chronic and subchronic toxicity, 1:666-667, 1:667 clinical cases, 1:667-669 exposure assessment, 1:666, 1:669t genetic and related cellular effects studies, 1:667, 1:669 pharmacokinetics, metabolism, and mechanisms, 1:667

Nickel oxide (Continued) production and use, 1:666 reproductive and developmental effects, 1:667, 1:669 standards, regulations, or guidelines of exposure, 1:669 toxic effects, 1:666-669 experimental studies, 1:666-667 human experience, 1:667-669 Nickel subsulfide acute toxicity, 1:671-672, 1:672 carcinogenesis, 1:672, 1:673t-674t, 1:675 chemical and physical properties, 1:671 chronic and subchronic toxicity, 1:672 chronic and subchronic toxicity consequences of chronic exposure to, 1:672 clinical cases, 1:672-675 exposure assessment, 1:671, 1:675t genetic and related cellular effect studies, 1:672, 1:675 pharmacokinetics, metabolism, and mechanisms, 1:672 production and use, 1:671 reproductive and developmental effects, 1:672, 1:675 standards, regulations, and guidelines of exposure, 1:675 toxic effects, 1:671-675 experimental studies, 1:671-672 human experience, 1:671-675 Nickel sulfate acute toxicity, 1:685-686, 1:686t, 1:687 carcinogenesis, 1:687 chemical and physical properties, 1:654t, 1:685 chronic and subchronic toxicity, 1:686, 1:687-688 clinical cases, 1:687-688 exposure assessment, 1:685, 1:689t genetic and related cellular effect studies, 1:687 pharmacokinetics, metabolism, and mechanisms, 1:686, 1:688 production and use, 1:685 reproductive and developmental effects, 1:686, 1:688 standards, regulations, or guidelines of exposure, 1:688 toxic effects, 1:685-688 experimental studies, 1:685-687 human experience, 1:687-688 Nickel-titanium alloy, 1:429 Nicotinamide adenosine diphosphate-cytochrome C reductase, 2:752 Nicotine, 2:817 carcinogenesis, 2:820 chemical and physical properties, 2:817 environmental impact, studies on, 2:821-822 exposure assessment, 2:818 genetic and related cellular effects studies, 2:820 human experience, 2:821 acute toxicity, 2:821 neurological, pulmonary, and skin sensitization, 2:820 odor and warning properties, 2:817 production and use, 2:817-818 standards, regulations, or guidelines of exposure, 2:821 toxic effects, 2:818 acute toxicity, 2:818 chronic and subchronic toxicity, 2:818 experimental studies, 2:818 pharmacokinetics, metabolism, and mechanisms, 2:818-820 Night work, 6:363 Night workers, provisions, 6:368t Nilox PBNA. See N-Phenyl-2-naphthylamine Nimax. See Trichloronitromethane Niobium acute toxicity, 1:541, 1:545 carcinogenesis, 1:544, 1:545 chemical and physical properties, 1:538-540 odor and warning properties, 1:540 chemical identity, 1:539t chronic and subchronic toxicity, 1:541-542, 1:545 clinical cases, 1:545 exposure assessment, 1:540-541 in air, 1:540 in background levels, 1:540 biomonitoring/biomarkers, 1:541 in blood, 1:541 community methods, 1:541 in urine, 1:541 workplace methods, 1:540-541 genetic and related cellular effect studies, 1:544, 1:545 neurological, pulmonary, skin sensitization, 1:544, 1:545 pharmacokinetics, metabolism, and mechanisms, 1:542-544, 1:545 absorption, 1:542 distribution, 1:543 excretion, 1:543-544 production and use. 1:540 reproductive and developmental studies, 1:544, 1:545 standards, regulations, or guidelines of exposure, 1:546 studies on environmental impact, 1:546 toxic effects, 1:541-545 epidemiology studies, 1:545 experimental studies, 1:541-545 human experience, 1:545 Niobium pentachloride (NbCl₅), 1:540 NIONG. See Nitroglycerin NIOSH. See National Institute for Occupational Safety and Health Nipar-S-20. See 2-Nitropropane Nipar-S-30 solvent. See 2-Nitropropane Niphen. See 4-Nitropheno Nitradisc. See Nitroglycerin Nitrador. See 4,6-Dinitro-o-cresol Nitramine. See Tetryl Nitranilin. See 3-Nitroaniline; m-Nitroaniline m-Nitraniline. See m-Nitroaniline o-Nitraniline; C.I. 37025. See 2-Nitroaniline Nitration benzene. See Benzene Nitrazol CF Extra. See 4-Nitroaniline Nitrazol CF Extra Red 2G Base. See p-Nitroaniline Nitric acid synthetase inhibitors aminoguanidine/peroxynitrate scavengers, 2:716 Nitric ether. See Ethyl nitrate Nitric oxide, 1:968-969 exposure assessment, 1:970-971 occupational and nonoccupational occurrence, 1:970t physical and chemical properties, 1:969 production and use, 1:969-970 standards, regulations, or guidelines of exposure, 1:976

exposure limits, 1:976 measurement, 1:977-978 prevention, 1:976-977 treatment, 1:977 toxic effects, 1:971 acute toxicity, 1:971-975 chronic and subchronic toxicity, 1:975-976 Nitriles, 2:960-991 chemical and physical properties, 2:950t-951t general, 2:945, 2:961 2,2',2"-Nitrilotriethanol. See Triethanolamine 1,1',1"-Nitrilotri-2-propanol. See Triisopropanolamine 1,1',1"-Nitrilotripropan-2-ol. See Triisopropanolamine Nitrilotris (2-propanol). See Triisopropanolamine 1,1',1"-Nitrilotris-2-butanol. See Tri-sec-Butanolamine Nitroalkanes, 2:351, 2:353 chemical and physical properties of, 2:351 occupational exposure limits for, 2:355 oxidative denitrification, 2:353 m-Nitroaminobenzene. See 3-Nitroaniline; m-Nitroaniline 5-Nitro-2-aminophenol. See 2-Amino-5-nitrophenol p-Nitro-o-aminophenol. See 2-Amino-4-nitrophenol Nitroaminophenols, 2:641 4-Nitro-2-aminotoluene. See 5-Nitro-o-toluidine 3-Nitroanaline. See m-Nitroaniline 2-Nitroaniline, 2:559. See also o-Nitroaniline chemical and physical properties, 2:559 guidelines of exposure, 2:560 production and use, 2:559 toxic effects. 2:560 3-Nitroaniline, 2:560. See also m-Nitroaniline chemical and physical properties, 2:560 guidelines of exposure, 2:560 production and use, 2:560 toxic effects. 2:560 4-Nitroaniline, 2:560. See also p-Nitroaniline chemical and physical properties, 2:561 exposure assessment, 2:561 guidelines of exposure, 2:561 production and use, 2:561 toxic effects. 2:561 *m*-Nitroaniline, 2:626 chemical and physical properties, 2:626 production and use, 2:627 toxic effects, 2:627 o-Nitroaniline, 2:626 production and use, 2:626 toxic effects. 2:626 p-Nitroaniline, 2:627 chemical and physical properties, 2:627 exposure assessment, 2:627 production and use, 2:627 toxic effects carcinogenesis, 2:628 experimental studies, 2:627 guidelines of exposure, 2:628 human experience, 2:628 pharmacokinetics, metabolism, and mechanisms, 2:627 reproductive and developmental, 2:627-628

2-Nitroanisole, 2:542 chemical and physical properties, 2:542 guidelines of exposure, 2:542 production and use, 2:542 toxic effects, 2:542 Nitroarene air pollutants physical properties of, 2:523 3-Nitrobenzaldehyde. See also m-Nitrobenzaldehyde chemical and physical properties, 3:712 toxic effects, 3:713 4-Nitrobenzaldehyde. See p-Nitrobenzenaldehyde *m*-Nitrobenzaldehyde, **3:**712 p-Nitrobenzaldehyde, 3:710 p-Nitrobenzenaldehyde, 3:715 chemical and physical properties, 3:715 toxic effects, 3:715 2-Nitrobenzenamine. See 2-Nitroaniline; o-Nitroaniline 3-Nitrobenzenamine. See 3-Nitroaniline; m-Nitroaniline 4-Nitrobenzenamine. See 4-Nitroaniline; p-Nitroaniline Nitrobenzene, 2:524 chemical and physical properties, 2:524 exposure assessment, 2:524-526 guidelines of exposure, 2:526 production and use, 2:524 toxic effects, 2:526 2-Nitro-1,4-benzenediamine. See 2-Nitro-1,4-phenylenediamine 4-Nitro-1,2-benzenediamine. See 4-Nitro-1,2-phenylenediamine Nitrobenzol. See Nitrobenzene 2-Nitrobiphenyl, 2:586 guidelines of exposure, 2:587 physical and chemical properties, 2:586 production and use, 2:586 toxic effects, 2:587 2-Nitro-1,1'-biphenyl. See 2-Nitrobiphenyl 4-Nitrobiphenyl, 2:587 chemical and physical properties, 2:587 exposure assessment, 2:587 guidelines of exposure, 2:587 production and use, 2:587 toxic effects, 2:587 4-Nitro-1,1'-biphenyl. See 4-Nitrobiphenyl o-Nitrobiphenyl. See 2-Nitrobiphenyl 1-Nitrobutane, 2:365 2-Nitrobutane, 2:365 chemical and physical properties, 2:365 exposure assessment, 2:365-366 guidelines of exposure, 2:366 toxic effects, 2:366 Nitrocap. See Nitroglycerin Nitrocarbol. See Nitromethane Nitrocellulose. See Cellulose nitrate 2-Nitro-4-chloroaniline. See 4-Chloro-2-nitroaniline Nitrochlorobenzene. See 1-Chloro-3-nitrobenzene; 1-Chloro-4nitrobenzene; m-Chloronitrobenzene; p-Chloronitrobenzene 1-Nitrochlorobenzene. See 1-Chloro-3-nitrobenzene 1-Nitro-2-chlorobenzene. See 1-Chloro-2-nitrobenzene 2-Nitrochlorobenzene. See 1-Chloro-2-nitrobenzene; o-Chloronitrobenzene

3-Nitrochlorobenzene. See 1-Chloro-3-nitrobenzene; *m*-Chloronitrobenzene 4-Nitrochlorobenzene. See 1-Chloro-4-nitrobenzene; *p*-Chloronitrobenzene p-Nitrochlorobenzene. See p-Chloronitrobenzene para-Nitrochlorobenzene. See 1-Chloro-4-nitrobenzene Nitrochloroform. See Trichloronitromethane Nitrocine. See Nitroglycerin Nitrocotton. See Cellulose nitrate 2-Nitro-1,4-diaminobenzene. See 2-Nitro-1,4-phenylenediamine 4-Nitro-1,2-diaminobenzene. See 4-Nitro-1,2-phenylenediamine Nitroetan. See Nitroethane Nitroethane, 2:359 chemical and physical properties, 2:359 exposure assessment, 2:359-360 guidelines, 2:360 production and use, 2:359 toxic effects, 2:360 Nitrogen, 1:967 chemical and physical properties, 1:967 exposure assessment, 1:967 production and use, 1:967 standards, regulations, or guidelines of exposure, 1:968 toxic effects, 1:967 experimental studies, 1:967-968 human experience, 1:967-968 Nitrogen mustard (hydrochloride) carcinogenesis, 2:716 chemical and physical properties, 2:715 environmental impact studies, 2:717 exposure assessment, 2:715 exposure standards, 2:717 genetic and cellular effects, 2:716-717 pharmacokinetics, metabolism, and mechanisms, 2:716 production and use, 2:715 reproductive and developmental effects, 2:716 toxic effects acute toxicity, 2:715-716 experimental studies, 2:715-717 human experience, 2:717 subchronic and chronic toxicity, 2:716 Nitrogen mustard N-oxide (hydrochloride) carcinogenesis, 2:718 chemical and physical properties, 2:718 environmental impact studies, 2:719 exposure assessment, 2:718 exposure standards, 2:719 genetic and cellular effects, 2:718-719 pharmacokinetics, metabolism, and mechanisms, 2:718 production and use, 2:718 reproductive and developmental effects, 2:718 toxic effects acute toxicity, 2:718 experimental studies, 2:718-719 human experience, 2:719 subchronic and chronic toxicity, 2:718 Nitrogen mustards. See Chloroethylamines Nitrogen oxides in vivo nitrosating potential, 2:741

Nitroglycerin, 2:383 chemical and physical properties, 2:383 exposure assessment, 2:383 guidelines of exposure, 2:385 production and use, 2:383 toxic effects, 2:384-385 Nitroglycerol. See Nitroglycerin Nitroglycol. See Ethylene glycol dinitrate Nitroglyn. See Nitroglycerin 2-Nitro-2-heptene, 2:372 3-Nitro-3-heptene, 2:372 2-Nitro-2-hexene, 2:371 3-Nitro-3-hexene, 2:371-372 Nitroisopropane. See 2-Nitropropane Nitroject. See Nitroglycerin Nitro kleenup. See 2,4-Dinitrophenol Nitrol. See Nitroglycerin Nitromethane, 2:353 acute toxicity of, 2:356 carcinogenicity of, 2:356 chemical and physical properties, 2:355 exposure assessment, 2:355 genotoxicity, 2:357 guidelines and exposure, 2:357 inhalation experiments, 2:354 production and use, 2:355 subchronic toxicity of, 2:356 toxic effects, 2:355 Nitronet. See Nitroglycerin Nitrong parenteral. See Nitroglycerin 2-Nitro-2-nonene, 2:373 3-Nitro-3-nonene, 2:374 chemical and physical properties, 2:373 exposure assessment, 2:373 guidelines of exposure, 2:375 production and use, 2:373 toxic effects, 2:373 2-Nitro-2-octene, 2:372 3-Nitro-2-octene, 2:372-373 3-Nitro-3-octene, 2:372 Nitroolefins. 2:371 acute effects of, 2:374 3-Nitro-o-phenylenediamine. See 3-Nitro-1,2phenylenediamine 1-Nitropan. See 1-Nitropropane Nitroparaffins, 2:351 2-Nitro-p-PDA. See 2-Nitro-1,4-phenylenediamine Nitropentachlorobenzene. See Pentachloronitrobenzene Nitropentaerythrite. See Pentaerythritol tetranitrate Nitropentaerythritol. See Pentaerythritol tetranitrate 3-Nitro-2-pentene, 2:371 4-Nitroperoxybenzoic acid, 4:588 exposure assessment, 4:588 production and use, 4:588 toxic effects, 4:588 p-Nitroperoxybenzoic acid. See 4-Nitroperoxybenzoic acid 4-Nitropheno, 2:536 chemical and physical properties, 2:536 guidelines of exposure, 2:537

production and use, 2:536 toxic effects, 2:536-537 2-Nitrophenol, 2:535 chemical and physical properties, 2:535 guidelines of exposure, 2:535 production and use, 2:535 toxic effects, 2:535 3-Nitrophenol, 2:535 chemical and physical properties, 2:536 guidelines of exposure, 2:536 production and use, 2:536 toxic effects, 2:536 m-Nitrophenylamine. See 3-Nitroaniline; m-Nitroaniline p-Nitrophenylamine. See 4-Nitroaniline; p-Nitroaniline 1-Nitro-4-phenylbenzene. See 4-Nitrobiphenyl p-Nitrophenyldimethylthionophosphate. See Methyl parathion 2-Nitro-1,4-phenylenediamine, 2:564, 2:650 chemical and physical properties, 2:564, 2:650 guidelines of exposure, 2:565, 2:651 pharmacokinetics, metabolism, and mechanisms, 2:651 production and use, 2:564, 2:650 toxic effects, 2:564-565, 2:651 3-Nitro-1,2-phenylenediamine, 2:651 4-Nitro-1,2-phenylenediamine, 2:565, 2:651 chemical and physical properties, 2:565, 2:652 guidelines of exposure, 2:565, 2:652 pharmacokinetics, metabolism, and mechanisms, 2:652 production and use, 2:565, 2:652 toxic effects, 2:565, 2:652 4-Nitro-1,2-phenylene-diamine. See 4-Nitro-1,2phenylenediamine 4-Nitro-o-phenylenediamine. See 4-Nitro-1,2-phenylenediamine o-Nitro-p-phenylenediamine. See 2-Nitro-1,4-phenylenediamine Nitro-p-phenylenediamine. See 2-Nitro-1,4-phenylenediamine m-Nitrophenylmethane. See 3-Nitrotoluene o-Nitrophenylmethane. See 2-Nitrotoluene p-Nitrophenylmethane. See 4-Nitrotoluene o-Nitrophenyl methyl ether. See 2-Nitroanisole 1-Nitropropane, 2:364 chemical and physical properties, 2:364 exposure assessment, 2:364 guidelines of exposure, 2:365 production and use, 2:364 toxic effects, 2:364-365 2-Nitropropane, 2:360 chemical and physical properties, 2:360 exposure assessment, 2:361 guidelines of exposure, 2:363 production and use, 2:361 toxic effects, 2:361-363 β-Nitropropane. See 2-Nitropropane *n*-Nitropropane. See 1-Nitropropane 2-Nitro-2-propene, 2:371 Nitrosamides, 2:864 chemical and physical properties, 2:865 environmental impact, studies, 2:869 exposure assessment, 2:866 guidelines of exposure, 2:868-869 production and use, 2:866

toxic effects, 2:866-868 Nitrosamines (NDMA) in foods, 2:402 in tobacco smoke, 2:402 N-nitrosoatrazine (NNAT) in vitro studies of, 2:403 Nitrosobis(2-hydroxyethyl)amine. See Nitrosodiethanolamine N-Nitroso compounds, 2:401 carcinogenic, 2:401 cell transformation, 2:404-405 chronic effects-carcinogenicity, 2:406-407 human exposure, 2:402 metabolism and activation, 2:405-406 mutagenesis, 2:404-405 risk assessment, 2:407 toxicity of, 2:404 Nitrosodibenzylamine, 2:420 chemical and physical properties, 2:420 exposure analysis, 2:420 production, use, and exposure opportunity, 2:420 toxic effects, 2:421 Nitrosodi-n-butylamine, 2:412 chemical and physical properties, 2:412 exposure analysis, 2:412 production, use, and exposure opportunity, 2:412 toxic effects, 2:413 Nitrosodiethanolamine (NDELA), 2:403, 2:414 chemical and physical properties, 2:415 exposure analysis, 2:415 production, use, and exposure opportunity, 2:415 toxic effects, 2:415 N-Nitrosodiethylamine, 2:410 chemical and physical properties, 2:411 exposure analysis, 2:411 production, use, and exposure opportunity, 2:411 toxic effects, **2:**411–412 Nitrosodimethylamine activation of, 2:403 N-Nitrosodimethylamine, 2:408. See also Dimethylnitrosamine chemical and physical properties, 2:408 exposure analysis, 2:408 production, use, and exposure opportunity, 2:408 toxic effects, 2:409-410 Nitrosodimethylamine (NDMA), 2:401 methylates DNA, 2:402 N-Nitrosodiphenylamine, 2:418 chemical and physical properties, 2:418 exposure analysis, 2:418 production, use, and exposure opportunity, 2:418 toxic effects, 2:419 Nitrosodi-n-propylamine, 2:413 chemical and physical properties, 2:413 exposure analysis, 2:413 production, use, and exposure opportunity, 2:413 toxic effects, 2:414 Nitrosoethylurea. See N-Ethyl-N-nitrosourea N-Nitroso-N-methylurea, 2:423 chemical and physical properties, 2:423 exposure analysis, 2:423

N-Nitroso-N-methylurea (Continued) production, use, and exposure opportunity, 2:423 toxic effects, 2:423-424 Nitrosomethylurethane, 2:864 Nitrosomethylvinylamine, 2:414 chemical and physical properties, 2:414 exposure analysis, 2:414 production, use, and exposure opportunity, 2:414 toxic effects, 2:414 Nitrosomorpholine, 2:415 chemical and physical properties, 2:416 exposure analysis, 2:416 production, use, and exposure opportunity, 2:416 toxic effects, 2:416 Nitrosonornicotine, 2:421 chemical and physical properties, 2:421 exposure analysis, 2:421 production, use, and exposure opportunity, 2:421 toxic effects, 2:421-422 Nitrosopiperidine, 2:416 chemical and physical properties, 2:416 exposure analysis, 2:417 production, use, and exposure opportunity, 2:416-417 toxic effects, 2:417 Nitrosoproline, 2:420 chemical and physical properties, 2:420 exposure analysis, 2:420 production, use, and exposure opportunity, 2:420 toxic effects, 2:420 Nitrosopyrrolidine, 2:417 chemical and physical properties, 2:417 exposure analysis, 2:418 production, use, and exposure opportunity, 2:417 toxic effects, 2:418 N-Nitrosopyrrolidine, 2:726 N-Nitrososarcosine, 2:419 chemical and physical properties, 2:419 exposure analysis, 2:419 production, use, and exposure opportunity, 2:419 toxic effects, 2:419 Nitrospan. See Nitroglycerin Nitrostat. See Nitroglycerin 2-Nitrotoluene, 2:542 chemical and physical properties, 2:543 exposure assessment, 2:543 guidelines of exposure, 2:544 production and use, 2:543 toxic effects. 2:543 3-Nitrotoluene, 2:544 chemical and physical properties, 2:544 exposure assessment, 2:544 guidelines of exposure, 2:544 production and use, 2:544 toxic effects. 2:544 4-Nitrotoluene, 2:544 chemical and physical properties, 2:545 exposure assessment, 2:545 guidelines of exposure, 2:545 production and use, 2:545

toxic effects, 2:545 o-Nitrotoluene. See 2-Nitrotoluene p-Nitrotoluene. See 4-Nitrotoluene 5-Nitro-o-toluidine, 2:577, 2:640 chemical and physical properties, 2:578, 2:640-641 exposure assessment, 2:641 guidelines of exposure, 2:578, 2:641 production and use, 2:578, 2:641 toxic effects, 2:578, 2:641 2-Nitrotoluol. See 2-Nitrotoluene 4-Nitrotoluol. See 4-Nitrotoluene m-Nitrotoluol. See 3-Nitrotoluene Nitrotrichloromethane. See Trichloronitromethane Nitrous acid. See Isoamyl nitrite; Methyl nitrite Nitrous acid ethyl ester. See Ethyl nitrite Nitrous ether. See Ethyl nitrite Nitrous oxide, 1:978 chemical and physical properties, 1:978 exposure assessment, 1:978-979 production and use, 1:978 standards, regulations, or guidelines of exposure, 1:980 measurement (exposure monitoring), 1:980 prevention, 1:980-981 toxic effects, 1:979-980 NK cells. See Natural killer (NK) cells NM 14. See Polyvinyl alcohol NMDA, receptor function, 1:389 NMOR. See Nitrosomorpholine NMR. See Nuclear magnetic resonance (NMR) studies NMU. See N-Nitroso-N-methylurea NMUT. See Nitrosomethylurethane NMVA. See Nitrosomethylvinylamine NNAT. See N-nitrosoatrazine (N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone. See 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone NNK. See 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone NNN. See Nitrosonornicotine 4-NO. See 4-Nitro-1,2-phenylenediamine Nocrac D. See N-Phenyl-2-naphthylamine Noctec. See Chloral hydrate NOEL. See No observable effect level Noise. 6:82-83 acoustic cavitation, 6:102 biophysical considerations, 6:102-103 inertial cavitation, 6:102 noninertial cavitation, 6:102 relevant cavitation-related bioeffects, 6:104t acoustic trauma versus noise-induced hearing loss (NIHL), 6:83-84 amplified music, listening to, 6:97 personal listening devices, 6:97 rock concerts, 6:97 biological effects of infrasound. 6:99-100 of ultrasound, 6:100 definition of, 6:82 exposure assessment, 6:94-95 hazards, 6:92-93 measurement of exposure, 6:93-94

noise-induced hearing loss (NIHL), 6:84 mechanisms causing, 6:88-90 nonoccupational exposure maximum sound pressure levels for common sources, 6:96t types of, 6:96 nonoccupational noise hazard by hunting and target shooting, 6:97 occupational noise exposure, types of, 6:95 OSHA maximum daily noise exposure limit, 6:93t permanent threshold shifts, 6:86 prevention and management, 6:97-98 education, 6:98 prevention of exposure, 6:98 wear hearing protection, 6:98-99 speech communication in, 6:83 studies of occupational noise exposure, 6:86-88 temporary threshold shifts, 6:84-86 Nomex, 4:947 Nonamethylene. See Cyclononane Nonane. See n-Nonane n-Nonane, 2:38 exposure assessment, 2:39 guidelines of exposure, 2:40 occupational exposure limits for, 2:40 production and use, 2:39 toxic effects, 2:39 1-Nonanecarboxylic acid. See Capric acid Nonanedioic acid. See Azelaic acid Nonanedioic acid, bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) azelate Nonanedioic acid dibutyl ester. See Dibutyl azelate Nonanoic acid, 3:498 chemical and physical properties, 3:498 exposure assessment, 3:498 guidelines of exposure, 3:499 production and use, 3:498 toxic effects experimental studies, 3:498-499 human experience, 3:499 1-Nonanol, 4:12 chemical and physical properties, 4:12 production and use, 4:13 toxic effects, 4:13 acute toxicity, 4:13 clinical cases, 4:13 experimental studies, 4:13 human experience, 4:13 reproductive and developmental, 4:13 5-Nonanone, 3:881 chemical and physical properties, 3:881 environmental impact, studies, 3:882 exposure assessment, 3:881 guidelines of exposure, 3:882 metabolism of, 3:810f production and use, 3:881 toxic effects experimental studies, 3:881-882 human experience, 3:882 Nonan-5-one. See 5-Nonanone

Noncancer risk assessment, 5:89 dose-response assessment, 5:98 general principles, 5:98 occupational approaches to, 5:111-112 safety/uncertainty factors, extrapolation, 5:106-111 short-term approaches, 5:103-106 USEPA's method, 5:98-103 goals, 5:91t hazard characterization essential elements and bioavailability, 5:97 evaluation of mode of action, 5:96-97 general principles, 5:91-93 human/animal data, evaluation of, 5:93-94 route, source, and duration of exposure, 5:94 toxicological effects, evaluation of, 5:94-96 weight of evidence (WOE), 5:97-98 mode of action (MOA), 5:89 occupational, environmental, and food safety issues, 5:120 occupational exposure limits (OELs), 5:90 Occupational Safety and Health Administration (OSHA), 5:90 problem formulation, 5:91 quantitative assessment, 5:90 risk characterization evaluating the uncertainty, 5:123-124 margin of exposureapproach, 5:124-125 margin of safety (MOS), 5:124-125 qualitative summary, developing, 5:121-122 risk estimate, 5:122-123 USEPA, 5:120 traditional approaches, refinements/recent developments, 5:112-120 Nonene, 2:64 Nonionizing electromagnetic fields (EMFs), 6:109 effects of power line EMFs on other organ systems, 6:117 electrical hypersensitivity, 6:118-119 neurobehavioral effects of, 6:118-119 neurodegenerative diseases, 6:116-117 sources of, 6:110t Nonionizing radiation, 1:1 dose, 1:4 Nonlethal genetic damage, 1:6 n-Nonoic acid. See Nonanoic acid Nonox D. See N-Phenyl-2-naphthylamine Nonox DN. See N-Phenyl-2-naphthylamine Non-substances of very high concern (SVHCs), 5:30 Nonsubstance-specific mechanism, 1:659 Nonyl alcohol. See 1-Nonanol n-Nonyl alcohol. See 1-Nonanol Nonyl carbinol. See 1-Decanol Nonyl hydride. See n-Nonane n-Nonylic acid. See Nonanoic acid n-Nonyl mercaptan, 4:1050–1051 tert-Nonyl mercaptan animal and human studies, 4:1051 chemical and physical properties, 4:1051 Nonylol. See 3,5,5-Trimethylhexanol Nonylphenol ethoxylates (NPEs), 5:37 No observable adverse effect level (NOAEL), 2:245, 2:370, 2:729, 2:733, 2:964

No-observable effect level (NOEL), 1:365, 1:525, 2:728, 2:763 No-observed-adverse-effect levels (NOAELs), 6:478 4-NOP. See 4-Nitro-1,2-phenylenediamine 4-NOPD. See 4-Nitro-1,2-phenylenediamine Nordic expert group (NEG) health risks, 5:25 Normal propyl chloroformate (NPCF). See Propyl chloroformate Norralamine. See n-Butylamine Nortec. See Chloral hydrate North American Industry Classification System (NAICS), 1:778 No Scald. See Diphenylamine Novaculite. See Silicon dioxide Novadelox. See Dibenzoyl peroxide 4-N-o-PDA. See 4-Nitro-1,2-phenylenediamine NPGDA. See 2,2-Dimethyl-1,3-propanediol diacrylate NPGDE. See Neopentyl glycol diglycidyl ether NPIP. See Nitrosopiperidine 2-NPPD. See 2-Nitro-1,4-phenylenediamine NPRO. See Nitrosoproline *n*-Propyl acetate, **4:**74 chemical and physical properties, 4:74 exposure assessment, 4:74 workplace methods, 4:74 odor and warning properties, 4:74 production and use, 4:74 toxic effects, 4:74 acute toxicity, 4:74 clinical cases, 4:75 experimental studies, 4:74 human experience, 4:74, 4:75 studies on environmental impact, 4:75 NSC 2626. See Propyl gallate NSC-3072. See Azides NSC 3109. See Methyl o-aminobenzoate NSC 3783. See Methyl p-aminobenzoate NSC 3827. See Methyl paraben NSC 4807. See Resorcinol monobenzoate NSC 4885. See Resorcinol diacetate NSC 6773. See Ethyl cinnamate NSC 8081. See Benzyl benzoate NSC 8204. See Salicylates NSC 8209. See Ethyl salicylate NSC 8468. See n-Dibutyl oxalate NSC 8851. See Diethyl oxalate NSC 8864. See Diethyl malonate NSC 8875. See Diethyl succinate NSC 8911. See Diethyl sebacate NSC 9374. See Dimethyl oxalate NSC 9394. See Methyl benzoate NSC 9411. See Methyl cinnamate NSC 11780. See Benzyl cinnamate NSC 16947. See 2-(Diethylamino) ethyl p-aminobenzoate NSC 20972. See n-Allyl cinnamate NSC 23514. See Ethyl paraben NSC 23515. See Propyl paraben NSC 23516. See Propyl p-aminobenzoate NSC 33405. See Resorcinol dibenzoate NSC 33406. See Phenyl salicylate NSC 40511. See Resorcinol monoacetate

NSC 41531. See Ethyl p-aminobenzoate NSC 44877. See Amyl salicylate NSC 46125. See Amyl salicylate NSC 46163. See Linayl cinnamate NSC 71966. See n-Butyl cinnamate NSC 97419. See Octyl gallate NSC 128464. See Butyl p-aminobenzoate NSC 133463. See Dodecyl gallate NSC 403668. See Amyl salicylate NSC 406146. See n-Propyl cinnamate NSC 406885. See Glyceryl trihexanoate NSC 140 [NLM]. See n-Dibutyl fumarate; Diisooctyl fumarate NSC 1502 [NLM]. See n-Dibutyl succinate NSC1794 [NLM]. See Diethyl itaconate NSC 2296 [NLM]. See Vinyl benzoate NSC 4059 [NLM]. See Glyceryl trioctanoate NSC 5161 [NLM]. See Dimethyl maleate NSC 5647 [NLM]. See Glyceryl trinonanoate NSC 6711 [NLM]. See Dibutyl maleate NSC 8394 [NLM]. See Diethyl maleate NSC 8474 [NLM]. See Butyl benzoate NSC 8884 [NLM]. See Ethyl benzoate NSC 8890 [NLM]. See Glutarates NSC 20954 [NLM]. See Diethyl fumarate NSC 67389 [NLM]. See Diethyl itaconate NSC 68878 [NLM]. See Di(2-ethylhexyl) sebacate NSC 70161 [NLM]. See Diisopropyl fumarate NSC 93294 [NLM]. See Dibutyl azelate NSC 147475 [NLM]. See Glyceryl tridecanoate NSC 3893 [NLM] dibutyl sebacate. See Dibutyl sebacate NSC 36744 tripropanoin. See Glyceryl tripropionate NSV 54739. See Diglycidyl ether 2NT. See 2-Nitrotoluene 3-NT. See 3-Nitrotoluene 4-NT. See 4-Nitrotoluene NTP. See U.S. National Toxicology Program (NTP) Nuclear fission products, 1:16 health effects, 1:16 Nuclear magnetic resonance (NMR) studies, 1:434, 1:498, 1:835 Nuclear Regulatory Commission (NRC), 5:13 standard, 1:784 Nuclear technology, 1:771 Nujol. See White oils Nurses Health Study (NHS), 6:354 NV1107. See Vinyltriethoxy silane Nycoton. See Chloral hydrate Nycton. See Chloral hydrate Nylon, 4:947, 4:950 ammonia from, 4:953f analysis and specifications, 4:947 chemical and physical properties, 4:950 environmental impact, studies, 4:954 exposure assessment, 4:953 guidelines of exposure, 4:954 production and use, 4:947, 4:950-953 toxic effects experimental studies, 4:953-954 human experience, 4:954

CUMULATIVE SUBJECT INDEX, VOLUMES 1-6 657

thermal degradation, 4:954 toxicologic potential, 4:947-950 Nylon 6, 4:954 chemical and physical properties, 4:954-955 guidelines of exposure, 4:955 production and use, 4:955 toxic effects, 4:955 Nylon 11, 4:955 chemical and physical properties, 4:955 exposure assessment, 4:955 guidelines of exposure, 4:955 production and use, 4:955 toxic effects, 4:955 Nylon 12, 4:955 chemical and physical properties, 4:955 exposure assessment, 4:956 guidelines of exposure, 4:956 production and use, 4:955-956 toxic effects, 4:956 Nylon 66, 4:956 chemical and physical properties, 4:956 exposure assessment, 4:956 guidelines of exposure, 4:956 production and use, 4:956 toxic effects, 4:956 Nylon 610, 4:956 chemical and physical properties, 4:956 exposure assessment, 4:957 guidelines of exposure, 4:957 production and use, 4:956-957 toxic effects, 4:957 Nylon 612, 4:957 chemical and physical properties, 4:957 exposure assessment, 4:957 guidelines of exposure, 4:958 production and use, 4:957 toxic effects, 4:957-958 Nylon resins, structures, 4:953f Observed/expected ratio (O/E), 1:797 Obsessive-compulsive disorder, 1:957 OCA. See 2-Chloroaniline; o-Chloroaniline Occupational chemical carcinogenesis, 6:449 cancer hazard identification, alternative methods, 6:463-466 carcinogen identification animal studies, 6:458-453 human studies, 6:452-458 exposures to hazardous substances, 6:451-452 multistage carcinogenesis, concepts of, 6:449-451 occupational exposure circumstances, 6:476t Occupational Safety and Health Act of 1970, 6:451 potential carcinogenicity in humans, 6:466 CalEPA, categories, 6:470 EPA, categories, 6:468-470 IARC, categories, 6:466-468 IARC/NTP/OSHA/PELs, classifications, 6:470-476 NTP, categories, 6:468 Occupational dermatitis, 2:737 Occupational diseases, 5:5

Occupational exposure limits (OELs), 5:8, 5:90 and monitoring methods for esters, 4:354t Occupational exposure standards, risk assessment, 6:476 dose-response assessment, 6:479 animal dose to human dose, 6:480 dose-response analysis, 6:481-484 physiologically based toxicokinetic modeling, estimating tissue dose, 6:480-481 exposure assessment, 6:478-479 general background, 6:476-478 IARC for carcinogenicity in humans, 6:476t risk characterization, 6:484 animals to humans, extrapolation, 6:485-486 low-dose risk, estimation, 6:486 Occupational radionuclide exposures, 1:19 Occupational Safety and Health Administration (OSHA), 1:374, 1:490, 1:610, 1:844, 1:960, 2:706, 2:708, 2:711, 5:6, 5:90, 5:134 air standard values, 1:372 analytical method, 2:982 compliance, 1:385 exposure limit, 2:949 standard, 1:397 standards, 1:412 TWA, 1:455, 1:456 1,2,4,5,6,7,8,8-Octachloro-3a,4,7,7a-tetrahydro-4,7methanoindane. See Chlordane 9.12-Octadecadienoic acid. See Linoleic acid: Linolelaideic acid 9-trans, 12-trans-Octadecadienoic acid. See Linolelaideic acid trans, trans-9,12-Octadecadienoic acid. See Linolelaideic acid Octadecanamine. See Octadecylamine 1-Octadecanamine. See Octadecylamine Octadecanoic acid. See Stearic acid 9,12,15-all-cis-Octadecatrienoic acid. See Linolenic acid (9Z.12Z.15Z)-9.12.15-Octadecatrienoic acid. See Linolenic acid all-cis-9,12,15-octadecatrienoic acid. See Linolenic acid all 9,12,15-Octadecatrienoic acid. See Linolenic acid cis, cis, cis-9, 12, 15-Octadecatrienoic acid. See Linolenic acid (Z,Z,Z)-9,12,15-Octadecatrienoic acid. See Linolenic acid Octadecenoic acid. See Oleic acid 9-Octadecenoic acid. See Oleic acid 9-Octadecenoic acid, (E)-. See Elaidic acid 9-Octadecenoic acid (Z)-. See Oleic acid cis-9-Octadecenoic acid. See Oleic acid cis-Octadec-9-enoic acid. See Oleic acid (E)-9-Octadecenoic acid. See Elaidic acid (Z)-9-Octadecenoic acid. See Oleic acid 9-Octadecenoic acid, 12-hydroxy-, [R-(Z)]-. See Ricinoleic acid Octadecylamine, 2:475 chemical and physical properties, 2:475 guidelines of exposure, 2:475 production and use, 2:475 toxic effects, 2:475 1-Octadecylamine. See Octadecylamine n-Octadecylamine. See Octadecylamine n-Octadecylic acid. See Stearic acid n-Octadecyl mercaptan, 4:1054 animal and human studies, 4:1054 chemical and physical properties, 4:1054

1,6-Octadien-3-ol, 3,7-dimethyl-, cinnamate. See Linayl cinnamate Octafluorohexanedioic acid. See Adipic acid Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine, 2:390 chemical and physical properties, 2:390 exposure assessment, 2:390 guidelines of exposure, 2:390 production and use, 2:390 toxic effects, 2:390 Octamethylene. See Cyclooctane Octanamine. See 1-Octylamine 1-Octanamine. See Dioctylamine; 1-Octylamine 2-Octanamine. See 2-Octylamine Octane. See n-Octane potential occupational exposures, 5:340t n-Octane, 2:34 chemical and physical properties, 2:35 exposure assessment, 2:35 guidelines of exposure, 2:36 occupational exposure limits for, 2:36, 2:37 production and use, 2:35 toxic effects, 2:35 1-Octanecarboxylic acid. See Nonanoic acid 1,8-Octanedicarboxylic acid. See Sebacic acid Octanedioic acid. See Suberic acid Octanoic acid. See Caprylic acid Octanoic acid ethyl ester. See Ethyl caprylate Octanoic acid, 1,2,3-propanetriyl ester. See Glyceryl trioctanoate Octanoic acid triglyceride. See Glyceryl trioctanoate Octanoin, tri-; propane- 1,2,3-triyl trioctanoate. See Glyceryl trioctanoate Octanol. See 1-Octanol 1-Octanol, 4:5 chemical and physical properties, 4:5 odor and warning properties, 4:5 production and use, 4:5 standards, regulations, or guidelines of exposure, 4:6 toxic effects, 4:5 acute toxicity, 4:5 carcinogenesis, 4:5 chronic and subchronic toxicity, 4:5 experimental studies, 4:5 human experience, 4:6 reproductive and developmental, 4:5 Octan-1-ol. See 1-Octanol 2-Octanol, 4:10 chemical and physical properties, 4:10 production and use, 4:10 toxic effects. 4:11 chronic and subchronic toxicity, 4:11 experimental studies, 4:11 3-Octanol, 4:11 chemical and physical properties, 4:11 production and use, 4:11 toxic effects. 4:11 acute toxicity, 4:11 clinical cases, 4:11 experimental studies, 4:11 human experience, 4:11 n-octanol. See 1-Octanol

Octanols, 4:5 2-Octanone. 3:871 chemical and physical properties, 3:871 environmental impact, studies, 3:872-873 exposure assessment, 3:872 guidelines of exposure, 3:872 production and use, 3:871-872 toxic effects, 3:872 experimental studies, 3:872 human experience, 3:872 3-Octanone, 3:873 chemical and physical properties, 3:873 environmental impact, studies, 3:874 exposure assessment, 3:873 guidelines of exposure, 3:874 production and use, 3:873 toxic effects, 3:873 experimental studies, 3:873-874 human experience, 3:874 Octenes, 2:63 Octogen. See Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine n-Octoic acid. See Caprylic acid Octyl adipate. See n-Dioctyl adipate 1-Octyl alcohol. See 1-Octanol n-Octyl alcohol. See 1-Octanol sec-Octyl alcohol. See 2-Octanol Octylaldehyde. See 2-Ethylhexylaldehyde Octylamine. See 1-Octylamine 1-Octylamine, 2:473 guidelines of exposure, 2:473 production and use, 2:473 toxic effects, 2:473 2-Octylamine, 2:473 guidelines of exposure, 2:473 production and use, 2:473 toxic effects, 2:473 3-Octylamine. See 2-Ethylhexylamine n-Octylamine. See 1-Octylamine sec-Octylamine. See 2-Octylamine Octyl azelate. See Di(2-ethylhexyl) azelate Octylene glycol. See 2-Ethyl-1,3-hexanediol Octylester kyseliny gallove [Czech]. See Octyl gallate n-Octyl ester of 3,4,5-trihydroxybenzoic acid. See Octyl gallate Octyl gallate, 4:207 chemical and physical properties, 4:208 production and use, 4:208 standards, regulations, or guidelines of exposure, 4:208 toxic effects, 4:208 acute toxicity, 4:208 chronic and subchronic toxicity, 4:208 clinical cases, 4:208 epidemiology studies, 4:208 experimental studies, 4:208 genetic and related cellular effects studies, 4:208 neurological, pulmonary, skin sensitization, 4:208 pharmacokinetics, metabolism, and mechanisms, 4:208 reproductive and developmental, 4:208 n-Octyl gallate. See Octyl gallate n-Octylic acid. See Caprylic acid

n-Octyl mercaptan, **4**:1050 animal and human studies, 4:1050 chemical and physical properties, 4:1050 tert-Octyl mercaptan, 4:1050 animal and human studies, 4:1050 chemical and physical properties, 4:1050 Octyl sebacate. See Di(2-ethylhexyl) sebacate Octyl 3,4,5-trihydroxybenzoate. See Octyl gallate ODA. See 4-Aminophenyl ether; 4,4'-Oxydianiline ODIX. See Glyoxal Oenanthal. See n-Heptaldehyde Oenanthic acid. See Heptanoic acid Oenanthylic acid. See Heptanoic acid O'Flaherty model, 1:400 lead exchange, compartments and pathways, 1:400f 8-OHdG formation, 1:533 Oil mist. See White oils Oil mist, mineral, severely refined. See White oils Oil mist, refined mineral. See White oils Oil of bitter almond. See Benzaldehyde Oil of turpentine. See Turpentine Oil of turpentine, distillation residue. See Turpentine Oil of wintergreen. See Salicylates Oil, petroleum. See White oils Oil pitch. See Coal tar pitch Oil Yellow. See 4-Dimethylaminoazobenzene Oil Yellow 20. See 4-Dimethylaminoazobenzene Oil Yellow 2625. See 4-Dimethylaminoazobenzene Oil Yellow GG. See 4-Dimethylaminoazobenzene Okenite. See Wollastonite Olamine. See Monoethanolamine Olefiant gas. See Ethene Olefin, 4:891 Olefin resins, 4:885 Olefins. See Alkenes Oleic acid, 3:557 chemical and physical properties, 3:557 guidelines of exposure, 3:559-560 production and use, 3:557 toxic effects experimental studies, 3:557-559 human experience, 3:559 trans-Oleic acid. See Elaidic acid Oleic acid, ethyl ester. See Ethyl oleate Oleoate. See Oleic acid Olfactory uptake into brain, 1:40, 1:41 Oliguria, 1:221 Olpisan. See Pentachloronitrobenzene Omal. See 2,4,6-Trichlorophenol Omega-aminoundecanoic acid. See 11-Aminoundecanoic acid o/m/p-Diethylbenzene, 2:195 chemical and physical properties, 2:196 exposure assessment, 2:196 guidelines of exposure, 2:199 production and use, 2:196 toxic effects, 2:196-199 o/m/p-Diisopropylbenzene, 2:200 environmental impact, studies, 2:203 exposure assessment, 2:201

exposure guidelines, 2:203 physical and chemical properties, 2:200-201 production and use, 2:201 toxic effects, 2:201-203 o/m/p-Isopropyltoluene, 2:200 o/m/p-Methylethylbenzene, 2:195 ONB. See 2-Nitrobiphenyl ONCB. See o-Chloronitrobenzene ONP. See 2-Nitrophenol ONT. See 2-Nitrotoluene Opal. See Amorphous silica OPP 057701. See Malathion OPP Code 009801. See Bensulide OPP Code 034401. See Naled OPP Code 035001. See Dimethoate OPP Code 035201. See Dicrotophos OPP Code 036501. See Coumaphos OPP Code 041101. See Ethoprop OPP Code 053501. See Methyl parathion OPP Code 057201. See Phorate OPP Code 057801. See Diazinon OPP Code 057901. See Trichlorfon OPP Code 058001. See Azinphos-methyl OPP Code 058702. See Oxydemeton methyl OPP Code 059001. See Temephos OPP Code 059101. See Chlorpyrifos OPP Code 059201. See Phosmet OPP Code 074801. See Tribufos OPP Code 083701. See Tetrachlorvinphos OPP Code 084001. See Dichlorvos OPP Code 100301. See Methidathion OPP Code 103301. See Acephate OPP Code 105001. See Terbufos OPP Code 111401. See Profenofos OPP Code 113601. See Propetamphos OPP Code 129086. See Phostebupirim OPP Code 129006, O,O-Diethyl O-(1,2,2,2-tetrchloroethyl) phosphorothioate. See Chlorethoxyphos OPSB. See Polypropylene glycol butyl ethers Optical radiation, 6:170 artificial sources of, 6:174 biological effects of, 6:172 characteristics of sources, 6:172 epidemiology studies, 6:193-196 exposure assessment, 6:176-177 background, 6:177 community methods, 6:178 workplace methods, 6:177-178 generation of, 6:170-171 interaction with matter, 6:171 physical properties, 6:173 quantities and units of, 6:171-172 sources of exposure, 6:174 electric arcs. 6:174 fluorescent lamps, 6:175 gas discharge lamps, 6:174-175 incandescent sources, 6:174 lasers, 6:175 light-emitting diode (solid-state) lamps, 6:175

Optical radiation (Continued) standards, regulations, or guidelines of exposure, 6:196-200 studies on environmental impact, 6:200 toxic effects, 6:178 action spectra, 6:178-179 acute toxicity, 6:179-181 carcinogenesis, 6:192-193 chronic and subchronic toxicity, 6:181-182, 6:190-192 clinical cases and studies, 6:186-189 dermal effects, 6:189-190 experimental studies, 6:179 genetic and related cellular effects studies, 6:183-185 human experience, 6:185-186 mechanisms, 6:182-183, 6:192 warning properties, 6:173 Orange Base Ciba II. See 2-Nitroaniline; o-Nitroaniline Orange Base Irga 1. See 3-Nitroaniline; m-Nitroaniline Orange Base Irga II. See 2-Nitroaniline; o-Nitroaniline Orange GC Base. See 3-Chloroaniline; m-Chloroaniline Orange GRS Salt. See 2-Nitroaniline; o-Nitroaniline Orange Salt Ciba II. See 2-Nitroaniline; o-Nitroaniline Orange Salt Irga II. See 2-Nitroaniline; o-Nitroaniline Organic compounds, of mercury, 1:222 Organic Glass E 2. See Polymethyl methacrylate Organic lead, 1:413-415 acute toxicity, 1:414 biomonitoring/biomarkers, 1:414 carcinogenesis, 1:415 chemical and physical properties, 1:413 chronic and subchronic toxicity, 1:414 clinical cases, 1:414-415 exposure assessment, 1:414 pharmacokinetics, metabolism, and mechanisms, 1:415 production and use, 1:414 standards, regulations, or guidelines of exposure, 1:415 therapy for organic lead exposure, 1:415 toxic effects, 1:414-415 Organic silicon esters, 4:400 Organic solvents, acute and chronic effects on nervous system, 1:58 Organic sulfur compounds, 4:1042 physical and chemical properties of, 4:1040t-1041t Organochlorine insecticides acute toxicity of, 3:430t Organogermanium compounds, 1:355 Organometallic complexes, 1:771 Organophosphorus compounds, 1:61 acute toxicity, 1:60 Organophosphorus pesticide-induced delayed neurotoxicity (OPIDN), 1:61 Organophosphorus pesticides, 4:1077 acute toxicity categories, 4:1090t biomonitoring paraoxonase (PON1), 4:1089 red blood cell acetylcholinesterase, 4:1087-1088 urinary alkyl phosphates, 4:1088-1089 cholinergic syndrome, 4:1079 mechanism of action, 4:1079-1081 symptoms, 4:1081

treatment, 4:1081-1082 exposure assessment community, 4:1086-1087 worker, 4:1086 intermediate syndrome, 4:1082 organophosphate-induced delayed neuropathy, 4:1082 organophosphate pesticide regulation pesticide registration, 4:1089-1091 Worker Protection Standard (WPS), 4:1091-1092 production and use, 4:1077-1079 systemic effects, 4:1082 cancer, 4:1083 nervous system effects, 4:1083-1085 neurodevelopmental effects, 4:1085-1086 reproductive/developmental, 4:1085 respiratory effects, 4:1083 Organosiloxane silicone, all. See Silicone Organosulfur compounds, antiproliferative effects on cancer cells, 1:865 Organotin antifouling agents, uses, 1:364 Organotin compounds, 1:363 LD⁵⁰ for, 1:367t Organ system impairment individual disability, 5:91f Orizon. See Polyethylene Orphenol. See Sodium o-phenylphenate (SOPP) Orsin. See 1,4-Phenylenediamine Orthamine. See 1,2-Phenylenediamine; o-Phenylenediamine Ortho 4355. See Naled Ortho 12420. See Acephate Orthoacetic acid, triethyl ester. See Triethyl orthoacetate Orthohydroxydiphenyl. See o-Phenylphenol (OPP) Orthopropionic acid ethyl ester. See Triethyl orthopropionate Orthopropionic acid, triethyl ester. See Triethyl orthopropionate Orthoxenol. See o-Phenylphenol (OPP) os 1897. See 1,2-Dibromo-3-chloropropane OSHA. See Occupational Safety and Health Administration OSHA PEL, 1:28, 1:201t, 1:312, 1:339, 1:643, 1:671t, 1:710t, 1:859, 1:910, 1:921, 1:1058t, 1:1072 industrial sector, 5:184t, 5:185t OSHA's benzene standard, 5:31 **OSHAWorkplace** Standards IARC and NTP classifications, 6:471t-475t Osmium carcinogenesis, 1:706 chemical and physical properties, 1:705-706 odor and warning properties, 1:706 exposure assessment in air, 1:706 genetic and related cellular effect studies, 1:706 pharmacokinetics, metabolism, and mechanisms, 1:706 production and use, 1:706 reproductive and developmental effects, 1:706 standards, regulations, or guidelines of exposure, 1:706 studies on environmental impact, 1:706-707 toxic effects epidemiology studies, 1:706 experimental studies, 1:706 human experience, 1:706

Osmium tetroxide acute toxicity, 1:708, 1:709 carcinogenesis, 1:708, 1:710 chemical and physical properties odor and warning properties, 1:707 chronic and subchronic toxicity, 1:708, 1:709 clinical cases, 1:709-710 exposure assessment in air, 1:707 exposure limits, 1:710t genetic and related cellular effect studies, 1:708-709, 1:710 pharmacokinetics, metabolism, and mechanisms, 1:708, 1:709 production and use, 1:707 reproductive and developmental effects, 1:708, 1:709 standards, regulations, or guidelines of exposure, 1:710 toxic effects, 1:707-710 epidemiology studies, 1:710 experimental studies, 1:708-709 human experience, 1:709-710 Osmoplastic-D. See Creosote Osteobond Surgican Bone Cement. See Polymethyl methacrylate Osteoclast-like cell formation, 1:393 Osteolysis, 1:283 Osteomalacia, 1:192, 1:241, 1:242 Otoacoustic emissions (OAE), 6:88 Ototoxicity, 1:287 Owispol gf. See Polystyrene 7-Oxabicyclo(4.1.0)heptane, 3-vinyl-. See Vinylcyclohexene monoxide 6-Oxabicyclo[3.1.0]hexane, 2,2'-oxybis-. See Bis(2,3-epoxycyclopentyl) ether Oxacyclopropane. See Ethylene oxide OXAL. See Glyoxal Oxalaldehyde. See Glyoxal Oxalate d'ethyle [French]. See Diethyl oxalate Oxalato de etilo [Spanish]. See Diethyl oxalate Oxalic acid, 3:508 chemical and physical properties, 3:508 exposure assessment, 3:508 guidelines of exposure, 3:512 production and use, 3:508 toxic effects experimental studies, 3:508-511 human experience, 3:511-512 Oxalic acid, dibutyl ester. See n-Dibutyl oxalate Oxalic acid, diethyl ester. See Diethyl oxalate Oxalic acid, dimethyl ester. See Dimethyl oxalate Oxalic acid solution. See Oxalic acid Oxalic ether; diethylester. See Diethyl oxalate Oxane. See Ethylene oxide 3-Oxapentane-1,5-diol. See Diethylene glycol 3-Oxa-1,5-pentanediol. See Diethylene glycol 3-Oxapentane-1,5-diol. See Diethylene glycol 3-Oxa-1,5-pentanediol. See Diethylene glycol Oxidation Base 10. See 1,4-Phenylenediamine Oxidation Base 22. See 2-Nitro-1,4-phenylenediamine Oxidative DNA modifications, 6:184 Oxidative stress, 1:331, 1:405, 1:786

Oxidoethane. See Ethylene oxide Oxirane. See Diglycidyl ether; Ethylene oxide Oxiranecarboxaldehyde. See Glycidaldehyde Oxiranemethanol. See Glycidol Oxiranylmethanol. See Glycidol 3-Oxiranyl-7-oxabicyclo(4.1.0) heptane. See Vinylcyclohexene dioxide Oxiric acid. See Oxalic acid 2-Oxobutane. See Methyl ethyl ketone 3-Oxobutanoic acid ethyl ester. See Ethyl acetoacetate 3-Oxobutanoic acid methyl ester. See Methyl acetoacetate 3-Oxobutyraldehyde dimethylacetal. See Ketoacetal α -Oxodiphenylmethane. See Benzophenone α -Oxoditane. See Benzophenone Oxomethane. See Formaldehyde Oxomethylene. See Formaldehyde 2-Oxo-, methyl ester. See Methyl pyruvate 5-Oxononane. See 5-Nonanone 2-Oxooctane. See 2-Octanone Oxy-5. See Dibenzoyl peroxide Oxy 10. See Dibenzoyl peroxide Oxy Acid Black Base. See 4-Aminodiphenylamine; *p*-Aminodiphenylamine Oxybenzene. See Phenol p-Oxybenzoesaureethylester [German]. See Ethyl paraben p-Oxybenzoesauremethylester [German]. See Methyl Paraben p-Oxybenzoesaurepropylester [German]. See Propyl paraben Oxybis (trimethylsilane). See Hexamethyl disiloxane Oxybis(4-aminobenzene). See 4-Aminophenyl ether; 4,4'-Oxydianiline 4,4'-Oxybisbenzenamine. See 4-Aminophenyl ether; 4,4'-Oxydianiline 2,2'-[Oxybis (methylene)]bisoxirane. See Diglycidyl ether 1,1'-Oxy-bischlorobenzene. See Chlorinated diphenyl oxide 2,2'-(Oxybis(2,1-ethanediyloxy))bisethanol. See Polyoxyethylene (POE) 1,1-[Oxybis(2,1-ethanediyloxy)bis]ethene. See Diethylene glycol divinyl ether 2,2'-Oxybis-ethanol. See Diethylene glycol 2,2'-Oxybisethanol dinitrate. See Diethylene glycol dinitrate 2,2'-Oxybis-ethanol monomethyl ether. See Diethylene glycol monomethyl ether 1,1'-Oxybis(2-methoxyethane). See Diethylene glycol dimethyl ether 2,2'-(Oxybis(methylene))bis-. See Diglycidyl ether 1,1'-Oxybis(2,3,4,5,6-pentabromobenzene). See Decabromodiphenyl oxide 1,1'-Oxybispropane. See Propyl ether 2,2'-Oxybispropane. See Diisopropyl ether Oxybis propanol. See Dipropylene glycol Oxy DBCP. See 1,2-Dibromo-3-chloropropane Oxydemeton methyl, 4:1170 chemical and physical properties, 4:1170 exposure assessment, 4:1171 guidelines of exposure, 4:1175 properties and use, 4:1170-1171 toxic effects experimental studies, 4:1171-1174 human experience, 4:1174-1175

Oxydianiline. See 4-Aminophenyl ether; 4,4'-Oxydianiline 4,4'-Oxydianiline, 2:593. See also 4-Aminophenyl ether chemical and physical properties, 2:593 guidelines of exposure, 2:593 production and use, 2:593 toxic effects, 2:593 2,2'-Oxydiethanol. See Diethylene glycol Oxydiethylene acrylate. See Diethylene glycol diacrylate Oxydiethylene diacrylate. See Diethylene glycol diacrylate 4,4'-Oxydiphenylamine. See 4-Aminophenyl ether; 4,4'-Oxydianiline Oxydi-p-phenylenediamine. See 4-Aminophenyl ether; 4,4'-Oxydianiline Oxyfume. See Ethylene oxide Oxyfume 12. See Ethylene oxide Oxygen, 1:981 chemical and physical properties, 1:981 exposure assessment, 1:981-982 effects of hypoxia, 1:982-983, 1:982t mountain sickness, 1:983-984, 1:983t oxygen deficiency, 1:982 eye injuries, 1:993-994 hyperbaric oxygen exposures, 1:991-993 hyperoxia, 1:991 production and use, 1:981 toxic effects, 1:984-985 agents increase oxygen toxicity, 1:988t carcinogenesis, 1:993 experimental studies, 1:986-988 injury mechanisms, 1:985-986 prevention of oxidative injury, 1:988-991, 1:993 Oxygen-containing chlorine salts, acute toxicity values for, 1:1083t Oxygen enhancement ratio (OER), 1:8 Oxygen-enriched air, 6:304 Oxygen-flash-cyclone electrothermic process, 1:362 Oxygen toxicity, 6:304 central nervous system oxygen toxicity, 6:304 whole-body oxygen toxicity, 6:304, 6:305 Oxygen transport, 6:316 Oxyhemoglobin dissociation curves for whole blood, 6:316f Oxymethylene. See Formaldehyde m-Oxytoluene. See m-Cresol o-Oxytoluene. See o-Cresol Ozone, 1:994 analyzers, 1:1001 chemical and physical properties, 1:994 exposure assessment, 1:994-996 pollution standard index, 1:1000t production and use, 1:994 standards, regulation, or guidelines of exposure, 1:999-1000 measurement, 1:1001 personal protection, 1:1000 treatment, 1:1000-1001 toxic effects, 1:996 carcinogenesis, 1:998-999 chronic and subchronic toxicity, 1:998 effects in asthmatics, 1:997-998

epidemiology studie, 1:998 experimental studies and human experience, 1:996-997 tolerance, 1:997 Ozone-depleting potential (ODP), 3:360t P300. See Polyacrylamide PADGE. See Phthalic acid diglycidyl ester Painters naphtha. See VM&P Naphtha Palacos. See Polymethyl methacrylate Paladon. See Methyl methacrylate Palladium acute effects, 1:701t characteristic feature, 1:699 concentrations, 1:703t irritating and cytotoxic effects, 1:704t LD₅₀ values, **1:**701t physical and chemical properties, 1:699t subchronic and chronic effects, 1:702t Palladium(II) chloride, 1:698-699 Pallidal index, 1:615 Palmitic acid, 3:504 chemical and physical properties, 3:504 exposure assessment, 3:504 guidelines of exposure, 3:505 production and use, 3:504 toxic effects, 3:504 experimental studies, 3:504-505 human experience, 3:505 Palmityl alcohol. See C16 Alcohols Palygorskite. See Attapulgite p-Aminopyridine. See Aminopyridines Panosorb. See Sorbic acid PanOxyl. See Dibenzoyl peroxide PAP. See 4-Aminophenol PAR. See 4-(2-Pyridylazo) resorcinol Paraacetaldehyde. See Paraldehyde Parabens, 4:147 physical and chemical properties, 4:148 toxicity of, 4:152 Paracellin-1 (PCLN1), 1:147 Paracetaldehyde. See Paraldehyde Parachoc. See Paraffins (waxes) Paradone Olive Green B. See 2-Aminophenol; o-Aminophenol Paraffin hydrocarbons, 2:1 Paraffin jelly. See Petrolatum Paraffin oil (class). See White oils Paraffin oils. See Petrolatum; White oils Paraffins (waxes), 2:1, 5:353 chemical and physical properties, 5:353 exposure assessment, 5:353 guidelines of exposure, 5:353 production and use. 5:353 toxic effects, 5:353 Paraffin wax (petroleum). See Paraffins (waxes) Paraffin waxes. See Paraffins (waxes) Paraffin wax fume. See Paraffins (waxes) Paraffin wax, granular. See Paraffins (waxes)

CUMULATIVE SUBJECT INDEX, VOLUMES 1-6 663

Paraformaldehyde, 3:678 chemical and physical properties, 3:678 production and use, 3:678 toxic effects, 3:678 Paraglas. See Polymethyl methacrylate PARAL. See Paraldehyde Paraldehyde, 3:678 chemical and physical properties, 3:678 environmental impact, studies, 3:679-680 guidelines of exposure, 3:679 production and use, 3:678-679 toxic effects, 3:679 Paramidophenol. See 4-Aminophenol Paranaphthalene, p-naphthalene. See Anthracene Paranol. See 4-Aminophenol; p-Aminophenol Paraplex P 543. See Polymethyl methacrylate Parathion-methyl. See Methyl parathion Parathyroid hormone (PTH), 1:393 Parkinson's disease, 1:36, 1:612 Parlodion. See Cellulose nitrate Parlodion strips. See Cellulose nitrate Paroleine. See White oils Particle radiations, 1:2, 1:3, 1:10 Passive cutaneous anaphylaxis test (PCA), 1:717, 1:719 PAS staine photomicrograph of, 5:515f Patronite, 1:513 PB. See Polybutadiene PBG. See Porphobilinogen PBN. See N-Phenyl-2-naphthylamine PBNA. See N-Phenyl-2-naphthylamine PBO. See Polybutadiene PBTK model 1,3-Butadiene (BD), 6:481 PC Code 108102. See Pirimiphos methyl PCE. See Tetrachloroethylene PCEhloorethyleen, per. See Tetrachloroethylene PCEhlor. See Tetrachloroethylene PCEhloraethylen, per. See Tetrachloroethylene PCEhlorethylene. See Tetrachloroethylene PCEhlorethylene, per. See Tetrachloroethylene PCElene. See Tetrachloroethylene PCEloroetilene. See Tetrachloroethylene PCHO. See Paraldehyde PCNB. See Pentachloronitrobenzene PCON. See 4-Chloro-2-nitroaniline PCONA. See 4-Chloro-2-nitroaniline PCP-sodium. See Sodium pentachlorophenate PCTFE. See Polychlorotrifluoroethylene PD 185. See Stearic acid 2-n-p-PDA. See 2-Nitro-1,4-phenylenediamine PDC. See Propylene dichloride 1,2-PDC. See Propylene carbonate PE. See Polyethylene PE acetate. See Propylene glycol monoethyl ether acetate Peak expiratory flow (PEF), 1:179 Peak expiratory flow rates (PEFR), 6:362 Pearl ash, 1:936 Pearl stearic. See Stearic acid

Pear oil. See n-Amyl acetate; Isoamyl acetate Pearson correlation coefficient, 1:624 Peculiar pulmonary reactions, 1:648 PEL. See Permissible exposure limit Pelagal EG. See 3-Aminophenol Pelagol D. See 1,4-Phenylenediamine; p-Phenylenediamine Pelagol DR. See 1,4-Phenylenediamine; p-Phenylenediamine Pelagol 3 GA. See 2-Aminophenol Pelagol 3GA. See o-Aminophenol Pelagol Grey D. See 1,4-Phenylenediamine Pelagol Grey GG. See 2-Aminophenol; o-Aminophenol Pelagol Grey J. See 2,4-Toluenediamine Pelagol Grey P Base. See 4-Aminophenol Pelagol J. See 2,4-Toluenediamine Pelagol P Base. See 4-Aminophenol Pelargic acid. See Nonanoic acid Pelargonic acid. See Nonanoic acid Pelargonic alcohol. See 1-Nonanol Pelaspan 333. See Polystyrene Pelletizing, 1:639 Peltol BR. See 4-Aminodiphenylamine; p-Aminodiphenylamine Peltol D. See 1,4-Phenylenediamine Pelton BR II. See 4-Aminodiphenylamine Penchlorol. See Pentachlorophenol Peneteck. See White oils Penreco. See White oils 1,4,7,10,13-Pentaazatridecane. See Tetraethylenepentamine Pentaborane, 1:920 chemical and physical properties, 1:921 exposure assessment, 1:921 production and use, 1:921 standards, regulations, or guidelines of exposure, 1:921 toxic effects, 1:921 experimental studies, 1:921 human experience, 1:921 Pentabromohydroxybenzene. See Pentabromophenol Pentabromophenol, 2:316 chemical and physical properties, 2:317 environmental impact, studies, 2:317 guidelines of exposure, 2:317 production and use, 2:317 toxic effects, 2:317 Pentabromophenyl ether. See Decabromodiphenyl oxide Pent-acetate 28. See n-Amyl acetate Pentachlorobenzene chemical and physical properties, 3:343 guidelines of exposure, 3:344 production and use, 3:343 toxic effects experimental studies, 3:343-344 human experience, 3:344 Pentachloroethane, 3:87 chemical and physical properties, 3:87 exposure assessment, 3:87 guidelines of exposure, 3:89 production and use, 3:87 toxic effects, 3:87 experimental studies, 3:88-89 human experience, 3:89

Pentachlorofenol. See Pentachlorophenol Pentachlorofenolo. See Pentachlorophenol Pentachloronitrobenzene, 2:531, 2:665 chemical and physical properties, 2:532, 2:665 exposure assessment, 2:666 guidelines of exposure, 2:532, 2:666 production and use, 2:532, 2:665-666 toxic effects, 2:532, 2:666 Pentachlorophenate. See Pentachlorophenol Pentachlorophenol, 2:287-288 Penta chlorophenol environmental studies conducted, 2:300 2,3,4,5,6-Pentachlorophenol. See Pentachlorophenol Pentachlorophenol sodium salt. See Sodium pentachlorophenate Pentachlorophenoxy sodium. See Sodium pentachlorophenate Pentachlorphenol. See Pentachlorophenol Pentadecane, 2:47 chemical and physical properties, 2:47 exposure assessment, 2:47 guidelines of exposure, 2:48 production and use, 2:47 toxic effects. 2:47 n-Pentadecane. See Pentadecane 1-Pentadecanecarboxylic acid. See Palmitic acid Pentadecane-d32. See Pentadecane 1,3-Pentadien-5-al. See 2,4-Pentadienal 2,4-Pentadienal, 5:153 chemical and physical properties, 5:153 exposure assessment, 5:154 guidelines of exposure, 5:154 human experience, 5:154 production and use, 5:153 toxic effects, 5:154 1,3-Pentadiene-1-carboxylic acid. See Sorbic acid Pentadione. See 2.4-Pentanedione 2,4-Pentadione. See 2,4-Pentanedione Pentaerithrityl tetranitrate. See Pentaerythritol tetranitrate Pentaerythrite tetranitrate. See Pentaerythritol tetranitrate Pentaerythritol tetranitrate, 2:387 chemical and physical properties, 2:388 exposure assessment, 2:388 guidelines of exposure, 2:388 production and use, 2:388 toxic effects, 2:388 Pentafluoroethane, 3:400 chemical and physical properties, 3:401 environmental impact, studies, 3:402 exposure assessment, 3:401 guidelines of exposure, 3:402 production and use, 3:401 toxic effects experimental studies, 3:401 human experience, 3:402 1.1.1.2.2-Pentafluoroethane. See Pentafluoroethane 1,1,1,3,3-Pentafluoropropane, 3:412 chemical and physical properties, 3:412 environmental impact, studies, 3:414 exposure assessment, 3:412 guidelines of exposure, 3:413

production and use, 3:412 toxic effects experimental studies, 3:412-413 human experience, 3:413 1,1,2,3,3-Pentafluoropropane, 3:411 chemical and physical properties, 3:411 environmental impact, studies, 3:412 exposure assessment, 3:411 guidelines of exposure, 3:411 production and use, 3:411 toxic effects experimental studies, 3:411 Pentagen. See Pentachloronitrobenzene Pentamethyldiamine. See Pentamethylenediamine Pentamethylenediamine, 2:486 chemical and physical properties, 2:486 guidelines of exposure, 2:486 production and use, 2:486 toxic effects, 2:486 Pentamethylene glycol. See 5-Pentanediol n-Pentanal. See n-Valeraldehyde 1-Pentanamine. See n-Amylamine Pentan-1-amine. See n-Amylamine Pentan-2,4-dione. See 2,4-Pentanedione Pentane potential occupational exposures, 5:340t 1-Pentane. See 2-Methylbutane *n*-Pentane biomonitoring/biomarkers, 2:17 chemical and physical properties, 2:17 exposure assessment, 2:17 exposure guidelines, 2:19 production and use, 2:17 toxic effects, 2:18 toxicity, 2:18 tert-Pentane. See 2,2-Dimethylpropane 1-Pentanecarboxylic acid. See Caproic acid 2-Pentanecarboxylic acid. See 2-Methylvaleric acid 3-Pentanecarboxylic acid. See 2-Ethylbutyric acid Pentanedial. See Glutaraldehyde 1,5-Pentanedial. See Glutaraldehyde Pentane-1,5-dial. See Glutaraldehyde 1,5-Pentanediamine. See Pentamethylenediamine 1,5-Pentanedicarboxylic acid. See Pimelic acid Pentanedioic acid diethyl ester. See Glutarates 5-Pentanediol, 4:625 chemical and physical properties, 4:626 production and use. 4:626 toxic effects, 4:626 Pentanedione. See 2,4-Pentanedione 1,5-Pentanedione. See Glutaraldehyde 2,3-Pentanedione, 5:154 chemical and physical properties, 5:154, 5:154t exposure assessment, 5:155 guidelines of exposure, 5:156 human experience, 5:156 production and use, 5:155 toxic effects, 5:155-156 Pentane-2,3-dione. See 2,3-Pentanedione

2,4-Pentanedione, 3:787 chemical and physical properties, 3:787 environmental impact, studies, 3:790 exposure assessment, 3:787 guidelines of exposure, 3:790 production and use, 3:787 toxic effects experimental studies, 3:787-790 human experience, 3:790 2,4-Pentanedione peroxide. See 3,5-Dimethyl-3,5-dihydroxy-1,2dioxolone Pentanoic acid. See Valeric acid Pentanoic acid, 1,2-diethanylbis(oxy2,1-ethane) diyl ester. See Triethylene glycol divalerate 1-Pentanol, 3:956. See 1-Pentanol Pentanol-1. See 1-Pentanol 1-Pentanol chemical and physical properties, 3:956 exposure assessment, 3:956 guidelines of exposure, 3:957 production and use, 3:956 toxic effects, 3:956 experimental studies, 3:956-957 human experience, 3:957 Pentan-1-ol. See 1-Pentanol 2-Pentanol, 3:960 Pentan-2-ol. See 2-Pentanol 3-Pentanol. 3:960 Pentanol-3. See 3-Pentanol Pentan-3-ol. See 3-Pentanol DL-2-Pentanol. See 2-Pentanol n-Pentanol. See 1-Pentanol n-Pentan-1-ol. See 1-Pentanol tert-Pentanol. See tert-Amyl alcohol 3-Pentanol formate. See n-Amyl formate 2-Pentanone. See Methyl n-propyl ketone 3,6,9,12,15-Pentaoxaheptadec-1-ene. See Tetraethylene glycol monovinylethyl ether 3,6,9,12,15-Pentaoxyheptadecane. See Tetraethylene glycol diethyl ether Pentasiloxane, dodecamethyl-. See Dodecamethylpentasiloxane Pentasol. See 1-Pentanol 2-Pentenal chemical and physical properties, 5:156, 5:156t exposure assessment, 5:156 guidelines of exposure, 5:157 human experience, 5:157 production and use, 5:156 toxic effects, 5:156-157 Pent-2-enal. See 2-Pentenal 2-Penten-1-al. See 2-Pentenal 1-Pentene chemical and physical properties, 2:60-61 exposure assessment, 2:61 guidelines of exposure, 2:61 production and use, 2:61 toxic effects, 2:61 Pent-1-ene. See 1-Pentene Pentenoic acid, 3:545

chemical and physical properties, 3:545 guidelines of exposure, 3:546 production and use, 3:545 toxic effects experimental studies, 3:545-546 human experience, 3:546 4-Pentenoic acid. See Pentenoic acid Pent-4-enoic acid. See Pentenoic acid Pentetic acid. See Diethylenetriaminepentaacetic acid Penthrit. See Pentaerythritol tetranitrate Pentiformic acid. See Caproic acid R-Pentine. See 1,3-Cyclopentadiene 1-Pentol. See 1-Pentanol Pentole. See 1,3-Cyclopentadiene Pentyl acetate. See n-Amyl acetate 1-Pentyl acetate. See n-Amyl acetate n-Pentyl acetate. See n-Amyl acetate Pentyl alcohol. See 1-Pentanol n-Pentyl alcohol. See 1-Pentanol tert-Pentyl alcohol. See tert-Amyl alcohol Pentylamine. See n-Amylamine 1-Pentylamine. See n-Amylamine Pentyl carbinol. See 1-Hexanol Pentylene. See 1-Pentene 1,5-Pentylene glycol. See 5-Pentanediol 2-Pentyl ester. See Peroxyhexanoic acid n-Pentyl ethanoate. See n-Amyl acetate Pentyl formate. See n-Amyl formate n-Pentyl formate. See n-Amyl formate Pentylformic acid. See Caproic acid Pentyl 2-hydroxybenzoate. See Amyl salicylate n-Pentyl mercaptan, 4:1048 animal and human studies, 4:1049 chemical and physical properties, 4:1048-1049 exposure assessment, regulations, and standards, 4:1049 production and use, 4:1049 n-Pentyl methanoate. See n-Amyl formate 1-Pentyl nitrate. See Amyl nitrate N-Pentyl-1-pentanamine. See Di-n-amylamine Pentylpentylamine. See Di-n-amylamine Pentyl salicylate. See Amyl salicylate Pentyltriethoxysilane. See Amyltriethoxy silane 3-Pentyn-2-one, 3:784 chemical and physical properties, 3:784 environmental impact, studies, 3:785 exposure assessment, 3:784 production and use, 3:784 toxic effects experimental studies, 3:784-785 human experience, 3:785 Penwar. See Pentachlorophenol Peptide derivatives, enzymes for, 1:648 PER. See Tetrachloroethylene Peracetic acid. See Peroxyacetic acid Peracetic acid solution. See Peroxyacetic acid Perbenzoic acid. 4:551 chemical and physical properties, 4:551 exposure assessment, 4:551 toxic effects, 4:551-552

Perchlorobenzene. See Hexachlorobenzene Perchlorobutadiene. See Hexachlorobutadiene Perchloroethane. See Hexachloroethane Perchloroethylene. See Tetrachloroethylene Perchloromethane. See Carbon tetrachloride Perchloromethyl mercaptan, 4:1057 animal and human studies, 4:1058 chemical and physical properties, 4:1057-1058 Perfecta. See White oils Perfluorinated compounds (PFCs), 5:35 Perfluoroalkoxy copolymer, 4:911 chemical and physical properties, 4:912 production and use, 4:912 Perfluoroalkylvinylether polymer. See Perfluoroalkoxy copolymer Performance and health, effects of cold on, 6:16 cold injuries, 6:18 cold-associated injuries, 6:19-20 frostbite, 6:18-19 hypothermia, 6:19 health effects, 6:20 morbidity in cold, 6:22-24 mortality, 6:22 musculoskeletal disorders, 6:24 respiratory diseases, 6:24 symptoms in cold, 6:20-22 performance, 6:16 cognitive performance, 6:17-18 physical performance, 6:16-17 Perhydrodiphenylamine. See Dicyclohexylamine Perhydronaphthalene. See Decalin Peridex-la. See Pentaerythritol tetranitrate Periethylenenaphthalene. See Acenaphthene Perinatal asphyxia, 1:958 Periodates, 1:1095 Peripheral blood micronucleus assay, 2:769 Peripheral nervous system, 1:406 Peripheral neuropathy, 1:52-53 Perityl. See Pentaerythritol tetranitrate Perlite, 5:198 chemical and physical properties, 5:198 exposure assessment, 5:198 guidelines of exposure, 5:198 production and use, 5:198 Perlon. See Nylon 6 Permissible exposure limits (PELs), 1:372, 1:385, 1:490, 2:726, 5:6, 5:90, 6:470 Peroxidation radical, 1:6 Peroxyacetic acid, 4:586 chemical and physical properties, 4:587 environmental: impact, studies, 4:588 exposure assessment, 4:587 production and use, 4:587 toxic effects, 4:587-588 Peroxyacids toxic properties, 4:587t Peroxycarbonic acid. See t-Butyl peroxyisopropylcarbonate Peroxydex. See Dibenzoyl peroxide Peroxydicarbonate. See Di-n-propyl peroxydicarbonate Peroxydicarbonates

toxic properties, 4:531t Peroxydicarbonic acid. See Di(2-ethylhexyl) peroxydicarbonate 1,1'-Peroxydicyclohexanol. See Di(1-hydroxycyclohexyl) peroxide Peroxydisuccinic acid. See Succinyl peroxide Peroxyesters, toxic properties, 4:549t Peroxyhexanoic acid, 4:553. See t-Butyl peroxy-3,5,5trimethylhexanoate chemical and physical properties, 4:553 exposure assessment, 4:553 production and use, 4:553 toxic effects, 4:553 Peroxymaleic acid. See t-Butyl monoperoxymaleate Peroxyneodecanoic acid. See t-Butyl peroxyneodecanoate Peroxynitrite-induced damage of surfactant, 1:971, 1:974 Persadox. See Dibenzoyl peroxide Persa-gel. See Dibenzoyl peroxide Persistent organic pollutants (POPs), 5:34 Personal protective equipment, 6:29 Person-environment fit, 6:363 Personnel transfer capsule (PTC), 6:288 Perspex. See Polymethyl methacrylate Pertite. See Picric acid Perylene, 5:417 chemical and physical properties, 5:417 exposure assessment, 5:417 guidelines of exposure, 5:417 production and use, 5:417 toxic effects, 5:417 α -Perylene. See Perylene Pesticides, 1:60 acute toxicity from acetylcholinesterase inhibition, 1:60-61 chronic toxicity from organophosphorus exposure, 1:61 effects on neurodevelopment, 1:61 organophosphorus and carbamate compounds, 1:60 organophosphorus-induced delayed neurotoxicity, 1:61 pyrethroids, 1:61-62 PET. See Polyethylene terephthalate PETN. See Pentaerythritol tetranitrate Petrogalar. See White oils Petrol. See Crude oil; Gasoline Petrolatum. 5:357 chemical and physical properties, 5:357 production and use, 5:357 Petrolatum, liquid. See White oils Petrolatum, white. See Petrolatum Petroleum. See Petroleum naphthas Petroleum asphalt. See Asphalt Petroleum, base oil. See Crude oil: Kerosene Petroleum benzine. See Petroleum ether Petroleum crude. See Crude oil Petroleum distillates, 5:337, 5:360. See also Petroleum ether catalytic, reformer fractionator residue, low-boiling, 5:360 clay-treated heavy naphthenic, 5:360 clay-treated light naphthenic, 5:360 fractionation of various high molecular weight, 5:361t heavy paraffinic, clay-treated, 5:360 hydrodesulfurized middle, 5:360 hydrotreated heavy mild naphthenic, 5:362

naphthenic, 5:360 paraffinic, 5:362 severe naphthenic, 5:362 hydrotreated light, 5:362 naphthenic, 5:362 paraffinic, 5:362 hydrotreated middle, 5:362 light catalytic cracked (light catalytic cycle oil), 5:362 refinery processes, flow chart, 5:338f toxic effects, 5:360 uses, 5:333t-334t U.S. occupational exposure limits and recommendations, 5:345t Petroleum distillates (naphtha). See Rubber solvent Petroleum distillate solvents, 5:335t Petroleum ether, 5:343. See VM&P Naphtha chemical and physical properties, 5:343 exposure assessment, 5:343 guidelines of exposure, 5:344 production and use, 5:343 toxic effects, 5:343-344 Petroleum fuel. See Kerosene Petroleum hydrocarbons. See White oils Petroleum jelly. See Petrolatum Petroleum naphtha. See Petroleum ether; Petroleum naphthas; Rubber solvent Petroleum naphthas, 5:342 chemical and physical properties, 5:342 exposure assessment, 5:343 guidelines of exposure, 5:343 production and use, 5:342-343 toxic effects, 5:343 Petroleum oil. See Crude oil Petroleum products, high-boiling, 5:338t Petroleum solvent. See Petroleum spirits Petroleum spirits, 5:346. See also Petroleum ether; VM&P Naphtha chemical and physical properties, 5:346 guidelines of exposure, 5:346 production and use, 5:346 toxic effects, 5:346 Petrothene lc 73. See Polyethylene PG 12. See Propylene glycol PGBE. See Propylene glycol mono-n-butyl ether PGDN. See 1,2-propanediol, dinitrate occupational exposure guidelines for exposure, 4:866t PGE. See Phenyl glycidyl ether PGTBE. See Propylene glycol mono-tertiary-butyl ether Phaldrone. See Chloral hydrate Pharmaceuticals. 5:583 analgesics, 5:585 nonopioid analgesics, 5:585-586 opioid analgesics, 5:585 anesthetics inhalation agents, 5:583-584 intravenous agents, 5:584 local anesthetics, 5:584-585 antiepileptics, 5:593 chronic toxicity, 5:593 CNS effects, 5:593 GI effects, 5:593

hepatotoxicity, 5:593 immunotoxicity, 5:593 antipsychotics treatment of anxiety and depression, 5:588-590 treatment of mania, 5:592 treatment of psychosis, 5:590-592 cardiovascular drugs adrenergic agonists, 5:596 angina pectoris, treatment of, 5:596 angiotensin-converting enzyme (ACE) inhibitors, 5:595 angiotensin II receptor antagonists (ARBs), 5:595 beta-blockers, 5:596 digitalis, 5:595 diuretics, 5:595 ezetimibe, 5:598 gemfibrozil, 5:598 heart failure, treatment of, 5:595 hyperlipidemia, treatment of, 5:597-598 myocardial arrhythmias, treatment of, 5:596-597 niacin, 5:598 nitrates, 5:596 vasodilators, 5:595 diabetes mellitus, treatment of, 5:598-599 estrogen/progestin therapy, 5:600 hyperthyroidism/hypothyroidism, treatment, 5:598 neurodegenerative disorders, 5:594 Alzheimer's disease, 5:594 Huntington's disease, 5:594 Parkinson's disease, 5:594 Tourette's syndrome, 5:594 obesity, treatment of, 5:600 osteoporosis/calcium disorders, treatment of, 5:599-600 sedative hypnotics barbiturates, 5:587-588 benzodiazepines, 5:586-587 buspirone, 5:588 smoking cessation treatment bupropion, 5:594 varenicline, 5:594-595 Pharmazoid Red KB. See 5-Chloro-o-toluidine Phenachlor. See 2,4,6-Trichlorophenol Phenanthren. See Phenanthrene Phenanthrene, 5:378 chemical and physical properties, 5:378 exposure assessment, 5:378 guidelines of exposure, 5:384 production and use, 5:378 toxic effects, 5:378-383 Phenantrin. See Phenanthrene Phene. See Benzene sec-phenethyl alcohol. See 1-Phenylethanol Phenethylene. See Styrene Phenethylene oxide. See Styrene oxide Phenetole. 3:621 chemical and physical properties, 3:621 exposure assessment, 3:621 toxic effects, 3:621 Phenic. See Phenol Phenic acid. See Phenol

Phenol, 2:243 chemical and physical properties, 2:243-244 environmental impact, studies, 2:252 exposure assessment, 2:244 guidelines of exposure, 2:251-252 production and use, 2:244 toxic effects, 2:244-251 acute toxicity, 2:244 carcinogenesis, 2:248 cellular effects studies, 2:248 chronic toxicity, 2:244 epidemiology studies, 2:250 immunotoxicity, 2:249 myelotoxicity, 2:249 neurotoxicity, 2:248 pharmacokinetics, metabolism, and mechanisms, 2:246 terminal hepatic venule (THV), 2:247 Phenol alcohol. See Phenol Phenol-formaldehyde, 4:1013 exposure assessment, 4:1014 production and use, 4:1013-1014 toxic effects experimental studies, 4:1014-1015 human experience, 4:1015-1016 Phenolic novolacs/cresolic novolacs, polyglycidyl ethers, 4:505 chemical and physical properties, 4:505 exposure assessment, 4:506 guidelines of exposure, 4:507 production and use, 4:505-506 toxic effects, 4:506 experimental studies, 4:506-507 human experience, 4:507 Phenolics, 4:1013 Phenol reagent. See Phenol Phenol salicylate. See Phenyl salicylate Phenol trinitrate. See Picric acid Phenoxethol. See Ethylene glycol monophenyl ether Phenoxetol. See Ethylene glycol monophenyl ether Phenoxyacetic acid herbicide. See 2,4-Dichlorophenoxyacetic acid Phenoxybenzene. See Phenyl ether 2-Phenoxycarbonylphenol. See Phenyl salicylate 2-Phenoxyethanol. See Ethylene glycol monophenyl ether 2-(2-(2-(2-(2-Phenoxyethoxy)ethoxy)ethoxy) ethanol). See Tetraethylene glycol monophenyl ether Phenoxyethyl alcohol. See Ethylene glycol monophenyl ether Phenoxy herbicide. See 2,4-Dichlorophenoxyacetic acid Phenoxyisopropanol. See Propylene glycol phenyl ether Phenoxyl ethanol. See Ethylene glycol monophenyl ether 2-(Phenoxymethyl) oxirane. See Phenyl glycidyl ether 1-Phenoxy-2-propanol. See Propylene glycol phenyl ether Phenoxypropene oxide. See Phenyl glycidyl ether Phenoxytol. See Ethylene glycol monophenyl ether Phenylacetylene, 2:233 chemical and physical properties, 2:233 production and use, 2:233 toxic effects, 2:233 Phenylacrolein. See Cinnamaldehyde

3-Phenylacrolein. See Cinnamaldehyde 3-Phenylacryclic acid. See Cinnamic acid 3-Phenylacrylaldehyde. See Cinnamaldehyde Phenyl alcohol. See Phenol Phenylamine. See Aniline N-Phenyl-p-aminoaniline. See 4-Aminodiphenylamine (Phenylamino)benzene. See Diphenylamine 2-Phenyl-aminonaphthalene. See N-Phenyl-2-naphthylamine 2-(N-Phenylamino)naphthalene. See N-Phenyl-2-naphthylamine Phenyl 4-aminophenyl amine. See 4-Aminodiphenylamine; *p*-Aminodiphenylamine N-Phenylaniline. See Diphenylamine p-Phenylaniline. See 4-Aminobiphenyl Phenylbenzenamine. See Diphenylamine N-Phenylbenzenamine. See Diphenylamine 2-Phenylbenzene. See Terphenyl N-Phenyl-1,4-benzenediamine. See 4-Aminodiphenylamine; *p*-Aminodiphenylamine 3-Phenylbiphenyl. See Terphenyl 4-Phenylbiphenyl. See Terphenyl Phenyl-β-naphthylamine. See N-Phenyl-2-naphthylamine N-Phenyl-β-naphthylamine. See N-Phenyl-2-naphthylamine Phenyl bromide. See Bromobenzene 1-Phenylbutane. See Butylbenzene 2-Phenylbutane. See sec-Butylbenzene Phenyl carbinol. See Benzyl alcohol Phenyl cellosolve. See Ethylene glycol monophenyl ether o-Phenylendiamine. See 1,2-Phenylenediamine 2,2'-[1,4-Phenylenebis(oxy)]bisethanol, 4:753 chemical and physical properties, 4:753 guidelines of exposure, 4:753 toxic effects experimental studies, 4:753 2,2'-[1,3-Phenylenebis(oxymethylene)]bis-oxirane. See Resorcinol diglycidyl ether m-Phenylene di(acetate). See Resorcinol diacetate 1,2-Phenylenediamine, 2:562. See also o-Phenylenediamine chemical and physical properties, 2:562 guidelines of exposure, 2:563 production and use, 2:562 toxic effects. 2:563 1,3-Phenylenediamine, 2:563. See also m-Phenylenediamine chemical and physical properties, 2:563 guidelines of exposure, 2:563 production and use, 2:563 toxic effects, 2:563 1,4-Phenylenediamine, 2:563 chemical and physical properties, 2:564 exposure assessment, 2:564 guidelines of exposure, 2:564 production and use, 2:564 toxic effects, 2:564 m-Phenylenediamine, 2:647 chemical and physical properties, 2:647 exposure assessment, 2:648 guidelines of exposure, 2:648 production and use, 2:647-648 toxic effects, 2:648 meta-Phenylenediamine. See 1,3-Phenylenediamine

o-Phenylenediamine, 2:646. See also 1,2-Phenylenediamine chemical and physical properties, 2:646 exposure assessment, 2:647 guidelines of exposure, 2:647 production and use, 2:646-647 toxic effects, 2:647 p-Phenylenediamine, 2:648 chemical and physical properties, 2:649 exposure assessment, 2:649 guidelines of exposure, 2:650 production and use, 2:649 toxic effects, 2:649-650 para-Phenylenediamine. See 1,4-Phenylenediamine Phenylenediamine base. See 1,4-Phenylenediamine; *p*-Phenylenediamine Phenylenediamines, 2:646 m-Phenylene dibenzoate. See Resorcinol dibenzoate 2,2'-(1,4-Phenylenedioxy) diethanol. See 2,2'-[1,4-Phenylenebis (oxy)]bisethanol Phenyl 2,3-epoxypropyl ether. See Phenyl glycidyl ether Phenylethane. See Ethylbenzene 1-Phenyl-1,2-ethanediol. See Styrene glycol 1-Phenylethanol, 4:27 chemical and physical properties, 4:27 production and use, 4:27 toxic effects, 4:27 acute toxicity, 4:27 carcinogenesis, 4:28 chronic and subchronic toxicity, 4:27, 4:28 experimental studies, 4:27 genetic and related cellular effects studies, 4:28 neurological, pulmonary, and skin sensitization, 4:28 pharmacokinetics, metabolism, and mechanisms, 4:28 1-Phenylethan-1-ol. See 1-Phenylethanol 2-Phenylethanol, 4:25 chemical and physical properties, 4:25 exposure assessment, 4:25 production and use, 4:25 toxic effects, 4:25 acute toxicity, 4:25, 4:26 chronic and subchronic toxicity, 4:26 clinical cases, 4:26, 4:27 experimental studies, 4:25 genetic and related cellular effects studies, 4:26 pharmacokinetics, metabolism, and mechanisms, 4:26 reproductive and developmental, 4:26 1-Phenylethanone. See Acetophenone Phenylethene. See Styrene Phenyl ether, 3:634 chemical and physical properties, 3:635 exposure assessment, 3:635 guidelines of exposure, 3:635 toxic effects, 3:635 Phenyl ether-biphenyl eutectic mixture. See Dowtherm A 1-Phenylethyl alcohol. See 1-Phenylethanol Phenylethylene. See Styrene Phenylethylene oxide. See Styrene oxide Phenyl ethyl ether. See Phenetole 1-Phenylethyl hydroperoxide. See Ethylbenzene hydroperoxide

Phenyl ethyl ketone. See Propiophenone Phenyl glycidyl ether, 4:475 Phenyl glycol. See Styrene glycol Phenyl hydrate. See Phenol Phenylhydrazine, 2:885. See also 1,4-Phenylenediamine chemical and physical properties, 2:886 environmental impact, studies, 2:888 exposure assessment, 2:886 guidelines of exposure, 2:888 production and use, 2:886 toxic effects, 2:886-888 Phenyl hydride. See Benzene Phenyl hydroxide. See Phenol Phenyl 2-hydroxybenzoate. See Phenyl salicylate Phenylic acid. See Phenol Phenylic alcohol. See Phenol Phenyl ketone. See Benzophenone 3-Phenyl-l-propane. See Allylbenzene Phenyl mercaptan, 4:1055 animal and human studies, 4:1055-1056 chemical and physical properties, 4:1055 Phenylmercury acetate (PMA), genotoxic effects, 1:360 Phenylmethanal. See Benzaldehyde Phenyl methane. See Toluene Phenyl methanol. See Benzyl alcohol Phenylmethyl acetate. See Benzyl acetate Phenylmethyl alcohol. See Benzyl alcohol N-Phenylmethylamine. See N-Methylaniline Phenylmethyl benzoate. See Benzyl benzoate Phenylmethylcarbinol. See 1-Phenylethanol Phenyl methyl ether. See Anisole Phenyl methyl ketone. See Acetophenone Phenylmethyl 3-phenyl-2-propenoate. See Benzyl cinnamate Phenylmonoglycol ether. See Ethylene glycol monophenyl ether N-Phenyl-2-naphthalenamine. See N-Phenyl-2-naphthylamine Phenyl-2-naphthylamine. See N-Phenyl-2-naphthylamine N-Phenyl-2-naphthylamine, 2:595 chemical and physical properties, 2:595 exposure assessment, 2:595 guidelines of exposure, 2:596 production and use, 2:595 toxic effects, 2:596 4-Phenylnitrobenzene. See 4-Nitrobiphenyl Phenyloxirane. See Styrene oxide 2-Phenyloxirane. See Styrene oxide Phenyloxirane, d8. See Styrene oxide 2-Phenylphenol. See o-Phenylphenol (OPP); Sodium ophenylphenate (SOPP) o-Phenylphenol. See Sodium o-phenylphenate (SOPP) o-Phenylphenol (OPP), 2:321 N-Phenyl-1,4-phenylenediamine. See 4-Aminodiphenylamine N-Phenyl-p-phenylenediamine. See 4-Aminodiphenylamine; p-Aminodiphenylamine Phenyl phosphate. See Triphenyl phosphate Phenyl phosphite. See Phosphorous acid triphenyl ester 1-Phenylpropane. See n-Propylbenzene 2-Phenylpropane. See Isopropylbenzene 2-Phenyl-1-propanol, 4:28 2-Phenylpropan-1-ol. See 2-Phenyl-1-propanol

2-Phenyl-1-propanol chemical and physical properties, 4:28 production and use, 4:28 toxic effects acute toxicity, 4:28 chronic and subchronic toxicity, 4:28 experimental studies, 4:28 genetic and related cellular effects studies, 4:29 neurological, pulmonary, and skin sensitization, 4:29 pharmacokinetics, metabolism, and mechanisms, 4:28 1-Phenyl-1-propanone. See Propiophenone Phenyl-2-propenal. See Cinnamaldehyde 3-Phenylpropenal. See Cinnamaldehyde 3-Phenyl-2-propenal. See Cinnamaldehyde 3-Phenyl-2-propen-1-al. See Cinnamaldehyde 3-Phenyl-2-propenaldehyde. See Cinnamaldehyde 3-Phenyl-2-propenoic acid. See Cinnamic acid 3-Phenyl-2-propenoic acid, 1,5-dimethyl-1-vinyl-4-hexen-1-yl ester. See Linayl Cinnamate 3-Phenyl-2-propenoic acid, ethyl ester. See Ethyl cinnamate 3-Phenyl-2-propenoic acid phenylmethyl ester. See Benzyl cinnamate 2-Phenylpropylene. See α -Methyl styrene Phenyl salicylate, 4:166 chemical and physical properties, 4:166 production and use, 4:166 standards, regulations, or guidelines of exposure, 4:167 toxic effects, 4:167 acute toxicity, 4:167 chronic and subchronic toxicity, 4:167 experimental studies, 4:167 genetic and related cellular effects studies, 4:167 human experience, 4:167 neurological, pulmonary, skin sensitization, 4:167 pharmacokinetics, metabolism, and mechanisms, 4:167 reproductive and developmental, 4:167 o-Phenyltoluene. See Methylbiphenyl Pheochromocytoma, 1:271 PhIP. See 2-Amino-1-methyl-6-phenylimidazo[4,5-b]pyridine Phorate, 4:1175 chemical and physical properties, 4:1175 exposure assessment, 4:1176 guidelines of exposure, 4:1178 production and use, 4:1175-1176 toxic effects experimental studies, 4:1176-1177 human experience, 4:1177-1178 Phosgene, 1:964, 1:1069 chemical and physical properties, 1:964, 1:1070 exposure assessment, 1:964-965, 1:1070 production and use, 1:964, 1:1070 standards, regulations, guidelines of exposure, 1:1072-1073 standards, regulations, or guidelines of exposure, 1:966 effects of mixtures. 1:966 measurement techniques, 1:966 occupational exposure standards, 1:966 prevention, 1:966–967 therapy, 1:966 toxic effects, 1:965, 1:1071

acute toxicity, 1:1071 chronic and subchronic toxicity, 1:1071 clinical cases, 1:1071-1072 experimental studies, 1:965, 1:1071 human experience, 1:965-966, 1:1071 toxicokinetics, 1:1071 Phosmet, 4:1178 chemical and physical properties, 4:1179 exposure assessment, 4:1179 guidelines of exposure, 4:1183 production and use, 4:1179 toxic effects, 4:1179 experimental studies, 4:1179-1181 human experience, 4:1181-1183 Phosphamide. See Dimethoate Phosphates irritant or neurotoxic effects, 4:369t-4:370t Phosphinates, 4:373 Phosphine chemical and physical properties, 1:842t, 1:848 exposure assessment, 1:848-849 production and use, 1:848 standards, regulations, or guidelines of exposure, 1:850 toxic effects, 1:849 experimental studies, 1:849 human experience, 1:849-850 Phosphines irritant or neurotoxic effects, 4:369t-4:370t Phosphites irritant or neurotoxic effects, 4:369t-4:370t Phosphonates, 4:373 Phosphoric acid, 1:845 chemical and physical properties, 1:842t, 1:845 exposure assessment, 1:845 production and use, 1:845 standards, regulations, of guidelines of exposure, 1:845 standards, regulations, or guidelines of exposure, 1:845 toxic effects, 1:845 ecological studies, 1:845 Phosphoric acid, bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) phosphate Phosphoric acid 1,2'2-dibromo-2,2-dichloroethyl dimethyl ester. See Naled Phosphoric acid 2,2-dichloroethenyl dimethyl ester. See Dichlorvos Phosphoric acid 2,2-dichlorovinyl dimethyl ester. See Dichlorvos Phosphoric acid, 3-(dimethylamino)-1-methyl-3-oxo-1-propenyl dimethyl ester, (E). See Dicrotophos Phosphoric acid (E)-3-(dimethylamino)-1-methyl-3-oxo-1propenyl dimethyl ester. See Dicrotophos Phosphoric acid, dimethyl ester, ester with 3-hydroxy-N,Ndimethylcrotonamide, (E). See Dicrotophos Phosphoric acid ethyl ester. See Trichloroethyl phosphate Phosphoric acid tributyl ester. See Tributyl phosphate Phosphoric acid tri-n-butyl ester. See Tributyl phosphate Phosphoric acid 2,2,2-trichloroethyl ester. See Trichloroethyl phosphate Phosphoric acid, tri-o-cresyl ester. See Tri-o-cresyl phosphate Phosphoric acid, tri-o-cresyl ether. See Tri-o-cresyl phosphate

Phosphoric acid triethyl ester. See Triethyl phosphate

Phosphoric acid trimethyl ester. See Trimethyl phosphate Phosphoric acid, tri-2-methylphenyl ester. See Tri-o-cresyl phosphate Phosphoric acid, triphenyl ester. See Triphenyl phosphate Phosphoric acid, tris(2-methylphenyl) ester. See Tri-o-cresyl phosphate Phosphoric ether. See Triethyl phosphate Phosphoris triphenyl. See Triphenyl phosphine Phosphorodithioic acid S-[(tert-butylthio)methyl] O,O-diethyl ester. See Terbufos Phosphorodithioic acid O,O-diethyl S-[(ethylthio) methyl] ester. See Phorate Phosphorodithioic acid, O,O-diethyl S-[1,1-dimethylethyl)thio] methyl ester. See Terbufos Phosphorodithioic acid, O,O-dimethyl ester, S-ester with diethyl mercaptosuccinate. See Malathion Phosphorodithioic acid, O,O-dimethyl-S-((4-oxo-1,2,3,benzotirazin-3 (4H)-yl)methyl)ester. See Azinphos-methyl Phosphorodithioic acid, O,Odimethyl S-[2-(methylamino)-2oxoethyl] ester. See Dimethoate Phosphorothioic acid, O,O-diethyl-O-(2-isopropyl-6-methyl-4pyrimidinyl) ester. See Diazinon Phosphorothioic acid O,O-diethyl O-(1,2,2,2-tetrachloroethyl) ester. See Chlorethoxyphos Phosphorothioic acid O,O-dimethyl O-(4-nitrophenyl) ester. See Methyl parathion Phosphorothioic acid O,O-diethyl O-[6-methyl-2-(1-methylethyl)-4-pyrimidinyl] ester. See Diazinon Phosphorothioic acid O,O-diethyl O-(3,5,6-trichloro-2-pyridinyl) ester. See Chlorpyrifos Phosphorothioic acid, O,O'-(thiodi-4,1-phenylene) O,O,O',O'tetramethyl ester. See Temephos Phosphorotrithioic acid, S,S,S-tributyl ester. See Tribufos Phosphorous acid trimethyl ester. See Trimethyl phosphite Phosphorous acid tris(decyl) ester. See Tridecyl phosphite Phosphorus, 1:841 allotropic forms, 1:843 chemical and physical properties, 1:841, 1:842t compounds, 1:844 exposure assessment, 1:843 production and use, 1:841 standards, regulation, or guidelines of exposure, 1:844 toxic effects, 1:843 acute toxicity, 1:843 chronic and subchronic toxicity, 1:843, 1:844 neurological, pulmonary, and skin sensitization, 1:844 pharmacokinetics, metabolism, and mechanisms, 1:843 Phosphorus oxychloride, 1:846 chemical and physical properties, 1:847 production and use, 1:847 standards, regulations, or guidelines of exposure, 1:847 toxic effects, 1:847 Phosphorus pentachloride, 1:846 chemical and physical properties, 1:842t, 1:846 exposure assessment, 1:846 production and use, 1:846 standards, regulations, or guidelines of exposure, 1:846 toxic effect, 1:846 Phosphorus pentasulfide, 1:847

chemical and physical properties, 1:847 production and use, 1:847 standards, regulations, or guidelines of exposure, 1:847 toxic effects, 1:847 Phosphorus pentoxide, 1:844 chemical and physical properties, 1:842t, 1:844 production and use, 1:844 standards, regulations, or guidelines of exposure, 1:845 toxic effects, 1:844-845 epidemiology studies, 1:845 Phosphorus trichloride, 1:847 chemical and physical properties, 1:842t, 1:848 exposure assessment, 1:848 production and use, 1:848 standards, regulations, or guidelines of exposure, 1:848 toxic effects, 1:848 Phosphorus triphenyl. See Triphenyl phosphine Phostebupirim, 4:1183 chemical and physical properties, 4:1183 exposure assessment, 4:1183 guidelines of exposures, 4:1185 production and use, 4:1183 toxic effects, 4:1183-1184 Photochemical damage, 6:182 Photoelectric effect, 1:2 Photometric techniques, 1:549 Photons, interaction with matter, 1:2 Photophobia, 1:222 Photovoltaic (PV) solar cell, 1:356 Phthalic acid, bis(2-methoxyethyl) ester. See Dimethoxyethyl phthalate Phthalic acid, bis(6-methylheptyl)ester. See Diisooctyl phthalate Phthalic acid, butoxycarbonylmethyl butyl ester. See Butyl phthalyl butyl glycolate Phthalic acid butyl ester, butyl glycolate. See Butyl phthalyl butyl glycolate Phthalic acid, diallyl ester (6CI, 8CI). See Diallyl phthalate Phthalic acid, di (methoxyethyl)ester. See Dimethoxyethyl phthalate Phthalic acid diglycidyl ester, 4:510 chemical and physical properties, 4:510 exposure assessment, 4:510 guidelines of exposure, 4:511 production and use, 4:510 toxic effects experimental studies, 4:510 human experience, 4:511 Phthalic acid, diisooctyl ester. See Diisooctyl phthalate Phthalic acid dinonyl ester. See n-Dinonyl phthalate Phthalic acid, dioctyl ester. See n-Dioctyl phthalate Physics of electric, magnetic, and radiofrequency fields, **6:**111–113 Physiologically based pharmacokinetic (PBPK) models, 1:483, 5:101. 6:480 Physiological regulation and control, 6:39-40 body temperature, control system for, 6:40-41 deep body temperature and total body heat content, 6:41f general control system principles, 6:40 Phytohemagglutinin (PHA), 1:174

Pic-Chlor. See Trichloronitromethane Pic-Clor. See Trichloronitromethane Piccolastic a. See Polystyrene Picene, 5:417 chemical and physical properties, 5:418 exposure assessment, 5:418 guidelines of exposure, 5:418 production and use, 5:418 toxic effects, 5:418 Picfume. See Trichloronitromethane Picis carbonis. See Coal tar 3-Picoline. See Methylpyridines 4-Picoline. See Methylpyridines β-Picoline. See Methylpyridines γ-Picoline. See Methylpyridines Picric acid, 2:540 chemical and physical properties, 2:540 exposure assessment, 2:540 guidelines of exposure, 2:540-541 production and use, 2:540 toxic effects, 2:540 Picride. See Trichloronitromethane Picronitric acid. See Picric acid Pileric acid. See Pimelic acid Pimelic acid, 3:521 chemical and physical properties, 3:521 exposure assessment, 3:521 guidelines of exposure, 3:521 production and use, 3:521 toxic effects experimental studies, 3:521 human experience, 3:521 Pimelic ketone. See Cyclohexanone Pimelin ketone. See Cyclohexanone Pinacolyl alcohol. See 3,3-Dimethyl-2-butanol 2-Pinene. See α -Pinene α-Pinene, 2:137 chemical and physical properties, 2:137 environmental impact, studies, 2:139 exposure assessment, 2:137-138 guidelines of exposure, 2:139 production and use, 2:137 toxic effects, 2:138-139 Pinene, all isomers. See Turpentine Pink disease, in children, 1:218, 1:221 Piperazine carcinogenesis, 2:736 chemical and physical properties, 2:735 environmental impact studies, 2:738 exposure assessment, 2:735 exposure standards, 2:738 genetic and cellular effects, 2:736-737 odor and warning properties, 2:735 pharmacokinetics, metabolism, and mechanisms, 2:736 production and use, 2:735 reproductive and developmental effects, 2:736 toxic effects acute toxicity, 2:735-736 experimental studies, 2:735-737

human experience, 2:737-738 subchronic and chronic toxicity, 2:736 Piperidine carcinogenesis, 2:733 chemical and physical properties, 2:731 environmental impact studies, 2:734 exposure assessment, 2:732 exposure standards, 2:734 genetic and cellular effects, 2:733 odor and warning properties, 2:732 pharmacokinetics, metabolism, and mechanisms, 2:732-733 production and use, 2:732 reproductive and developmental effects, 2:733 toxic effects acute toxicity, 2:732 experimental studies, 2:732 human experience, 2:734 subchronic and chronic toxicity, 2:732 Piperonal, 3:714 chemical and physical properties, 3:714 production and use, 3:714 toxic effects, 3:714-715 Piperonyl aldehyde. See Piperonal Pirimiphos methyl, 4:1185 chemical and physical properties, 4:1185 exposure assessment, 4:1185 guidelines of exposures, 4:1188 production and use, 4:1185 toxic effects experimental studies, 4:1185-1187 human experience, 4:1187-1188 Pitch, coal tar, high-temp. See Coal tar pitch Pixalbol. See Coal tar PKHNB. See Pentachloronitrobenzene Pkhnb. See Pentachloronitrobenzene Plasma emission spectroscopy, 1:549 Plasma-insulin response, 6:361 Platilon. See Polyethylene Platinum acute toxicity, 1:712, 1:718 carcinogenesis, 1:716, 1:719 catalysts, 1:877 chronic and subchronic toxicity, 1:712-714, 1:713t, 1:718 clinical cases, 1:718-719 content, 1:714t distribution, 1:714t exposure assessment, 1:711-712, 1:721t biomonitoring/biomarkers, 1:712 workplace methods, 1:711-712 genetic and related cellular effect studies, 1:716, 1:719 LD₅₀ values, 1:712t neurological, pulmonary, and skin sensitization immunotoxicity, 1:717 irritating activity, 1:716 sensitizing activity, 1:716–717 pharmacokinetics, metabolism, and mechanisms absorption, distribution, and excretion, 1:718-719 mechanism of action, 1:719 pharmacokinetics, metabolism, mechanisms, 1:714-716

mechanisms of action, 1:715-716 physical and chemical properties, 1:710, 1:711t production and use, 1:710-711 reproductive and developmental effects, 1:716, 1:719 standards, regulations, or guidelines of exposure, 1:720 studies on environmental impact, 1:720-722 toxic effects, 1:712-720 epidemiology studies, 1:719-720 experimental studies, 1:712-717 human experience, 1:717-719 Platinum (IV) chloride acute toxicity, 1:722 carcinogenesis, 1:722 chemical and physical properties, 1:711t, 1:722 chronic and subchronic toxicity, 1:722 clinical cases, 1:723 epidemiology studies, 1:723 exposure assessment, 1:722 genetic and related cellular effects studies, 1:722-723 neurological, pulmonary, and skin sensitization irritating activity, 1:723 production and use, 1:722 reproductive and developmental effects, 1:722 standards, regulations, and guidelines of exposure, 1:723 studies on environmental impact, 1:723 toxic effects, 1:722-723 experimental, 1:722-723 human experience, 1:723 Platinum(IV) sulfate tetrahydrate acute toxicity, 1:724 carcinogenesis, 1:725 chemical and physical properties, 1:711t, 1:724 chronic and subchronic toxicity, 1:724 clinical cases, 1:725 exposure assessment, 1:724 genetic and related cellular effect studies, 1:725 neurological, pulmonary, and skin sensitization, 1:725 pharmacokinetics, metabolism, and mechanisms, 1:724 production and use, 1:724 reproductive and developmental effects, 1:724 standards, regulations, or guidelines of exposure, 1:725 studies on environmental impact, 1:725 toxic effects, 1:724-725 epidemiology studies, 1:725 experiments, 1:724-725 human experience, 1:725 Platinum (IV) oxide acute toxicity, 1:723-724 chemical and physical properties, 1:711t, 1:723 chronic and subchronic toxicity, 1:724 clinical cases, 1:724 exposure assessment, 1:723 pharmacokinetics, metabolism, and mechanisms, 1:724 production and use, 1:723 standards, regulations, or guidelines of exposure, 1:724 toxic effects, 1:723-724 epidemiology studies, 1:724 experiments, 1:723-724 human experience, 1:724

Platinum-rhenium catalysts, 1:626 Platinum-rhodium alloy, 1:696 Plexi-glas. See Polymethyl methacrylate Plexigum. See Polymethyl methacrylate Ployoxyethylene ether. See Polyethylene glycols Pluracol products toxicological information, 4:635t Pluracol TP-410 polyols, 4:635 guidelines of exposure, 4:635 physical and chemical properties, 4:635 production and use, 4:635 toxic effects, 4:635 Pluracol TP-740 polyols, 4:635 guidelines of exposure, 4:635 physical and chemical properties, 4:635 production and use, 4:635 toxic effects, 4:635 Pluracol V-10 polyols, 4:635 guidelines of exposure, 4:635 physical and chemical properties, 4:635 production and use, 4:635 toxic effects. 4:635 Pluriol e 200. See Polyethylene glycols Pluronic polyols, 4:633 chemical and physical properties, 4:633 guidelines of exposure, 4:634-635 production and use, 4:633 toxic effects experimental studies, 4:633-634 human experience, 4:634 Plutonium-238 and -239, health effects, 1:16-18 PLZT electrooptical devices, 1:822 PLZT shutter, 1:822 PMA. See Phenylmercury acetate p-Methyl cumene. See o/m/p-Isopropyltoluene PMF coal miner's lung, Gough section of, 5:306f Pmma. See Polymethyl methacrylate PMO. See Polyoxymethylene PMR. See Proportional mortality rate PNA. See 4-Nitroaniline; p-Nitroaniline PNCB. See 1-Chloro-4-nitrobenzene; p-Chloronitrobenzene Pneumoconiosis, 1:365, 1:834, 1:835 symptoms, 1:667 PNOT. See 5-Nitro-o-toluidine PNP. See 4-Nitropheno PNT. See 4-Nitrotoluene PO. See Propylene oxide Point of departure (POD), 5:105 Policapram. See Nylon 6 Poligostyrene. See Polystyrene Pollution standard index (PSI), 1:1000t Poly (ethylene glycol) 100. See Polyethylene glycols Poly (ethylene glycol) 600. See Polyethylene glycols Poly (ethylene glycol) 10,000. See Polyethylene glycols Poly (2 methyl-1,3 butadiene). See Polyisoprene Poly (caprolactam). See Nylon 6 Poly (dimethylsiloxane). See Silicones Poly (thiophenylene). See Polyphenylene sulfide Polyacetal. See Polyoxymethylene

Polyacrylamide, 4:929. See Polyacrylamide chemical and physical properties, 4:929 environmental impact, studies, 4:930-931 exposure assessment, 4:929-930 guidelines of exposure, 4:930 production and use, 4:929 toxic effects, 4:930 Polyacrylamides. See Polyacrylamide Polyacrylate rubber. See Acrylic elastomer Polyacrylic acid, 4:931 chemical and physical properties, 4:931 production and use, 4:931 Poly(acrylic acid). See Polyacrylic acid Polyacrylic elastomer. See Acrylic elastomer Polyacrylonitrile, 4:924 chemical and physical properties, 4:924-925 environmental impact, studies, 4:926 exposure assessment, 4:925 guidelines of exposure, 4:925 production and use, 4:925 toxic effects, 4:925 Polyamide 6. See Nylon 6 Polyamide 11. See Nylon 11 Polyamide 12. See Nylon 12 Polyamide 66. See Nylon 66 Polyamide 610. See Nylon 610 Polyamide 612. See Nylon 612 Polyamide polymers fire and toxicity of smoke, 4:950 inhalation and thermal degradation data, 4:951t-953t physical properties of, 4:948t-949t Polyamide resins. See Nylon Polyamides, 4:946 Polyamines, 2:434 Polybenzimidazole (PBI), 6:292 Polybenzimidazole polymers, 4:1025 production and use, 4:1025 toxic effects, 4:1025 Polybrominated biphenyls (PBBs), 3:247 physical and chemical properties, 3:257-259 Polybrominated diphenyl ethers (PBDEs), 1:62, 5:35 Polybutadiene, 4:895 chemical and physical properties, 4:895 guidelines of exposure, 4:896 production and use, 4:896 toxic effects, 4:896 Poly-(butadieneco-styrene). See Styrene-butadiene Polybutylene glycols, 4:625 production and use, 4:625 toxic effects, 4:625 Poly(1,4-butylene terephthalate). See Polybutylene terephthalate (PBT) Polybutylene terephthalate (PBT), 4:972 chemical and physical properties, 4:972 exposure assessment, **4:**972 guidelines of exposure, 4:973 production and use, 4:972 toxic effects experimental studies, 4:973

human experience, 4:973 Polycarbonate R2200. See Polycarbonate resins Polycarbonate resins, 4:979 chemical and physical properties, 4:979-980 environmental impact, studies, 4:982 exposure assessment, 4:981 guidelines of exposure, 4:982 production and use, 4:980-981 toxic effects, 4:981 experimental studies, 4:981 human experience, 4:981-982 Polychlorinated biphenyl (PCB), 3:247 Aroclors, CAS and RTECS numbers for, 3:255t Aroclors, physical properties of, 3:256t CAS numbers, 3:248t chemical properties of, 3:250-257 dietary intake of, 3:263t, 3:266t exposure assessment, 3:259-267 fetal and neonatal studies, 3:299-300 isomers, numbering of, 3:248t-250t molecular structure and synonyms, 3:250t-255t molecular weights and empirical formulas of, 3:258t numbering of, 3:248t-250t physical properties of, 3:250-257, 3:258t polybrominated biphenyls, CAS numbers for, 3:255t production and use, 3:259 regulations and guidelines, 3:300-305, 3:300t-305t toxic effects experimental studies, 3:267-287 human experience, 3:287-299 Polychlorinated biphenyls (PCBs), 1:38, 3:431, 5:34 Polychlorinated dibenzofurans (PCDFs), 1:62 Polychloroethene. See Polyvinyl chloride Polychlorotrifluoroethylene, 4:913 chemical and physical properties, 4:913 exposure assessment, 4:913 guidelines of exposure, 4:913 production and use, 4:913 toxic effects, 4:913 Polychlorotrifluoroethylene-co-ethylene. See Ethylene chlorotrifluoroethylene copolymer Poly (isobutylene)-co-isoprene. See Butyl rubber Polycyclic aromatic hydrocarbons (PAHs), 1:245, 1:664, 5:371 Poly-1,1,-difluoroethylene. See Polylvinylidene fluoride Polydifluoromethylene. See Polytetrafluoroethylene Polydimethyl silicone oil. See Silicone; Silicones Polydimethyl silicones, 4:1026 chemical and physical properties, 4:1026 environmental impact, studies, 4:1030 exposure assessment, 4:1027 guidelines of exposure, 4:1030 production and use, 4:1026-1027 toxic effects experimental studies, 4:1027-1029 human experience, 4:1029-1030 Polydimethylsiloxane, methyl endblocked. See Silicones Polydimethylsiloxane, methyl end-blocked, silicone, all. See Silicones Polydimethylsiloxane, trimethylsiloxy terminated. See Silicones Polydiol 200. See Polyethylene glycols Poly-em 40. See Polyethylene Poly-epsilon-caprolactam. See Nylon 6 Polyester. See Polyethylene terephthalate Polyethene. See Polyethylene Polyethylene, 4:885 chemical and physical properties, 4:885-886 production and use, 4:886 toxic effects, 4:886-887 Poly(ethylene glycol) 200. See Polyethylene glycols Poly(ethylene glycol) 300. See Polyethylene glycols Polyethylene glycol 400. See Polyethylene glycols Poly(ethylene glycol) 900. See Polyethylene glycols Poly(ethylene glycol) 1000. See Polyethylene glycols Poly(ethylene glycol) 1500. See Polyethylene glycols Poly(ethylene glycol) 2000. See Polyethylene glycols Poly(ethylene glycol) 3400. See Polyethylene glycols Poly(ethylene glycol) 4000. See Polyethylene glycols Poly(ethylene glycol) 6000. See Polyethylene glycols Polyethylene glycol 8000. See Polyethylene glycols Polyethylene glycol 20,000. See Polyethylene glycols Polyethylene glycol (PEG). See Polyoxyethylene (POE) Polyethylene glycol methyl ethers, 4:752 toxic effects, 4:752-753 Poly(ethylene glycol) (550) monomethyl ether. See Polyethylene glycol methyl ethers Poly(ethylene glycol) (750) monomethyl ether. See Polyethylene glycol methyl ethers Poly(ethylene glycol) (1900) monomethyl ether. See Polyethylene glycol methyl ethers Poly(ethylene glycol) (5000) monomethyl ether. See Polyethylene glycol methyl ethers Polyethylene glycols, 4:608. See Polyethylene glycols chemical and physical properties, 4:608 exposure assessment, 4:609 production and use, 4:609 toxic effects experimental studies, 4:609-611 human experience, 4:611 Polyethylene glycol terephthalate. See Polyethylene terephthalate Polyethylene gylcol. See Polyethylene glycols Polyethylene oxide. See Polyethylene glycols Polyethylene oxide (PEO). See Polyoxyethylene (POE) Polyethylene terephthalate, 4:965 chemical and physical properties, 4:965-966 environmental impact, studies, 4:971-972 guidelines of exposure, 4:971 production and use exposure assessment, 4:968-969 film, processing, 4:966-968 polyester fiber, synthesis/processing, 4:966 production volumes and trends, 4:966 toxic effects, 4:969 experimental studies, 4:969-970 human experience, 4:970-971 Polyethylene terephthalate (PET), 1:356 Polyethylene wax. See Polyethylene Polyformaldehyde. See Polyoxymethylene Polyftex. See Polystyrene

Polyglycol 1000. See Polyethylene glycols Polyglycol 11 and 15 series chemical and physical properties, 4:631 guidelines of exposure, 4:631 production and use, 4:631 toxic effects, 4:631 Poly-HEMA. See Poly(2-hydroxethyl methacrylate) hydrogel Poly(hexamethylene adipamide). See Nylon 66 Poly(hexamethylene dodecanediamide). See Nylon 66 Poly(2-hydroxethyl methacrylate) hydrogel, 4:931 chemical and physical properties, 4:932 production and use, 4:932 Poly-I-chloroethylene. See Polyvinyl chloride Polyimide polymers inhalation and thermal degradation data, 4:951t-953t physical properties of, 4:948t-949t Polyimides, 4:946 chemical and physical properties, 4:959-960 guidelines of exposure, 4:961-962 production and use, 4:960 toxic effects experimental effects, 4:960-961 human experience, 4:961 Poly[imino(1-oxo-1,6-hexanediyl)]. See Nylon 6 Polyisoprene, 4:893 chemical and physical properties, 4:893 production and use, 4:893 toxic effects, 4:893 cis-1,4-Polyisoprene. See Polyisoprene Poly-l-acetoxyethylene, acetic acid ethenyl ester, homopolymer. See Polyvinyl acetate Polylvinylidene fluoride, 4:912 chemical and physical properties, 4:912 exposure assessment, 4:913 production and use, 4:912 toxic effects, 4:913 Polymeric delivery system formulations, 2:728 Polymeric dusts explosion parameters of, 4:937t Polymers limiting oxygen indices and ignition temperatures, 4:936t physical properties of, 4:918t Polymer with butanediol. See Butylene glycol adipic acid polyester Polymethylbenzenes, 2:190 Poly-1-methylbutenylene. See Polyisoprene Polymethylene oxide. See Polyoxymethylene Polymethyl methacrylate, 4:927 chemical and physical properties, 4:927-928 exposure assessment, 4:928 production and use, 4:928 toxic effects, 4:928-929 Poly (ethylene glycol)(350) monomethyl ether. See Polyethylene glycol methyl ethers Polymorphonuclear leukocyte count, 1:180 Polymorphonuclear (PMN) migration, 1:174 Polymyositis, 1:360 Polynoxylin. See Urea-formaldehyde resins

Polynuclear aromatics toxicity of, 5:379t-383t Poly(N-vinylpyrrolidone). See Polyvinylpyrrolidone (PVP) Poly(oxy-1,4-butanediyloxycarbonyl-1,4-phenylenecarbonyl). See Polybutylene terephthalate (PBT) Polyoxy(dimethylsilylene), alpha-(trimethylsilyl)-omega-hydroxy. See Silicones Poly[oxy(dimethylsilylene)], alpha-[trimethylsilyl]-omega-[(trimethylsilyl)oxy]. See Silicones Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl). See Polyethylene terephthalate Polyoxy ethers, 3:614 Polyoxyethlene. See Polyethylene glycols Polyoxyethylene. See Polyethylene glycols Polyoxyethylene 1000. See Polyethylene glycols Polyoxyethylene (POE), 4:984. See Polyoxyethylene (POE) chemical and physical properties, 4:985 environmental impact, studies, 4:987 production and use, 4:985 toxic effects, 4:985 experimental studies, 4:985-986 human experience, 4:986 Poly(oxyethyleneoxyterephthaloyl). See Polyethylene terephthalate Polyoxymethylene, 4:982. See Paraformaldehyde chemical and physical properties, 4:983 environmental impact, studies, 4:984 exposure assessment, 4:983 guidelines of exposure, 4:984 production and use, 4:983 toxic effects experimental studies, 4:983-984 human experience, 4:984 Poly[oxy(methyl-1,2-ethanediyl)]. See Polypropylene glycol butyl ethers Poly[oxy(methyl-1,2-ethanediyl)], alpha-hydro-omega-hydroxy-. See Polypropylene glycols Poly(oxyphenylene). See Polyphenylene oxide-based resin Polyoxypropylene glycol butyl ether. See Polypropylene glycol butyl ethers Polyoxypropylene glycol butyl monoether. See Polypropylene glycol butyl ethers Polyoxypropylene monobutyl ether. See Polypropylene glycol butyl ethers Polyperfluoralkylvinylether. See Perfluoroalkoxy copolymer Polyphenylene ether. See Polyphenylene oxide-based resin Polyphenylene oxide (PPO). See Polyphenylene oxide-based resin Polyphenylene oxide-based resin, 4:987 chemical and physical properties, 4:987 exposure assessment, 4:987-988 production and use, 4:987 toxic effects, 4:988 experimental studies, 4:988 human experience, 4:989 Polyphenylene sulfide, 4:989 chemical and physical properties, 4:989 exposure assessment, 4:989 production and use, 4:989 toxic effects, 4:989-990

Poly(phenylene sulfide). See Polyphenylene sulfide Poly(1,4-phenylenesulfide). See Polyphenylene sulfide Polyphenyl ether. See Polyphenylene oxide-based resin Polyphenyls, 2:221 Poly(propanediols). See Polypropylene glycols Polypropene. See Polypropylene Polypropoxbutanol. See Polypropylene glycol butyl ethers Polypropylene, 4:887 chemical and physical properties, 4:887-888 production and use, 4:888 toxic effects, 4:888-889 Poly(propylene glycol) 400. See Polypropylene glycols Poly(propylene glycol) 1000. See Polypropylene glycols Poly(propylene glycol) 2000. See Polypropylene glycols Poly(propylene glycol) 3000. See Polypropylene glycols Poly(propylene glycol) 4000. See Polypropylene glycols Polypropylene glycol butyl ethers, 4:835 chemical and physical properties, 4:835, 4:835t exposure assessment, 4:835 production and use, 4:835 toxic effects, 4:835-836 Polypropylene glycols, 4:619 chemical and physical properties, 4:619 exposure assessment, 4:619 production and use, 4:619 toxic effects, 4:619-621 Polystrol d. See Polystyrene Polystyrene, 4:922 chemical and physical properties, 4:923 environmental impact, studies, 4:924 guidelines of exposure, 4:924 production and use, 4:923 toxic effects, 4:923-924 Poly(styrene). See Polystyrene Polystyrene-acrylonitrile. See Styrene-acrylonitrile (SAN) Polystyrene beads. See Polystyrene Poly-(styrene-co-butadiene). See Styrene-butadiene Polytears. See Hydroxypropyl methyl cellulose Poly-Tears. See Hydroxypropyl methylcellulose Polytetrafluoroethylene, 4:909 chemical and physical properties, 4:909 exposure assessment, 4:909-910 guidelines of exposure, 4:910 production and use, 4:909 toxic effects, 4:910 Polytetrafluoroethylene (PTFE), 6:292 toxicity, 6:402 Polytetrafluoroethylene-co-ethylene. See Ethylene tetrafluoroethylene copolymer Polytetrafluoroethylene-co-hexaflopropylene. See Fluorinated ethylene propylene copolymer Polytetramethylene terephthalate. See Polybutylene terephthalate (PBT) Polythene. See Polyethylene Poly(thio-1,4-phenylene). See Polyphenylene sulfide Polytrioxane. See Polyoxymethylene Poly-s-trioxane. See Polyoxymethylene Polyunsaturated fatty acids (PUFAs), oxidation of, 1:971 Polyurethane, 4:999

coatings, 4:1003 production and use, 4:1000 Polyurethane elastomers, 4:904, 4:1003 chemical and physical properties, 4:904 guidelines of exposure, 4:905 production and use, 4:904-905 toxic effects, 4:905 Polyurethane fibers, 4:1003-1004 exposure assessment, 4:1004 air, 4:1004 workplace methods, 4:1004-1005 guidelines of exposure, 4:1012 toxic effects, 4:1005 experimental studies, 4:1005-1008 human experience, 4:1008-1012 Polyurethane foams, 4:1001-1003. See also Polyurethane Polyurethanes, 4:999 Polyvalent metals, absorption from the GI tract, 1:824 Polyvidone. See Polyvinylpyrrolidone (PVP) Polyvinyl acetate, 4:917, 4:919 chemical and physical properties, 4:919 environmental impact, studies, 4:920 guidelines of exposure, 4:920 production and use, 4:919 toxic effects, 4:919-920 carcinogenicity, 4:920 experimental studies, 4:919 toxicologic potential, 4:917 work practices, 4:919 Polyvinyl acetate-butyl acrylate, 4:920 Polyvinyl acetate ethylene, 4:920 Polyvinyl acetate-2-ethylhexyl acrylate, 4:920 Polyvinyl alcohol, 4:917, 4:920 chemical and physical properties, 4:921 environmental impact, studies, 4:922 guidelines of exposure, 4:922 production and use, 4:921 toxic effects, 4:921-922 Polyvinyl alcohol 500. See Polyvinyl alcohol Poly(N-vinylbutyrolactam). See Polyvinylpyrrolidone (PVP) Polyvinyl chloride, 4:905 chemical and physical properties, 4:905 environmental impact, studies, 4:907 exposure assessment, 4:906 guidelines of exposure, 4:907 production and use, 4:905-906 toxic effects, 4:906-907 Polyvinyl chloride (PVC), 1:449 Polyvinyl fluoride, 4:908 chemical and physical properties, 4:909 Polyvinylidene chloride, 4:907 chemical and physical properties, 4:907-908 guidelines of exposure, 4:908 production and use, 4:908 toxic effects, 4:908 Poly-(vinylpyrrolidinone). See Polyvinylpyrrolidone (PVP) Poly(1-vinyl-2-pyrrolidinone). See Polyvinylpyrrolidone (PVP) Poly(vinyl pyrrolidone). See Polyvinylpyrrolidone (PVP) Poly-(1-vinyl-2-pyrrolidone). See Polyvinylpyrrolidone (PVP)

Poly(N-vinyl- 2-pyrrolidone). See Polyvinylpyrrolidone (PVP) Polyvinylpyrrolidone (PVP), 4:1022 chemical and physical properties, 4:1022 exposure assessment, 4:1022 production and use, 4:1022 toxic effects, 4:1022 experimental studies, 4:1023-1024 human experience, 4:1024-1025 Polyvinylpyrrolidone K-30. See Polyvinylpyrrolidone (PVP) Polyviol. See Polyvinyl alcohol Poly (methylene) wax. See Paraffins (waxes) Polyyox WSR-301. See Polyethylene glycols Pontalite. See Polymethyl methacrylate Pontamine Developer TN. See 2,4-Toluenediamine Popliteal lymphatic node test (PLN), 1:717 Porcelain clay. See Kaolin Porphobilinogen (PBG), 1:389 Portland cement chemical and physical properties, 5:199 exposure assessment, 5:200 guidelines of exposure, 5:200 production and use, 5:200 toxicity, 5:200 Portland cement kiln dust. See Portland cement Portland cement plant kiln dust. See Portland cement Portland cement silicate. See Portland cement Postnatal day (PND), 1:620, 1:785 Potassium, 1:935 chemical and physical properties, 1:935, 1:936 exposure assessment, 1:936 biomonitoring/biomarkers, 1:936 production and use, 1:936 toxic effects, 1:936 Potassium-40, 1:18 Potassium carbonate (KHCO₃), as pearl ash, 1:936 Potassium chlorate, 1:1080 Potassium cyanate chemical and physical properties, 2:950t-951t, 2:989 production and use, 2:989 toxic effects, 2:989 Potassium cyanide chemical and physical properties, 2:950t-951t, 2:953 exposure assessment, 2:953 exposure standards, 2:953 odor and warning properties, 2:953 production and use, 2:953 toxic effects, 2:953 Potassium ferricyanide chemical and physical properties, 2:950t-951t, 2:989 production and use, 2:990 toxic effects, 2:990 Potassium ferrocyanide chemical and physical properties, 2:950t-951t, 2:990 production and use, 2:990 toxic effects, 2:990 Potassium hexachloroplatinate(IV) acute toxicity, 1:740 carcinogenesis, 1:740 chemical and physical properties, 1:711t, 1:739

Potassium hexachloroplatinate(IV) (Continued) chronic and subchronic toxicity, 1:740 clinical cases, 1:740 exposure assessment, 1:739 genetic and related cellular effect studies, 1:740 hygienic standards, regulations, or guidelines of exposure, 1:740 pharmacokinetics, metabolism, and mechanisms, 1:740 production and use, 1:739 reproductive and developmental effects, 1:740 studies on environmental impact, 1:740 toxic effects epidemiology studies, 1:740 experimental studies, 1:740 human experience, 1:740 Potassium hydroxide, 1:936 chemical and physical properties, 1:937 exposure assessment, 1:937 production and use, 1:937 standards, regulations, and guidelines of exposure, 1:937 studies on environmental impact, 1:937 toxic effects, 1:937 Potassium nitrate (KNO₃), in fertilizers, 1:936 Potassium perchlorate, 1:1081 Potassium permanganate, 1:610 Potassium tetrachloropalladate(II), 1:699 Potassium tetrachloroplatinate(II) acute toxicity, 1:741, 1:742 carcinogenesis, 1:741 chemical and physical properties, 1:711t, 1:741 chronic and subchronic toxicity, 1:741, 1:742 exposure assessment, 1:741 genetic and related cellular effect studies, 1:741 neurological, pulmonary, and skin sensitization irritating activity, 1:741 sensitizing activity, 1:741 pharmacokinetics, metabolism, and mechanisms, 1:741, 1:742 production and use, 1:741 reproductive and developmental effects, 1:741 standards, regulations, or guidelines of exposure, 1:742 studies on environmental impact, 1:742 toxic effects. 1:741-742 clinical cases, 1:742 epidemiology studies, 1:742 experimental studies, 1:741-742 Potato alcohol. See Ethanol Potential neurotoxic compounds, 1:53 screening, and prioritization, 1:53 animal neurotoxicity testing batteries, 1:53, 1:55 developmental neurotoxicity screening battery, 1:55 future of neurotoxicity screening, 1:55-56 human neurotoxicity screening batteries, 1:53 Potentiated acid glutaraldehyde. See Glutaraldehyde Potroom palsy, 1:246 Povidone. See Polyvinylpyrrolidone (PVP) Powellite, 1:577 Poyvinol. See Polyvinyl alcohol PP. See Polypropylene PPD. See 1,4-Phenylenediamine PPG-14 butyl ether. See Polypropylene glycol butyl ethers

PPG-16 butyl ether. See Polypropylene glycol butyl ethers PPG-33 butyl ether. See Polypropylene glycol butyl ethers PPS. See Polyphenylene sulfide Precipitated silica. See Amorphous silica Prehnitine, 2:191 Preservastat. See Sorbic acid Pressure, 6:281t alternative gases, 6:282, 6:285 always oxygen, 6:285 atmospheric, absolute, and differential, 6:281 composition of atmospheric air, 6:286t compressed air work, 6:289 caissons, 6:289 tunnels, 6:289 conversions between common units, 6:283t-285t effects of exposure to high pressure, 6:300 high-pressure nervous syndrome, 6:300-301 hyperbaric arthralgia, 6:300 hyperbaric bradycardia, 6:301 effects of pressure, 6:297 alternobaric vertigo, 6:300 arterial gas embolism, 6:299 on body cavities, 6:297 ears and sinuses, 6:297-298 expansion and compression of gas spaces, 6:297 gut, 6:298 lung, 6:298 pulmonary barotrauma and embolism, 6:298-299 right to left shunts, the PFO, 6:299 squeezes, 6:300 teeth, 6:298 effects related to mechanics of gas, 6:301 Boyle's law effects, 6:303 gas density, 6:302 helium's effects on equipment, 6:303 helium's effects on speech, 6:302 thermal effects, 6:302 effects related to nature of gas, 6:303 avoiding narcosis, 6:303-304 inert gas narcosis, 6:303 oxygen toxicity, 6:304-305 element of time, 6:296 adaptation to altitude, 6:296-297 as continuum as well as pressure, 6:296 early pressure effects, 6:296 time-related effects of exposure to increased pressure, 6:296 engineering of pressure facilities, 6:290 construction standards for occupied pressure vessels, 6:290 fire safety in human-occupied chambers, 6:290-292 handling oxygen, 6:290 personnel and operating standards, 6:292-293 problem of fire, 6:290 high pressure: hyperbaric conditions, 6:287 bell diving with a deep diving system, 6:288 breath-hold diving, 6:287 diving and underwater work, 6:287 saturation and habitat diving, 6:288-289 self-contained, open-circuit scuba diving, 6:287-288 self-contained rebreather diving, 6:288

surface decompression, 6:288 surface-supplied diving, 6:288 hyperbaric medicine, 6:289-290 hypobaric conditions, 6:293 altitude, 6:293 aviation, 6:293, 6:295 conversions of various altitude units, 6:294t-295t hypobaric chambers, 6:296 space travel, 6:296 hypoxia, 6:317 adaptation to short-term altitude exposure, 6:319 at altitude, responses, 6:318 cabin decompression, 6:322-323 decompression to altitude, 6:323-325 effects of high altitude on preexisting disorders, 6:322 flying after diving, 6:325-326 long-term exposure to hypoxia with adaptation, 6:320-322 manifestations of acute exposure, 6:318-319 prevention of acute hypoxia, 6:319-320 types of, 6:317 inert gases, 6:285 matter of being "inert," 6:285-286 partial pressure, 6:281-282 pressure conversion chart, 6:283t problems after exposure to high pressure, 6:306 ascent constraints, 6:307 computing decompression tables, 6:307 counterdiffusion, 6:309-310 decompression computation techniques, 6:306 decompression definition, 6:306 decompression from saturation diving, 6:308 decompression sickness and decompression illness, 6:310-311 decompression tables, 6:308-309 dive computers and decompression software, 6:309 flying after diving and diving at altitude, 6:309 gas uptake, 6:306 Haldane method, 6:306-307 oxygen as an inert gas, 6:308 repetitive diving, 6:309 role of oxygen in decompression, 6:307-308 special decompression situations, 6:309 problems of exposure to low pressure, 6:314 altitude and aviation physiology, 6:315 alveolar ventilation, 6:315 oxygen transport from lungs to tissue, 6:316-317 transfer of gases between lungs and blood, 6:315-316 properties of breathing and environmental gases, 6:282 properties of inert gases, 6:286-287 situations require/result in exposure to pressure, 6:290 terms and units, 6:282 treatment of decompression disorders, 6:311-312 decision trees and treatment tables, 6:313 in-water treatment using oxygen, 6:314 oxygen breathing at 1 Atm, 6:313 recompression with oxygen breathing, 6:312-313 rehydration and drugs, 6:313-314 treatment in monoplace chamber, 6:314 Preventolon. See Sodium o-phenylphenate (SOPP)

Priltox. See Pentachlorophenol Primary acetate. See Cellulose triacetate Primary amyl acetate. See n-Amyl acetate Primary amyl alcohol. See 1-Pentanol Primol. See White oils Primol 355. See White oils Primol d. See White oils Printels. See Polystyrene Printing oils, 5:353 Priority Substances List (PSL), 5:60 PRNP gene, 1:375 Procaine. See 2-(Diethylamino) ethyl p-aminobenzoate Profenofos, 4:1188 chemical and physical properties, 4:1188 exposure assessment, 4:1188-1189 guidelines of exposures, 4:1191 production and use, 4:1188 toxic effects, 4:1189 experimental studies, 4:1189-1190 human experience, 4:1190-1191 Profume A. See Trichloronitromethane Prokarbol. See 4,6-Dinitro-o-cresol Prometryne, 2:848 chemical and physical properties, 2:848 environmental impact, studies, 2:850 exposure assessment, 2:848 guidelines of exposure, 2:850 production and use, 2:848 toxic effects, 2:848 carcinogenesis, 2:849 cellular effects studies, 2:849-850 chronic and subchronic toxicity, 2:849 experimental studies, 2:848-849 human experience, 2:850 pharmacokinetics, metabolism, and mechanisms, 2:849 reproductive and developmental, 2:849 Promulsin. See Stearic acid Propadiene, 2:75 Propaldehyde. See Propionaldehyde Propanal. See Propionaldehyde 1-Propanamine. See n-Propylamine Propan-1-amine. See n-Propylamine 2-Propanamine. See Isopropylamine 1,3-Propandiol. See 1,3-Propanediol Propane, 2:6-9 biomonitoring/biomarkers, 2:7 chemical and physical properties, 2:6 exposure assessment, 2:6 exposure guidelines, 2:9 occupational exposure limits, 2:9 production and use, 2:6 toxic effects, 2:7 acute toxicity, 2:7, 2:8 chronic/subchronic toxicity, 2:7 epidemiology studies, 2:8 human experience, 2:8 pharmacokinetics, 2:7 n-Propane. See Propane

1-Propanecarboxylic acid. See Butyric acid Propanediamine. See 1,3-Propanediamine 1,2-Propanediamine, 2:484 chemical and physical properties, 2:484 guidelines of exposure, 2:485 production and use, 2:484 toxic effects, 2:484 1,3-Propanediamine, 2:485 chemical and physical properties, 2:485 guidelines of exposure, 2:485 production and use, 2:485 toxic effects, 2:485 Propane-1,3-diamine. See 1,3-Propanediamine Propane, 1,2-dinitrate. See 1,2-propanediol, dinitrate Propanedioic acid. See Malonic acid Propanedioic acid, diethyl ester. See Diethyl malonate Propanedioic acid, dimethyl ester. See Dimethyl malonate Propanediol. See Propylene glycol 1,2-Propanediol. See Propylene glycol Propane-1,2-diol. See Propylene glycol 1,3-Propanediol, 4:616 chemical and physical properties, 4:616 exposure assessment, 4:616 guidelines of exposure, 4:617 production and use, 4:616 toxic effects, 4:616 experimental studies, 4:616-617 Propane-1,3-diol. See 1,3-Propanediol 1,3-propanediol, 2,2-bis(bromoethyl) (9CI). See 2,2-Bis (bromomethyl)-1,3-propanediol 1,2-Propanediolcarbonate. See Propylene carbonate 1,2-Propanediol cycliccarbonate. See Propylene carbonate 1,2-Propanediol dinitrate. See Propylene glycol dinitrate 1,2-Propanediol, 1(or 2)-acrylate. See Propylene glycol monoacrylate 1,2-Propanediyl carbonate. See Propylene carbonate Propanenitrile, 2-[(4-chloro-6-ethylamino-1,3,5-triazin-2-yl) amino]-2-methyl-. See Cyanazine Propaneperoxoic acid. See t-Butyl peroxypivalate Propanesulfonyl chloride, 4:1064 Propanethiol chemical and physical properties, 5:157-158, 5:158t exposure assessment, 5:158 guidelines of exposure, 5:159 human experience, 5:158-159 production and use, 5:158 toxic effects, 5:158 Propane-1-thiol. See Propanethiol 2-Propanethiol, 5:159 chemical and physical properties, 5:159-160 exposure assessment, 5:160 guidelines of exposure, 5:160 human experience, 5:160 production and use, 5:160 toxic effects, 5:160 1,2,3-Propanetricarboxylic acid, 2-(acetyloxy)-, tributyl ester. See Acetyl tributyl citrate 1,2,3-Propanetricarboxylic acid, 2-(acetyloxy)-, tributyl ester, and acetyl butyl citrate. See Acetyl tributyl citrate

1,2,3- Propanetricarboxylic acid, 2-(acetyloxy)-, triethyl ester and ATEC. See Acetyl triethyl citrate 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, triethyl ester. See Triethyl citrate 1,2,3-Propanetriol, diacetate. See Glyceryl diacetate 1,2,3-Propanetriol, monoacetate. See Glyceryl monoacetate 1,2,3-Propanetriol octanoate. See Glyceryl trioctanoate 1,2,3-Propanetriol, triacetate; acetic, 1,2,3-propanetriyl ester. See Glyceryl triacetate 1,2,3-Propanetriol trinitrate. See Nitroglycerin 1,2,3-Propanetriol trioctanoate. See Glyceryl trioctanoate 1,2,3-Propanetriol, tripropanoate. See Glyceryl tripropionate 1,2,3-Propanetriyl butanoate. See Glyceryl tributyrate 1.2.3-Propanetriyl decanoate. See Glyceryl tridecanoate 1,2,3-Propanetriyl ester. See Glyceryl triundecanoate 1,2,3-Propanetriyl ether of 12-(oxiranylmethoxy)-9-octadecanoic acid (COGE). See Castor oil glycidyl ether 1,2,3-Propanetriyl hexanoate. See Glyceryl trihexanoate 1,2,3-Propanetriyl tributanoate. See Glyceryl tributyrate 1,2,3-Propanetriyl tripropionate. See Glyceryl tripropionate Propane, 1,2,3-triyl triundecanoate. See Glyceryl triundecanoate 1,2,3-Propanetriyl undecanoate. See Glyceryl triundecanoate Propanoic acid. See Methyl pyruvate; Propionic acid; 2,2,4-Trimethyl-1,3-pentanediol diisobutyrate 2-Propanoic acid. See n-Butyl lactate Propanoic acid, 3-ethoxy-, ethyl ester. See Ethyl 3ethoxypropionate Propanoic acid, ethyl ester. See Ethyl propionate Propanoic acid, 2-hydroxy-, ethyl ester. See Ethyl lactate Propanoic acid methyl ester. See Methyl propionate Propanoic acid, 2-methyl-3-hydroxy-2,2,4-trimethylpenty ester. See 2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate Propanoic acid, 2-methyl-, 1,2,3-propanetriyl ester. See Glyceryl triisobutyrate 1-Propanol, 3:934 chemical and physical properties, 3:934 exposure assessment, 3:935 guidelines for exposure, 3:936 production and use, 3:934 toxic effects experimental studies, 3:935-936 human experience, 3:936 Propan-1-ol. See 1-Propanol 2-Propanol. See Isopropanol Propan-2-ol. See Isopropanol *i*-Propanol. See Isopropanol n-Propanol. See 1-Propanol n-Propan-2-ol. See Isopropanol 1-Propanol, 2,3-epoxy-, 1,2-cyclohexanedicarboxylate. See Hexahydrophthalic acid diglycidyl ester 1-Propanol,2,3-epoxy-, phthalate. See Phthalic acid diglycidyl ester Propanol, 1(or 2)-(2-propenyloxy)-. See Mono-, di-, and tripropylene glycol allyl ethers 1,2,3-Propanol tridecanoate. See Glyceryl tridecanoate Propanone. See Acetone 2-Propanone. See Acetone Propan-2-one. See Acetone Propargyl alcohol, 4:39 chemical and physical properties, 4:40

CUMULATIVE SUBJECT INDEX, VOLUMES 1-6 681

exposure assessment, 4:40 workplace methods, 4:40 production and use, 4:40 standards, regulations, or guidelines of exposure, **4:**41 toxic effects, 4:40 acute toxicity, 4:40 carcinogenesis, 4:41 chronic and subchronic toxicity, 4:40, 4:41 experimental methods, 4:40 genetic and related cellular effects studies, 4:41 pharmacokinetics, metabolism, and mechanisms, **4:**41 Propargylic acid. See Propiolic acid Propazine, 2:840 chemical and physical properties, 2:840 environmental impact, studies, 2:842 exposure assessment, 2:840 guidelines of exposure, 2:842 production and use, 2:840 toxic effects, 2:841 carcinogenesis, 2:842 cellular effects studies, 2:842 chronic and subchronic toxicity, 2:841 experimental studies, 2:841 human experience, 2:842 pharmacokinetics, metabolism, and mechanisms, 2:841 reproductive and developmental, 2:841-842 Propcorn. See Propionic acid Propellant 114. See 1,2,-Dichloro-1,1,2,2-tetrafluoroethane Propellent 11. See Trichlorofluoromethane Propellent 12. See Dichlorodifluoromethane Propenal. See Acrolein 2-Propenal. See Acrolein Prop-2-enal. See Acrolein Prop-2-en-1-al. See Acrolein Propenaldehyde. See Acrolein 2 Propenamide, homopolymer, J-100. See Polyacrylamide 2-Propen-1-amine. See Allylamine Propene, 2:53. See Acrylic acid; Propylene glycol dinitrate chemical and physical properties, 2:54 epidemiology studies, 2:56 exposure assessment, 2:54 guidelines of exposure, 2:56 production and use, 2:54 toxic effects, 2:54-56 1-Propene. See Propene 2-Pro-penenitrile polymer with ethenylbenzene. See Styreneacrylonitrile (SAN) Propene oxide. See Propylene oxide 1-Propene polymer. See Polypropylene 1-Propene-1,2,3-tricarboxylic acid. See Aconitic acid (E)-1,2,3-Propenetricarboxylic acid. See Aconitic acid 2-Propenoic. See Acrylic acid 2-Propenoic acid. See Ethylene glycol diacrylate 2-propenoic acid, See *n*–Butyl Methacrylate 2-Propenoic acid butyl ester. See n-Butyl acrylate Propenoic acid n-butyl ester. See n-Butyl acrylate

2-Propenoic acid, 2,2-dimethyl-1,3-propanediyl ester. See 2,2-Dimethyl-1,3-propanediol diacrylate 2-Propenoic acid ethyl ester. See Ethyl acrylate Propenoic acid, homopolymer. See Polyacrylic acid 2-Propenoic acid, homopolymer. See Polyacrylic acid Propenoic acid methyl ester. See Methyl acrylate 2-Propenoic acid methyl ester. See Methyl acrylate 2-Propenoic acid methyl ester polymer with 1,1-dichloroethene. See Vinylidine chloride-methylacrylate 2-Propenoic acid, 2-methyl-, 2-methylpropyl ester. See Isobutyl methacrylate 2-Propenoic acid, 1-methyl-1,3-propanediyl ester. See 1,3-Butanediol diacrylate 2-Propenoic acid, oxydi-2,1-ethanediyl. See Diethylene glycol diacrvlate 2-Propenoic acid, 3-phenyl-, butyl ester. See n-Butyl cinnamate 2-Propenoic acid, 3-phenyl-, 1,5-dimethyl-1-vinyl-4-hexen-1-yl ester. See Linayl Cinnamate 2-Propenoic acid, 3-phenyl-1-ethenyl, 1,5-dimethyl-4-hexenyl ester. See Linayl Cinnamate Propenoic acid, 3-phenyl-, ethyl ester. See Ethyl cinnamate 2-Propenoic acid, 3-phenyl-, methyl ester. See Methyl cinnamate 2-Propenoic acid, 3-phenyl-, phenylmethyl ester. See Benzyl cinnamate 2-Propenoic acid, 3-phenyl-, 2-propenyl ester. See n-Allyl cinnamate 2-Propenoic acid, 3-phenyl-, propyl ester. See n-Propyl cinnamate Propenoic acid polymer. See Polyacrylic acid Propenoic acid polymers, homopolymer. See Polyacrylic acid 1-Propenol-3. See Allyl alcohol 2-Propen-1-ol. See Allyl alcohol 2-Propen-1-one. See Acrolein 2-Propenyl acetate. See Allyl acetate 2-Propenylacrylic acid. See Sorbic acid 2-Propenylbenzene. See Allylbenzene 2-Propenyl chloride. See Allyl chloride Propenyl cinnamate. See n-Allyl cinnamate 2-Propenyl ester of acetic acid. See Allyl acetate 2-Propenyl ethanoate. See Allyl acetate Prop-2-enyl formate. See Allyl formate 2-Propenyl methanoate. See Allyl formate 1-Propenyl-3-methoxy-4-hydroxybenzene. See Isoeugenol Propen-2-yl methyl ketone. See Methyl isopropenyl ketone [(2-Propenyloxy)methyl]oxirane. See Allyl glycidyl ether (2-Propenyloxy)propanol. See Mono-, di-, and tripropylene glycol allyl ethers 2-Propen-1-yl 3-phenyl-2-propenoate. See n-Allyl cinnamate 2-Propenyl 3-phenyl-2-propenoate. See n-Allyl cinnamate N-2-Propenyl-2- propen-1-amine. See Diallylamine Propetamphos, 4:1191 chemical and physical properties, 4:1191 exposure assessment, 4:1191–1192 guidelines of exposure, 4:1194 production and use, 4:1191 toxic effects experimental studies, 4:1192-1193 human experience, 4:1193-1194

Propiolic acid, 3:533 chemical and physical properties, 3:536 production and use, 3:536 toxic effects, 3:536 experimental studies, 3:536 human experience, 3:537 Propiolic alcohol. See Propargyl alcohol Propionaldehyde, 3:680 chemical and physical properties, 3:680 toxic effects, 3:680 Propionates, 4:186 Propionic acid, 3:480 chemical and physical properties, 3:480 exposure assessment, 3:480 guidelines of exposure, 3:482 production and use, 3:480 toxic effects experimental studies, 3:480-481 human experience, 3:481-482 Propionic acid triglyceride. See Glyceryl tripropionate Propionic aldehyde. See Propionaldehyde Propionic ester. See Ethyl propionate Propionic ether. See Ethyl propionate Propionin, tri-. See Glyceryl tripropionate Propionitrile chemical and physical properties, 2:950t-951t, 2:967 exposure assessment, 2:967 exposure standards, 2:967 pharmacokinetics, metabolism, and mechanisms, 2:967-968 production and use, 2:967 reproductive and developmental effects, 2:968 toxic effects acute toxicity, 2:967 experimental studies, 2:967-968 human experience, 2:968 warning properties, 2:967 Propiophenone, 3:876 chemical and physical properties, 3:876 environmental impact, studies, 3:877-878 exposure assessment, 3:876 guidelines of exposure, 3:877 production and use, 3:876 toxic effects experimental studies, 3:876-877 human experience, 3:877 Proportional mortality analyses, 1:664 Proportional mortality rate (PMR), 1:404 p-(n-Propoxy)benzaldehyde, 3:713 chemical and physical properties, 3:713 4-(Propoxycarbonyl)aniline. See Propyl p-aminobenzoate Propoxyethanol. See Ethylene glycol mono-n-propyl ether Propoxyethanol acetate. See Ethylene glycol mono-n-propyl ether acetate 2-Propoxyethanol; propyl glycol. See Ethylene glycol mono-npropyl ether 2-Propoxyethanyl acetate. See Ethylene glycol mono-n-propyl ether acetate 2-(2-(Propoxyethoxy)ethanol). See Diethylene glycol mono-npropyl ether

2-Propoxyethylacetate. See Ethylene glycol mono-n-propyl ether acetate 1-Propoxy-2-propanol. See Propylene glycol-n-monopropyl ether Propyl acetate. See n-Propyl acetate 1-Propyl acetate. See n-Propyl acetate (2-Propyl)acetate. See Isopropyl acetate sec-Propyl acetate. See Isopropyl acetate Propylacetic acid. See Valeric acid Propylacetone. See Methyl n-butyl ketone β-Propylacrolein. See Hexenal Propyl alcohol. See 1-Propanol n-Propyl alcohol. See 1-Propanol sec-Propyl alcohol. See Isopropanol Propyl aldehyde. See Propionaldehyde Propyl allyl disulfide animal and human studies, 4:1061 chemical and physical properties, 4:1060-1061 Propylamine. See n-Propylamine 2-Propylamine. See Isopropylamine n-Propylamine, 2:456 chemical and physical properties, 2:457 exposure assessment, 2:457 guidelines of exposure, 2:457 production and use, 2:457 toxic effects, 2:457 sec-Propylamine. See Isopropylamine Propyl amines. See n-Propylamine Propyl aminobenzoate. See Propyl p-aminobenzoate Propyl 4-aminobenzoate. See Propyl p-aminobenzoate Propyl p-aminobenzoate, 4:181 chemical and physical properties, 4:181 exposure assessment, 4:181 production and use, 4:181 Propylbenzene. See n-Propylbenzene 1-Propylbenzene. See n-Propylbenzene n-Propylbenzene, 2:200 Propylbenzenes, 2:199 toxicity of, 2:202 Propyl β -phenylacrylate. See n-Propyl cinnamate Propyl bromide, 3:113 chemical and physical properties, 3:113 guidelines of exposure, 3:113 production and use, 3:113 toxic effects experimental studies, 3:113 n-Propyl bromide. See Propyl bromide 1-Propylbutylamine. See 4-Aminoheptane Propyl carbinol. See 1-Butanol Propyl chloride-1, 3:93 chemical and physical properties, 3:94 guidelines of exposure, 3:94 production and use, 3:94 toxic effects experimental studies, 3:94 human experience, 3:94 Propyl chloridocarbonate. See Propyl chloroformate Propyl chlorocarbonate. See Propyl chloroformate Propyl chloroformate, 4:397 chemical and physical properties, 4:397
production and use, 4:398 toxic effects, 4:398 n-Propyl chloroformate. See Propyl chloroformate n-Propyl cinnamate, 4:175 chemical and physical properties, 4:175 toxic effects, 4:175 acute toxicity, 4:175 chronic and subchronic toxicity, 4:175 experimental studies, 4:175 uses, 4:175 Propylene. See Propene 1-Propylene. See Propene 2-Propylene acrolein. See Hexa-2,4-dienal Propylene aldehyde. See Acrolein Propylene carbonate, 4:360 chemical and physical properties, 4:360 production and use, 4:360 toxic effects, 4:360 acute toxicity, 4:360 human experience, 4:360, 4:361 pharmacokinetics, metabolism, and mechanisms, 4:361 1,2-Propylene carbonate. See Propylene carbonate Propylene chlorohydrin, 4:45 chemical and physical properties, 4:45 production and use, 4:45, 4:46 standards, regulations, or guidelines of exposure, 4:48 toxic effects, 4:46 acute toxicity, 4:46 carcinogenesis, 4:48 chronic and subchronic toxicity, 4:46 experimental studies, 4:46 genetic and related cellular effects studies, 4:48 human experience, 4:48 pharmacokinetics, metabolism, and mechanisms, 4:46 reproductive and developmental, 4:46 toxicity data on miscellaneous alcohols, 4:47 sec-Propylene chlorohydrin. See Propylene chlorohydrin Propylenediamine. See 1,2-Propanediamine 1,2-Propylenediamine. See 1,2-Propanediamine 1,3-Propylenediamine. See 1,3-Propanediamine Propylene dichloride, 3:95 chemical and physical properties, 3:96 exposure assessment, 3:96 guidelines of exposure, 3:102 production and use, 3:96 toxic effects, 3:96 experimental studies, 3:96-101 human experience, 3:101-102 Propylene epoxide. See Propylene oxide Propylene glycol, 4:611 chemical and physical properties, 4:612 exposure assessment, 4:612 experimental studies, 4:612-615 human experience, 4:615-617 production and use, 4:612 1,2-Propylene glycol. See Propylene glycol Propylene glycol allyl ether, (allyloxy) propanol. See Mono-, di-, and tripropylene glycol allyl ethers Propylene glycol butoxyethyl ether, 4:812

chemical and physical properties, 4:813 production and use, 4:813 toxic effects, 4:813 1,2-Propylene glycol carbonate. See Propylene carbonate Propylene glycol cyclic carbonate. See Propylene carbonate Propylene glycol dinitrate, 4:863. See also 1,2-propanediol, dinitrate; Propylene glycol 1,2-dinitrate chemical and physical properties, 4:863 exposure assessment, 4:864 guidelines of exposure, 4:866 toxic effects experimental studies, 4:864-865 human experience, 4:865-866 Propylene glycol 1,2-dinitrate, 2:385 chemical and physical properties, 2:385 exposure assessment, 2:385-387 guidelines of exposure, 2:387 production and use, 2:385 1,2-Propylene glycol dinitrate (PGDN). See Propylene glycol dinitrate Propylene glycol ether of methylcellulose. See Hydroxypropyl methylcellulose Propylene glycol ethers, 4:789, 4:791t β-isomers of, 4:793 occupational exposure, 4:790 pharmacokinetics, metabolism, and mode of action, 4:790-793 toxic effects. 4:790 U.S. manufacturers of, 4:790 Propylene glycol ethers, acetate esters of physical and chemical properties, 4:840t 2-Propylene glycol 1-ethyl ether acetate (2PG1EEA). See Propylene glycol monoethyl ether acetate Propylene glycol methyl ether (PGME) propylene glycol methyl acetate (PGMEA) comparison of toxicities, 4:793t Propylene glycol monoacrylate, 4:845 chemical and physical properties, 4:845 guidelines of exposure, 4:846 occupational exposure guidelines, 4:846t toxic effects experimental studies, 4:845-846 genetic and related cellular effect studies, 4:846 human experience, 4:846 neurological, pulmonary, and skin sensitization, 4:846 Propylene glycol monoallyl ether. See Mono-, di-, and tripropylene glycol allyl ethers Propylene glycol mono-*n*-butyl ether, 4:805 chemical and physical properties, 4:805 guidelines of exposure, 4:807 production and use, 4:805 toxic effects, 4:805-807 Propylene glycol mono-tert-butyl ether. See Propylene glycol mono-tertiary-butyl ether Propylene glycol monoethylbutyl ether, mixed isomers, **4:**812 chemical and physical properties, 4:812 toxic effects, 4:812

Propylene glycol monoethyl ether, 4:801 chemical and physical properties, 4:801 guidelines of exposure, 4:802 toxic effects, **4:**801-802 Propylene glycol monoethyl ether acetate, 4:854 chemical and physical properties, 4:855 exposure assessment, 4:855 toxic effects, 4:855-856 Propylene glycol monohexyl ether, mixed isomers. See Propylene glycol monoethylbutyl ether, mixed isomers Propylene glycol monoisopropyl ether, 4:804 chemical and physical properties, 4:805 guidelines of exposure, 4:805 toxic effects, 4:805 Propylene glycol monomethyl ether (PGME), 4:793. See also Propylene glycol monomethyl ether (PGME) chemical and physical properties, 4:794 exposure assessment, 4:794 guidelines of exposure, 4:800 occupational exposure guidelines, 4:800t production and use, 4:794 toxic effects, 4:794 experimental studies, 4:794-799 human experience, 4:799-800 Propylene glycol monomethyl ether acetate, 4:852 chemical and physical properties, 4:852 guidelines of exposure, 4:854 production and use, 4:853 toxic effects, 4:853-854 Propylene glycol-n-monopropyl ether, 4:802 chemical and physical properties, 4:803 guidelines of exposure, 4:804 production and use, 4:803 toxic effects experimental studies, 4:803 eye irritation, 4:804 skin irritation, 4:804 subchronic inhalation, 4:804 Propylene glycol-n-monopropyl ether (PGPE). See Propylene glycol-n-monopropyl ether Propylene glycol mono-tertiary-butyl ether, 4:807 chemical and physical properties, 4:807 exposure assessment, 4:807 guidelines of exposure, 4:812 production and use, 4:807 toxic effects experimental studies, 4:808-812 Propylene glycol phenyl ether, 4:813 chemical and physical properties, 4:813 exposure assessment, 4:813 guidelines of exposure, 4:818 toxic effects, 4:814-818 Propyleneimine carcinogenesis, 2:710 chemical and physical properties, 2:709 environmental impact studies, 2:708-709 exposure assessment, 2:709 exposure standards, 2:710-711 genetic and cellular effects, 2:710

odor and warning properties, 2:709 pharmacokinetics, metabolism, and mechanisms, 2:710 production and use, 2:709 reproductive and developmental effects, 2:710 toxic effects acute toxicity, 2:709-710, 2:710t experimental studies, 2:709-710 human experience, 2:710 subchronic and chronic toxicity, 2:710 Propylene oxide, 4:439 chemical and physical properties, 4:439 exposure assessment, 4:439 background levels, 4:439-4:440 biomonitoring/biomarkers, 4:440-4:441 workplace methods, 4:440 odor and warning properties, 4:439 production and use, 4:439 standards, regulations, or guidelines of exposure, 4:446 toxic effects, 4:441 acute toxicity, 4:441 carcinogenesis, 4:443-4:445 chronic and subchronic toxicity, 4:441-4:442 epidemiology studies, 4:446 human experience, 4:445-4:446 neurological, pulmonary, skin sensitization, 4:445 pharmacokinetics, metabolism, and mechanisms, 4:442 reproductive and developmental., 4:442-4:443 Propylene oxide, propylene glycol polymer. See Polypropylene glycols Propylene sulfide animal and human studies, 4:1060 chemical and physical properties, 4:1060 Propyl ester. See Octyl gallate 2-Propyl ester. See Isopropyl formate Propylester kyseliny gallove [Czech]. See Propyl gallate Propylester kyseliny p-hydroxybenzoove [Czech]. See Propyl paraben Propylester kyseliny skoricove [Czech]. See n-Propyl cinnamate Propyl ester of nitric acid. See Propyl nitrate n-Propyl ester of 3,4,5-trihydroxybenzoic acid. See Propyl gallate Propyl ethanoate. See n-Propyl acetate Propyl ether, 3:601 chemical and physical properties, 3:601 toxic effects, 3:601 experimental studies, 3:601 Propylethylene. See 1-Pentene Propyl formate, 4:63 n-Propyl formate. See Propyl formate Propylformic acid. See Butyric acid Propyl gallate, 4:205 chemical and physical properties, 4:205 odor and warning properties, 4:206 production and use, 4:206 standards, regulations, or guidelines of exposure, 4:207 toxic effects, 4:206 acute toxicity, 4:206 carcinogenesis, 4:206, 4:207 chronic and subchronic toxicity, 4:206 experimental studies, 4:206

genetic and related cellular effects studies, 4:207 human experience, 4:207 neurological, pulmonary, skin sensitization, 4:207 pharmacokinetics, metabolism, and mechanisms, 4:206 reproductive and developmental, 4:206 N-Propyl gallate. See Propyl gallate Propyl glycol acetate. See Ethylene glycol mono-n-propyl ether acetate Propyl hydride. See Propane Propyl 4-hydroxybenzoate. See Propyl paraben Propyl p-hydroxybenzoate. See Propyl paraben Propylic aldehyde. See Propionaldehyde Propyl ketone. See Di-n-propyl Ketone Propyl mercaptan. See Propanethiol animal and human studies, 4:1045 chemical and physical properties, 4:1044-1045 exposure assessment, regulations, and standards, 4:1045 production and use, 4:1045 2-Propyl mercaptan. See 2-Propanethiol n-Propyl mercaptan. See Propanethiol Propylmethanol. See 1-Butanol Propyl methonate. See Propyl formate Propyl nitrate, 2:378 acute effects of, 2:379 chemical and physical properties, 2:378 exposure assessment, 2:378 guidelines of exposure, 2:379 production and use, 2:378 toxic effects, 2:378-379 1-Propyl nitrate. See Propyl nitrate 2-Propyl nitrate. See Isopropyl nitrate Propyl p-oxybenzoate. See Propyl paraben (2-Propyloxy)ethyl acetate. See Ethylene glycol mono-n-propyl ether acetate Propyl PABA. See Propyl p-aminobenzoate Propyl p-aminobenzoate. See Propyl p-aminobenzoate Propyl paraben, 4:170 chemical and physical properties, 4:170 odor and warning properties, 4:170 production and use, 4:170 standards, regulations, or guidelines of exposure, 4:171 toxic effects, 4:171 acute toxicity, 4:171 carcinogenesis, 4:171 chronic and subchronic toxicity, 4:171 experimental studies, 4:171 genetic and related cellular effects studies, 4:171 human experience, 4:171 neurological, pulmonary, skin sensitization, 4:171 pharmacokinetics, metabolism, and mechanisms, 4:171 reproductive and developmental, 4:171 Propyl 3-phenylpropenoate. See n-Propyl cinnamate Propyl 3-phenyl-2-propenoate. See n-Propyl cinnamate N-Propyl-1-propanamine. See n-Dipropylamine Propyl 3,4,5-trihydroxybenzoate. See Propyl gallate n-Propyl 3,4,5-trihydroxybenzoate. See Propyl gallate Propyne, 2:81 chemical and physical properties, 2:82 exposure assessment, 2:82

guidelines of exposure, 2:83 occupational exposure limits for, 2:83 production and use, 2:82 toxic effects, 2:82 1-Propyne. See Propyne Propynoic acid. See Propiolic acid 2-Propynoic acid. See Propiolic acid Prop-2-ynoic acid. See Propiolic acid 2-Propyn-1-ol. See Propargyl alcohol Protection against cold, 6:29 α_1 -Proteinase inhibitor (α_1 PI), **1:**973 Protein glycation, 1:359 Proteinosis, 1:270 Protein tyrosine phosphatase, inhibition, 1:523 Proteinuria, 1:191 Protocatechuic aldehyde methylene ether. See Piperonal Protons, 1:2, 1:10 Protopet. See White oils Proviscol wax. See Stearic acid Prozoin. See Propionic acid Prussian blue, treatment for cesium poisoning, 1:945 PS. See Polystyrene Pseudoacetic acid. See Propionic acid Pseudobulbar paralysis, 1:325 Pseudocumene, 2:191 Psorigel. See Coal tar Psychosomatic complaints, 6:350 PTFE. See Polytetrafluoroethylene PTH. See Parathyroid hormone (PTH) p-Tolyl alcohol, 4:29 chemical and physical properties, 4:29 production and use, 4:29 toxic effects, 4:29 clinical cases, 4:29 experimental studies, 4:29 genetic and related cellular effects studies, 4:29 p53 tumor suppressor gene, 6:183 Pulmonary alveolar proteinosis (PAP), 1:244 Pulmonary barotrauma, 6:298, 6:299 etiology, 6:298 lung squeeze condition, 6:298 Pulmonary edema, 1:188, 1:937 Pulmonary emphysema, 1:672 Pulmonary fibrosis, 1:17 Pulmonary function measurements, 1:179 Pulmonary function tests, 1:531 Pulmonary toxicity of inhaled lanthanides, 1:834 Pumice/Pumicite chemical and physical properties, 5:198 guidelines of exposure, 5:198 production and use, 5:198 Pureline. See Petrolatum Putrescine. See Tetramethylenediamine PVA. See Polyvinyl acetate; Polyvinyl alcohol PVAC. See Polyvinyl acetate PVAL. See Polyvinyl alcohol PVC. See Polyvinyl chloride PVD. See Polyvinylidene chloride PVDF, vinylidene fluoride. See Polylvinylidene fluoride

PVF. See Polyvinyl fluoride PVOH. See Polyvinyl alcohol PVP. See Polyvinylpyrrolidone (PVP) PY 100. See Polyethylene Pylen. See Polyethylene Pyrene, 5:396 chemical and physical properties, 5:397 exposure assessment, 5:397 production and use, 5:397 toxic effects, 5:397 Pyrethroid insecticides, 1:61, 1:62 neurotoxicity of, 1:62 3,6-Pyridazinedione, 1,2-dihydro-. See Maleic hydrazide 2-Pyridinamine. See Aminopyridines 4-Pyridinamine. See Aminopyridines 2-pyridinethiol, 1-oxide, sodium salt. See Pyridinethione Pyridinethione compounds, 2:813 chemical and physical properties, 2:814 exposure assessment, 2:814 human experience, 2:817 production and use, 2:814 toxic effects, 2:814 acute toxicity, 2:814-815 carcinogenesis, 2:817 chronic and subchronic toxicity, 2:815 experimental studies, 2:814 genetic and related cellular effects studies, 2:817 pharmacokinetics, metabolism, and mechanisms, 2:815-816 reproductive and developmental, 2:816-817 β-Pyridyl-α-N-methylpyrrolidine. See Nicotine 4-(2-Pyridylazo) resorcinol (PAR), 1:541 2,4-(1H,3H)-Pyrimidinedione, 5-chloro-3(1,1-dimethylethyl)-6methyl-. See Substituted uracils Pyroacetic acid. See Acetone Pyroacetic ether. See Acetone Pyroacetic spirit. See Acetone Pyrobenzol. See Benzene Pyrocatechin. See Pyrocatechol Pyrocatechol, 2:252 chemical and physical properties, 2:252 environmental impact, studies, 2:254 exposure assessment, 2:253 guidelines of exposure, 2:254 production and use, 2:252 toxic effects epidemiology studies, 2:253 experimental studies, 2:253 human experience, 2:253 Pyrogallic acid. See Pyrogallol Pyrogallol, 2:271 chemical and physical properties, 2:272 exposure assessment, 2:272 production and use, 2:272 toxic effects, 2:272-273 Pyromucic aldehyde. See Furfural Pyropentylene. See 1,3-Cyclopentadiene Pyroxilene. See Cellulose nitrate Pyroxylic spirit. See Methanol

Pyroxylin. See Cellulose nitrate Pyrrole chemical and physical properties, 2:745 environmental impact studies, 2:745-746 exposure assessment, 2:745 exposure standards, 2:745 odor and warning properties, 2:745 production and use, 2:745 toxic effects acute toxicity, 2:745 experimental studies, 2:745 human experience, 2:745 subchronic and chronic toxicity, 2:745 Pyrrolidine carcinogenesis, 2:726 chemical and physical properties, 2:725 environmental impact studies, 2:726-727 exposure assessment, 2:725 exposure standards, 2:726 genetic and cellular effects, 2:726 odor and warning properties, 2:725 pharmacokinetics, metabolism, and mechanisms, 2:726 production and use, 2:725 reproductive and developmental effects, 2:726 toxic effects acute toxicity, 2:725-726 experimental studies, 2:725-726 human experience, 2:726 subchronic and chronic toxicity, 2:726 Pyrrolidinone, 1-ethenyl-, homopolymer. See Polyvinylpyrrolidone (PVP) 1-Pyrroline, 5:160 andguidelines of exposure, 5:161 exposure assessment, 5:161 human experience, 5:161 physical and chemical properties, 5:161, 5:161t production and use, 5:161 toxic effects, 5:161 Pyruvic acid ethyl ester. See Ethyl pyruvate Pyruvic acid methyl ester. See Methyl pyruvate Qazi-ketcham. See Ethylene oxide QRS complex, 1:544 Quadrupole (Q)-ICP-MS, 1:446 Quadrupole mass spectrometers (QMS), 1:774 Quantum dots, 5:171f Quaternary herbicides, 2:827 carcinogenesis, 2:831-832 chemical and physical properties, 2:828 environmental impact, studies on, 2:834 exposure assessment, 2:828 human experience, 2:832-833 production and use, 2:828 standards, regulations, or guidelines of exposure, 2:834 toxic effects, 2:828 acute toxicity, 2:828-829 chronic and subchronic toxicity, 2:829-830 experimental studies, 2:828 genetic and related cellular effects studies, 2:832

pharmacokinetics, metabolism, and mechanisms, 2:830-831 reproductive and developmental, 2:831 Quinol. See Hydroquinone β-Quinol. See Hydroquinone Quinoline, 2:901 chemical and physical properties, 2:901 environmental impact, studies, 2:903-904 exposure assessment, 2:902 guidelines of exposure, 2:903 production and use, 2:901 toxic effects, 2:902 carcinogenesis, 2:902-903 cellular effects studies, 2:903 chronic and subchronic, 2:902 experimental studies, 2:902 pharmacokinetics, metabolism, and mechanisms, 2:902 reproductive and developmental, 2:902 Ouinone, 2:268 chemical and physical properties, 2:268 environmental impact, studies, 2:271 exposure assessment, 2:269 guidelines of exposure, 2:271 production and use, 2:268-269 toxic effects, 2:269-271 Quintobenzene. See Pentachloronitrobenzene Quintocene. See Pentachloronitrobenzene Quintochlorobenzene. See Pentachlorobenzene Quintozen. See Pentachloronitrobenzene Quintozine. See Pentachloronitrobenzene Quintrate. See Pentaerythritol tetranitrate R-13. See Chlorotrifluoromethane R-21. See Dichlorofluoromethane R-22. See Chlorodifluoromethane R-32. See Difluoromethane r 50 (refrigerant). See Methane R-112. See 1,1,2,2-Tetrachloro-1,2-difluoroethane R-123. See 1,1-Dichloro-2,2,2-trifluoroethane R-124. See 1-Chloro-1,2,2,2-tetrafluoroethane R-125. See Pentafluoroethane R611. See Methyl formate R2200. See Polycarbonate resins R-133a. See 1-Chloro-2,2,2-trifluoroethane R-134a. See 1,1,1,2-Tetrafluoroethane R-143a. See 1,1,1-Trifluoroethane R-152a. See 1,1-Difluoroethane Radial tunnel syndrome, 6:254 Radiation background, 1:18, 1:804, 807 biological effects of, 1:4 chemistry, 1:6 damage modifiers of. 1:8, 1:9 at molecular level, 1:5 of DNA. 1:6 measurement of, 1:5 protection, 1:18 external radiation standards, 1:19

radium-226, 1:18, 1:19 radon-222. 1:18 Radiation effects, at cellular level, 1:7 cell survival curves, 1:7, 1:8 Radiation sensitivity, according to cell type, 1:9, 1:10 Radiation-weighting factor, 1:4 Radioactive decay, 1:2, 1:4 Radioactive ruthenium acute toxicity, 1:693, 1:694 carcinogenesis, 1:694 chemical and physical properties, 1:693 chronic and subchronic toxicity, 1:694 clinical cases, 1:694 exposure assessment, 1:693 genetic and related cellular effect studies, 1:694 guidelines for exposure to ionizing radiation, 1:695t pharmacokinetics, metabolism, and mechanisms, 1:694 production and use, 1:693 reproductive and developmental effects, 1:694 standards, regulations, or guidelines of exposure, 1:694-695 studies on environmental impact, 1:695 toxic effects, 1:693-694 experimental studies, 1:693-694 human experience, 1:694 Radioallergosorbent tests (RAST), 1:649, 1:717 Radio-frequency radiation (RFR), 6:133 biological and health effects, 6:137, 6:159 cancer, 6:140, 6:143-144, 6:150-157 experimental studies, 6:137 long-term studies, 6:137-138 nervous system, 6:138-140, 6:145-147 ocular effects, 6:138, 6:147-148 reproduction and development, 6:140, 6:148-150 clinical studies. 6:144 emissions characteristics, 6:133 epidemiological studies, 6:144, 6:150t-155t evaluation, 6:136 exposure assessment, 6:134 measurement, 6:135 modeling, 6:134-135 exposure guidelines and standards, 6:159:160 generation, 6:134 interactions with matter and dosimetry, 6:136 energy transfer, 6:136 partial-body resonance and hot spots, 6:137 whole-body exposure and absorption, 6:136-137 major sources of exposure to, 6:135t morbidity and mortality, 6:144-145 physical characteristics, 6:134 quantities and units, 6:133-134 reproduction, 6:148-150 in vivo studies, 6:141t-142t Radio-labeled N-oxide, 2:718 dermal application, 2:718 Radionuclides, 1:4, 1:5 decay, 1:4 health effects of, 1:15, 1:16 Radiopharmaceutical, 1:835

Radium, 1:158 chemical and physical properties, 1:159 exposure assessment, 1:159 air, 1:159 background levels, 1:159 biomonitoring/biomarkers, 1:159 production and use, 1:159 standards, regulations, or guidelines of exposure, 1:161 toxic effects, 1:160 experimental studies, 1:160 human experience, 1:160-161 Radium-226, health effects, 1:16 Radon-222, health effects, 1:16-18 Raney alloy, 1:655 Range oil. See Kerosene Rapeseed methyl ester (RME). See Biodiesel Rats, inhalation experiments, 5:191t Raynaud's disease, 1:485 Rayon. See Cellulosics R-141b. See 1,1-Dichloro-1-fluoroethane R-142b. See 1-Chloro-1,1-Difluorodifluroethane RBP. See Retinal binding protein (RBP) RD-6584. See 2,6-Dichloro-4-nitroaniline RDGE. See Resorcinol diglycidyl ether RDX. See Cyclotrimethylenetrinitramine RE 12420. See Acephate R-227ea. See 1,1,1,2,3,3,3-Heptafluoropropane **REACH Regulation**, 1:538 Reactive airways dysfunction syndrome (RADS), 1:966 Reactive oxygen and nitrogen species (ROS/RNS), 1:434, 435 Reasonably anticipated to be human carcinogen (RAHC), 6:470 Recommended dietary allowance (RDA), 5:97 Recommended exposure limits (RELs), 5:8 Rectified spirit of turpentine. See Turpentine Rectified turpentine oil. See Turpentine Rectifier. See Turpentine Rectules. See Chloral hydrate Red Base Ciba VI. See 4-Chloro-2-nitroaniline Red Base 3GL. See 4-Chloro-2-nitroaniline Red Base Irga VI. See 4-Chloro-2-nitroaniline Red Base NIR. See 4-Chloro-o-toluidine Red 2G Base. See 4-Nitroaniline Red 3G Base. See 4-Chloro-2-nitroaniline Red 3G Salt. See 4-Chloro-2-nitroaniline Red 3GS Salt. See 4-Chloro-2-nitroaniline Red KB Base. See 5-Chloro-o-toluidine Red oil. See Oleic acid Red Salt Ciba VI. See 4-Chloro-2-nitroaniline Red Salt Irga VI. See 4-Chloro-2-nitroaniline Red Salt NBGL. See 4-Chloro-2-nitroaniline Red TR Base. See 4-Chloro-o-toluidine Reevon. See Polyethylene Reference concentration (RfC), 5:98 Reference doses (RfDs) standard uncertainty factors, 5:106t Refined solvent naphtha. See VM&P Naphtha Refinery processes flow chart of, 5:337f Refining process, 1:357, 1:384

Refractory ceramic fibers, 5:285 chemical and physical properties, 5:285 environmental impact, studies, 5:295 exposure assessment, 5:285-286 guidelines of exposure, 5:295 production and use, 5:285 toxic effects, 5:287 experimental studies, 5:287-292 human experience, 5:292-295 Refrigerant 12. See Dichlorodifluoromethane Refrigerant 112. See 1,1,2,2-Tetrachloro-1,2-difluoroethane Refrigerant 114. See 1,2,-Dichloro-1,1,2,2-tetrafluoroethane Refrigerant 112a. See 1,1,1,2-Tetrachloro-2,2-difluoroethane Refrigerant R 10. See Carbon tetrachloride Refrigerant R20. See Chloroform Refrigerant R21. See Dichlorofluoromethane Refrigerant R22. See Chlorodifluoromethane Refrigerant R114. See 1,2,-Dichloro-1,1,2,2-tetrafluoroethane Refrigerant R-115. See 1-Chloro-1,1,2,2,2-Pentafluoroethane Regenerated cellulose. See Cellulosics Registration, Evaluation, and Authorization of Chemicals (REACH), 5:33 Registration, Evaluation, Authorization, and Restriction of Chemical substances (REACH), 5:21 Registry of Toxic Effects of Chemical Substances (RTECS), 5:60 Relative biological effectiveness (RBE), 1:4 Renal AC. See 4-Aminophenol Renal dysfunction, due to cadmium, 1:194, 1:196 Renal EG. See 3-Aminophenol Renal impairment, clinical signs, 1:408 Renal MD. See 2,4-Toluenediamine Renal PF. See 1,4-Phenylenediamine; p-Phenylenediamine Renal proximal tubule cell, diagram, 1:499f Renin-angiotensin system, 1:392 Repairsin. See Polymethyl methacrylate Repellent 6-12. See 2-Ethyl-1,3-hexanediol Replens. See Paraffins (waxes) Reports on Carcinogens (ROC), 5:19 Reproductive Assessment by Continuous Breeding (RACB) protocol, 2:964 REPROTOX. 5:62 Resarit 4000. See Polymethyl methacrylate Residual oils, 5:357 Resisan. See 2,6-Dichloro-4-nitroaniline Resissan. See 2,6-Dichloro-4-nitroaniline Resorcin. See Resorcinol Resorcin acetate. See Resorcinol monoacetate Resorcin monoacetate. See Resorcinol monoacetate Resorcinol, 2:254 chemical and physical properties, 2:254-255 exposure assessment, 2:255 guidelines of exposure, 2:257 production and use, 2:255 toxic effects. 2:255 experimental studies, 2:255-256 human experience, 2:256-257 Resorcinol acetate. See Resorcinol monoacetate Resorcinol diacetate, 4:203 chemical and physical properties, 4:204

Resorcinol dibenzoate, 4:205 chemical and physical properties, 4:205 toxic effects, 4:205 Resorcinol diglycidyl ether (RDGE), 4:492, 4:503 chemical and physical properties, 4:503 exposure assessment, 4:503 guidelines of exposure, 4:505 production and use, 4:503 toxic effects, 4:503 experimental studies, 4:504-505 human experience, 4:505 Resorcinol esters, 4:190, 4:203 chemical and physical properties, 4:203 production and use, 4:203 Resorcinol monobenzoat, 4:204 chemical and physical properties, 4:204 production and use, 4:204 toxic effects, 4:204 experimental studies, 4:204 human experience, 4:204 Resorcitate. See Resorcinol monoacetate Respirable particulate matter (RPM), 5:81 Respirable Quartz, 5:193t Respiratory system, hyperreactivity of, 1:717 Respiratory tract regions, 5:74t fractional deposition, 5:75f Response, to injury, 1:43, 1:44 glial response, 1:44 Reticuloendothelial system, 1:805 Retinal binding protein (RBP), 1:408 Rexene 106. See Styrene-acrylonitrile (SAN) Rexolite 1422. See Polystyrene R-236fa. See 1,1,1,3,3,3-Hexafluoropropane R-245fa. See 1,1,1,3,3-Pentafluoropropane RF EMF exposure on brain structure and function, 6:119 mechanisms of action, health effect, 6:122 national and international RF standards, 6:123t Rhabdomyolysis, 1:921 Rhenium (Re) acute toxicity and irritation, 1:626-627 chemical and physical properties, 1:625-626 exposure assessment, 1:626 long-term toxicity, 1:627 pharmacokinetics, metabolism, and mechanisms, 1:627 production and use, 1:626 standards, regulations, and guidelines of exposure, 1:627 toxic effects, 1:626-627 Rhinitis, 1:512 Rhodinal. See Citronella Rhodium, 1:695 exposure limits, 1:698t LD₅₀ values, **1:**697t Rhodium chloride acute toxicity, 1:696 carcinogenesis, 1:697 chronic and subchronic toxicity, 1:696 exposure assessment in air, 1:696

in background levels, 1:696 biomonitoring/biomarkers, 1:696 community methods, 1:696 workplace methods, 1:696 genetic and related cellular effect studies, 1:697 neurological, pulmonary, and skin sensitization allergic effects, 1:697 irritating effect, 1:697 pharmacokinetics, metabolism, and mechanisms, 1:696-697 absorption, 1:697 distribution, 1:697 excretion, 1:697 mechanisms, 1:697 physical and chemical properties, 1:695-696, 1:696t production and use, 1:696 reproductive and developmental effects, 1:697 standards, regulations, or guidelines of exposure, 1:698 toxic effects, 1:696-698 experimental studies, 1:696-697 human experience, 1:697 Rhodoline. See Polystyrene Rhomellose. See Methyl cellulose Rhoplex ac-33. See Ethyl methacrylate Rhoplex B 85. See Polymethyl methacrylate Ricin, 3:579 chemical and physical properties, 3:579 guidelines of exposure, 3:581 production and use, 3:579 toxic effects experimental studies, 3:579-581 human experience, 3:581 Ricinic acid. See Ricinoleic acid Ricinoleic acid, 3:560 chemical and physical properties, 3:560 guidelines of exposure, 3:561 production and use, 3:560 toxic effects, 3:560 experimental studies, 3:560-561 human experience, 3:561 Rickettsia tsutsugamushi transmission electron micrograph, 5:501f Rigidex 35. See Polyethylene Ringer's solution, 1:452 Risk assessment goals, 5:91t Rivaite. See Wollastonite RIVM uncertainty factors, 5:109t RNA synthesis, 2:707 Road tar. See Asphalt Rock oil. See Crude oil Rock wool. See Mineral wool Rodenticide, as aluminum phosphide, 1:849 Rodinal. See 4-Aminophenol Rodol D. See 1,4-Phenylenediamine Rodol YBA. See 2-Amino-5-nitrophenol Romacryl. See Polymethyl methacrylate Rongalit. See Formaldehyde sodium sulfoxylate Roof tar. See Asphalt Roscoelite, 1:513. See Mica

Rose ether. See Ethylene glycol monophenyl ether Rriamylamine. See Tri-n-amylamine Rubber. See Polyisoprene Rubber solvent, 5:344. See Petroleum naphthas chemical and physical properties, 5:344 exposure assessment, 5:344 guidelines of exposure, 5:344 production and use, 5:344 toxic effects, 5:344 Rubbing alcohol. See Isopropanol Rubidium, 1:945 chemical and physical properties, 1:945 exposure assessment, 1:945 biomonitoring/biomarkers, 1:945 production and use, 1:945 salts, used in glasses and ceramics, 1:945 toxic effects, 1:945 Rutgers 6-12. See 2-Ethyl-1,3-hexanediol Ruthenium acute toxicity, 1:690-691, 1:692 in blood, 1:690 carcinogenesis, 1:692 chemical and physical properties, 1:688-689, 1:689t chronic and subchronic toxicity, 1:692-693 chronic and subchronic toxicity., 1:691 exposure assessment in air, 1:690 in background levels, 1:690 biomonitoring/biomarkers, 1:690 community methods, 1:690 workplace methods, 1:690 genetic and related cellular effect studies, 1:692 LD₅₀ values, 1:691 neurological, pulmonary, and skin sensitization irritation. 1:692 sensitization, 1:692 pharmacokinetics, metabolism, and mechanisms, 1:693 absorption, 1:691-692 distribution, 1:692 excretion, 1:692 production and use, 1:689-690 reproductive and developmental effects, 1:692 standards, regulations, or guidelines of exposure, 1:693 toxic effects, 1:690-693 epidemiology studies, 1:692-693 experimental studies, 1:690-692 human experience, 1:692 in urine. 1:690 Ryanodine receptor, 1:151 Safety Data Sheet (SDS), 5:49 Sal ether. See Ethyl salicylate Sal ethyl. See Ethyl salicylate Salicylaldehyde, 3:717 chemical and physical properties, 3:717 production and use, 3:717 toxic effects, 3:717 Salicylates, 4:147 physical and chemical properties, 4:148

toxicity of, 4:151 Salicylic acid, ethyl ester. See Ethyl salicylate Salicylic acid, methyl ester. See Salicylates Salicylic acid, pentyl ester. See Amyl salicylate Salicylic acid, phenyl ester. See Phenyl salicylate Salicylic aldehyde. See Salicylaldehyde Salicylic ether. See Ethyl salicylate Salicylic ethyl ester. See Ethyl salicylate Salicylylal. See Salicylaldehyde Salicylylaldehyde. See Salicylaldehyde Salmonella lactam test, 2:756 Salmonella/microsome Ames test, 2:733 Salmonella mutagenicity, 6:463 Salphenyl. See Phenyl salicylate SAM utilization, 1:483 Sandwich compound, 1:640 Saniclor 30. See Pentachloronitrobenzene Sanrex. See Styrene-acrylonitrile (SAN) Santoflex IC. See 1,4-Phenylenediamine; p-Phenylenediamine Santophen 20. See Pentachlorophenol Sanyo Fast Red Salt 3GL. See 4-Chloro-2-nitroaniline Saponification, of cell membrane fatty acids, 1:935 Sarcoidosis, 1:244 SA Terraclor. See Pentachloronitrobenzene SA Terraclor 2E. See Pentachloronitrobenzene Saturated aliphatic monocarboxylic acids physical properties of, 3:472t Saturated aliphatic polycarboxylic acids physical properties of, 3:509t Saturated alkyl ethers toxic effects of, 3:598t Saturated hydrocarbons, 2:1 Saxol. See White oils Saxoline. See Petrolatum Saytex 102. See Decabromodiphenyl oxide Saytex 102E. See Decabromodiphenyl oxide Scaldip. See Diphenylamine Scanning electron microscopy, 1:707 Scarlet Base Ciba II. See 5-Nitro-o-toluidine Scarlet Base GG. See 2,5-Dichloroaniline Scarlet Base Irga II. See 5-Nitro-o-toluidine Scarlet Base NSP. See 5-Nitro-o-toluidine Scarlet G Base. See 5-Nitro-o-toluidine SCE rate. See Sister chromatid exchange (SCE) rate SCGE assay. See Single cell gel electrophoresis (SCGE) assay Schalstein. See Wollastonite Scientific Committee on Occupational Exposure Limit Values (SCOEL), 5:17 SDMH. See 1,2-Dimethylhydrazine SDS-PAGE, 1:449 SDS-polyacrylamide gel electrophoresis, 1:392 Sebacates toxicity of, 4:214t Sebacic acid. 3:523 chemical and physical properties, 3:524 exposure assessment, 3:524 guidelines of exposure, 3:524 production and use, 3:524 toxic effects

experimental studies, 3:524 human experience, 3:524 Sebacic acid, bis(2-ethylhexyl)ester. See Di(2-ethylhexyl) sebacate Sebacic acid, dibutyl ester. See Dibutyl sebacate Sebacic acid, diethyl ester. See Diethyl sebacate Sebacic acid, di(2-ethylhexyl) ester. See Di(2-ethylhexyl) sebacate Sebacic acid, dioctyl ester. See n-Dioctyl sebacate Sebacylic acid. See Sebacic acid Secondary acetate. See Cellulose acetate Selenastrum capricornutum, toxic effect of boron, 1:905 Selenium, 1:850 chemical and physical properties, 1:850, 1:851t compounds, 1:858 exposure assessment, 1:852 production and use, 1:850, 1:852 standards, regulations, or guidelines of exposure, 1:858 toxic effects, 1:852-853 carcinogenesis, 1:855 chronic and subchronic toxicity, 1:853-855 epidemiology studies, 1:857 experimental studies, 1:853 genetic and related cellular effect studies, 1:858 human experience, 1:856-858 neurological, pulmonary, skin sensitization, 1:858 reproductive and developmental effects, 1:855 used as dietary supplement and antidandruff shampoos, 1:852 Selenium hexafluoride, 1:859 chemical and physical properties, 1:851t, 1:859 experimental studies, 1:859 production and use, 1:859 standards, regulations, or guidelines of exposure, 1:859 toxic effects, 1:859 Selenium oxychloride, 1:859 chemical and physical properties, 1:851t, 1:860 production and use, 1:860 standards, regulations, or guidelines of exposure, 1:860 toxic effects, 1:860 Selinon. See 4,6-Dinitro-o-cresol Semiclosed system, 2:734 p-Semidine. See 4-Aminodiphenylamine Seneca oil. See Crude oil Sensitive mouse lymph node assay (SLNA), 1:447 Sensitization, 1:649 Sentry grain preservative. See Propionic acid Sentry grain preserver. See Propionic acid Sepiolite, 5:196 chemical and physical properties, 5:196 exposure assessment, 5:196 guidelines of exposure, 5:197 production and use, 5:196 toxicity, 5:196-197 Serotonin, 1:368 Sertoli cells, 1:394 Setacyl Diazo Navy R. See 3,3'-Dimethoxybenzidine Sex ratio, assessment, 1:903 Sextol. See Methylcyclohexanol Sexton. See Cyclohexanone Shawinigan process, 2:949 SHE cells. See Syrian hamster embryo (SHE) cells

Sheep red blood cells (SRBCs), 1:451 Shell 300. See Polystyrene Shellsol 140. See n-Nonane Sherolatum. See Petrolatum Shiftwork disorder (SWD), 6:351 Shiftworkers GI disorders, 6:353 alcohol/caffeine consumption, 6:352 Jet Lag vs. Shift Lag, 6:349t on-the-job performance, measurements, 6:347f rectal temperature, 6:342f sleep length, means and standard deviations, 6:345t sleep obtained, average hours, 6:343f social and family stress, 6:363 social disruption/domestic stress, 6:363 Shiftwork maladaptation syndrome (SMS), 6:350 Shiftwork-related cardiovascular disease development of, 6:355f Shiftwork scheduling issues approach to making schedule changes, 6:377 prevalence of, 6:370 rotating schedules, 6:369 circadian considerations, 6:371 entrainment considerations, 6:370-371 permanent shifts, 6:372 sleep debt considerations, 6:371-372 speed of rotation, 6:372 scheduling decisions, 6:374, 6:376 days off, 6:374 early morning starting times, 6:375 schedule predictability and flexibility, 6:375 worker preferences, 6:375-376 shifts length, 6:372 8 vs. 12 h shifts, 6:372-374 shift systems potential advantages and disadvantages, 6:374t types of, 6:369 Shiftwork tolerance, 6:367 ShiftWork tolerance, factors, 6:368t Shimose. See Picric acid Shinkolite. See Polymethyl methacrylate Shinnippon Fast Red GG Base. See 4-Nitroaniline; p-Nitroaniline Shinnippon Fast Red 3GL Base. See 4-Chloro-2-nitroaniline Sholex 6000c. See Polyethylene Short-term exposure limit (STEL), 1:643 Shotgun. See Acetic acid SIC-L(TM). See Tetrachloro silane SIDS. See Sudden infant death syndrome (SIDS) SilaneA151. See Vinyltriethoxy silane Silane, ethoxy-, trimethoxy. See Trimethylethoxy silane Silane, methyltrichloro-. See Methyltrichloro silane Silane, methyltriethoxy-. See Methyltriethoxy silane Silane, oxybis(trimethyl)-. See Hexamethyl disiloxane Silanes, 5:202t guidelines of exposure, 5:203 odor and warning properties, 5:203 toxicity, 5:203 Silane, tetraethoxy-. See Ethyl silicate Silane, triethoxypentyl-. See Amyltriethoxy silane

Silane,triethoxyvinyl-. See Vinyltriethoxy silane Silane, trimethylethoxy-. See Trimethylethoxy silane Silanol esters, 4:409 Silbar. See Polydimethyl silicones Silica epidemiological studies of, 5:190t Silica gel. See Amorphous silica Silica glass. See Amorphous silica Silica soot. See Amorphous silica Silicate, cement. See Portland cement Silicates. See Mica Silicic acid tetraethyl ester. See Ethyl silicate Silicic acid tetramethyl ester. See Ethyl silicate Silicon carbide, 5:200. See Silicon carbide chemical and physical properties, 5:200 exposure assessment, 5:200 guidelines of exposure, 5:201 production and use, 5:200 toxicity epidemiology studies, 5:201 experimental studies, 5:200-201 Silicon chloride. See Tetrachloro silane Silicon (IV) chloride. See Tetrachloro silane Silicon dioxide, 5:182 chemical and physical properties, 5:183, 5:183t exposure assessment, 5:183-185 guidelines of exposure, 5:192 pharmacokinetics, metabolism, and mechanisms carcinogenesis, 5:187-189 neurological, pulmonary, and skin sensitization, 5:189-192 silicosis, pathogenesis of, 5:186-187 production and use, 5:183 toxic effects, 5:185-186 Silicone, 4:903 chemical and physical properties, 4:903 environmental impact, studies, 4:904 guidelines of exposure, 4:904 production and use, 4:903-904 toxic effects, 4:904 Silicone oil. See Silicones Silicone oil, for oil baths. See Silicones Silicone oils. See Silicones Silicone rubber. See Polydimethyl silicones Silicone rubber, latex. See Polydimethyl silicones Silicones, 4:1025. See Silicone; Silicones chemical and physical properties, 4:1026 production and use, 4:1026 Silicon ethoxide. See Ethyl silicate Silicon halides, 5:202t odor and warning properties, 5:202 toxicity, 5:202 Silicon monocarbide. See Silicon carbide Silicon tetraethoxide. See Ethyl silicate Siloxane. See Silicone Silver chemical and physical properties, 1:76-77, 1:76t exposure assessment, 1:77-78 air, 1:78 background levels, 1:78-79

biomonitoring/biomarkers, 1:79-80 community methods, 1:79 workplace methods, 1:79 odor and warning properties, 1:77 production and use, 1:77 standards, regulations, or guidelines of exposure, 1:92 studies on environmental impact, 1:92-93 toxic effects, 1:80-82 experimental studies, 1:82-84 human experience, 1:84-92 Silver nitrate solutions, 1:81 Silver sulfadiazine, 1:85, 1:92 Silyl peroxides toxic effects, 4:590 Simazine, 2:850 chemical and physical properties, 2:850 environmental impact, studies, 2:854 exposure assessment, 2:850 guidelines of exposure, 2:854 production and use, 2:850 toxic effects, 2:850-854 Simethicone. See Polydimethyl silicones Single cell gel electrophoresis (SCGE) assay, 1:536 Sinox. See 4,6-Dinitro-o-cresol Sintering, 1:639 Sirlene. See Propylene glycol Sister chromatid exchanges (SCEs), 6:464 rate, 1:489, 1:527, 1:573, 1:664, 1:786 test, 2:966 Sk-chloral hydrate. See Chloral hydrate Skekhg. See Epichlorohydrin Skellysolve. See n-Pentane Skellysolve B. See n-Hexane Skin cytosol, 5:148 Skin exposures, 6:458 Skin, idealized section of, 5:77f Skin prick tests (SPT), 1:573 Skin tumorigenesis, 1:13, 1:14 Slag wool. See Mineral wool Sleep deprivation techniques, 6:362 Sleep disturbances, 6:351 Sleep-wake cycle, 6:362 Sleep-wake reversal studies, 6:344 Slimicide. See Acrolein SLNA. See Sensitive mouse lymph node assay Small-for-gestational-age (SGA), 1:662 Smoke/combustion gases, 6:399 combustion toxicity test methods, 6:409-410 fire death statistics, in U. S., 6:399-400 toxicant suppressants, 6:410-412 toxic gases generation, in fires adverse effects, 6:400-402 toxicity assessment animal exposures, 6:404 N-gas models, 6:405-409 predictive models, 6:404-405 primary toxic combustion gases, 6:405 seven-gas model, 6:407-409 six-gas model, 6:406-407

toxic potency vs. fire hazard vs. fire risk acute effects, 6:402-403 long-term/delayed effects, 6:403-404 Smoplastic-F. See Creosote SN 20. See Styrene-acrylonitrile (SAN) Sn-protoporphyrin IX (Sn-heme), 1:363 Soapstone. See Mica; Talc Socal aquatic solvent 3501. See Xylenes Sodium, 1:937 chemical and physical properties, 1:938 exposure assessment, 1:938 production and use, 1:938 toxic effects, 1:938-939 Sodium 1,4-bis(2-ethylhexyl) sulfosuccinate. See Dioctyl sodium sulfosuccinate Sodium bis(2-ethylhexyl) sulfosuccinate. See Dioctyl sodium sulfosuccinate Sodium bromate, 1:1091 chemical and physical properties, 1:1090t, 1:1091 exposure assessment, 1:1091 production and use, 1:1091 toxic effects, 1:1091-1092 Sodium carbonate, 1:939 chemical and physical properties, 1:939 exposure assessment, 1:939 production and use, 1:939 standards, regulations, and guidelines of exposure, 1:940 studies on environmental impact, 1:940 toxic effects, 1:939-940 Sodium carboxymethyl cellulose, 4:943 chemical and physical properties, 4:943 guidelines of exposure, 4:943 production and use, 4:943 toxic effects, 4:943 Sodium chlorate, 1:1079-1080 Sodium chloride, 1:1073 chemical and physical properties, 1:1074t production and use, 1:1073-1074 standards, regulations, or guidelines of exposure, 1:1074 toxic effects, 1:1074 Sodium chlorite, 1:1081 experimental studies, 1:1083 subchronic and chronic toxicity, 1:1083-1084 human exposure, 1:1083 Sodium cyanate chemical and physical properties, 2:950t-951t, 2:989 toxic effects, 2:989 Sodium cyanide chemical and physical properties, 2:949-952, 2:950t-951t exposure assessment, 2:952 exposure standards, 2:952 odor and warning properties, 2:952 production and use, 2:952 toxic effects. 2:952 Sodium derivative. See Sodium o-phenylphenate (SOPP) Sodium dicyanamide chemical and physical properties, 2:950t-951t, 2:987 production and use, 2:987 toxic effects, 2:987-988

Sodium di(2-ethylhexyl)sulfosuccinate. See Dioctyl sodium sulfosuccinate Sodium dioctyl sulfosuccinate. See Dioctyl sodium sulfosuccinate Sodiumdioctyl sulfosuccinate. See Dioctyl sodium sulfosuccinate Sodium 2-ethylhexylsulfosuccinate. See Dioctyl sodium sulfosuccinate Sodium formaldehyde bisulfite, 3:682 chemical and physical properties, 3:683 Sodium hydroxide, 1:940 chemical and physical properties, 1:940-941 exposure assessment, 1:941 production and use, 1:940-941 standards, regulations, or guidelines of exposure, 1:941 studies on environmental impact, 1:941 toxic effects, 1:941 Sodium hydroxymethanesulfonate. See Sodium formaldehyde bisulfite Sodium hypochlorite, 1:1080, 1:1084 experimental studies, 1:1084 acute toxicity, 1:1084-1085 genotoxicity, 1:1085 reproductive and developmental toxicology, 1:1085 subchronic and chronic toxicity, 1:1085 toxicokinetics, 1:1085-1086 human exposure, 1:1084 standards, regulations, or guidelines, 1:1086 Sodium-iodide symporter (NIS), 1:627 Sodium metaborate dihydrate, 1:913 chemical and physical properties, 1:913 exposure assessment, 1:913 production and use, 1:913 standards, regulations, or guidelines of exposure, 1:913 studies on environmental impact, 1:913 toxic effects, 1:913 Sodium metaborate tetrahydrate, 1:913 chemical and physical properties, 1:914 exposure assessment, 1:914 production and use, 1:914 standards, regulations, or guidelines of exposure, 1:914 studies on environmental impact, 1:914 toxic effects. 1:914 Sodium metasilicate, 1:943 chemical and physical properties, 1:943 exposure assessment, 1:944 production and use, 1:943 standards, regulations, and guidelines of exposure, 1:944 toxic effects, 1:944 Sodium metavanadate, 1:524 administration, 1:525 Sodium nitroprusside chemical and physical properties, 2:950t-951t, 2:991 production and use, 2:991 toxic effects, 2:991 Sodium o-phenylphenate (SOPP), 2:321 Sodium o-phenylphenoxide. See Sodium o-phenylphenate (SOPP) Sodium pentachlorophenate, 2:288-299 chemical and physical properties, 2:288 environmental impact, studies, 2:299 exposure assessment, 2:289-290

Sodium pentachlorophenate (Continued) guidelines of exposure, 2:298-299 production and use, 2:288-289 toxic effects, 2:290-298 acute toxicity studies, 2:291, 2:292 cellular effects studies, 2:295-296 epidemiology studies, 2:297 experimental studies, 2:290 human experience, 2:296 mouse long-term carcinogenicity bioassays, 2:294 pharmacokinetics, metabolism, and mechanisms, 2:293 rat long-term carcinogenicity bioassays, 2:295 Sodium pentachlorophenol. See Sodium pentachlorophenate Sodium pentachlorophenolate. See Sodium pentachlorophenate Sodium pentachlorophenoxide. See Sodium pentachlorophenate Sodium pentachlorphenate. See Sodium pentachlorophenate Sodium pentafluorostannite (NaSn₂F₅), 1:366 Sodium perborate monohydrate, 1:915 chemical and physical properties, 1:916 production and use, 1:916 standards, regulations, or guidelines of exposure, 1:916 studies on environmental impact, 1:916-917 toxic effects, 1:916 experimental studies, 1:916 Sodium perborate tetrahydrate, 1:914 chemical and physical properties, 1:914 production and use, 1:914-915 standards, regulations, or guidelines of exposure, 1:915 studies on environmental impact, 1:915 toxic effects, 1:915 experimental studies, 1:915 Sodium peroxide, 1:942 chemical and physical properties, 1:942 exposure assessment, 1:942 production and use, 1:942 standards, regulations, or guidelines of exposure, 1:942 toxic effects, 1:942 sodium o-phenylphenate (SOPP) chemical and physical properties, 2:321 environmental impact, studies, 2:325-326 exposure assessment, 2:322 production and use, 2:322 toxic effects, 2:322-325 Sodium pyrithione. See Pyridinethione Sodium salt. See Carboxymethylcellulose; Sodium ophenylphenate (SOPP) Sodium selenite, 1:860 chemical and physical properties, 1:851t, 1:860 experimental studies, 1:860 acute toxicity, 1:860 chronic and subchronic toxicity, 1:860 genetic and related cellular effect studies, 1:861 reproductive and developmental effects, 1:860-861 standards, regulations, or guidelines of exposure, 1:861 Sodium-sulfodi(2-ethylhexyl)-sulfosuccinate. See Dioctyl sodium sulfosuccinate Sodium tetraborate, 1:909 chemical and physical properties, 1:909 exposure assessment, 1:909

production and use, 1:909 standards, regulations, or guidelines of exposure, 1:910 studies on environmental impact, 1:910 toxic effects, 1:910 Sodium tetraborate decahydrate, 1:907 chemical and physical properties, 1:907 exposure assessment, 1:907-908 production and use, 1:907 standards, regulations, or guidelines of exposure, 1:908 studies on environmental impact, 1:908 toxic effects, 1:908 Sodium tetraborate pentahydrate, 1:908 chemical and physical properties, 1:908 exposure assessment, 1:909 production and use, 1:908 standards, regulations, or guidelines of exposure, 1:909 studies on environmental impact, 1:909 toxic effects, 1:909 Soft coal. See Coal Softwoods. See Wood dust SOL. See Polymethyl methacrylate Solactol. See Ethyl lactate Solar winter ban. See Propylene glycol Solfo Black B. See 2,4-Dinitrophenol Solfo Black BB. See 2,4-Dinitrophenol Solfo Black 2B Supra. See 2,4-Dinitrophenol Solfo Black G. See 2,4-Dinitrophenol Solfo Black SB. See 2,4-Dinitrophenol Solvent Yellow 2. See 4-Dimethylaminoazobenzene Somni SED. See Chloral hydrate Somnos. See Chloral hydrate Sonacide. See Glutaraldehyde Sontec. See Chloral hydrate Sonya Fast Red TR Base. See 4-Chloro-o-toluidine Sorbic acid. 3:547 chemical and physical properties, 3:547 guidelines of exposure, 3:549 production and use, 3:547 toxic effects experimental studies, 3:547-549 human experience, 3:549 trans, trans-Sorbic acid. See Sorbic acid Sorbic aldehyde. See Hexa-2,4-dienal Sorbistat. See Sorbic acid Sound defined, 6:79 measurement of, 6:80 frequency and period, 6:80 speed of sound, 6:80-81 wavelength, 6:81 Soup. See Nitroglycerin Species sensitivity distributions (SSDs), 1:905 Species-specific mechanistic, 6:486 Spectrolene Blue B. See 3,3'-Dimethoxybenzidine Spectrolene Red KB. See 5-Chloro-o-toluidine Spermatogenesis, 2:479 cessation of, 2:535 proteins secreted during, 2:522 significant impairment, 2:713

(S)-1-phenylethanol. See 1-Phenylethanol (S)-1-phenylethyl alcohol. See 1-Phenylethanol Spicewood oil. See Salicylates Spirit of ether nitrite. See Ethyl nitrite Spirits of turpentine. See Turpentine Spirits of wine. See Ethanol Spirogermanium, 1:360 Sporicidin. See Glutaraldehyde Spotting naphtha. See Petroleum spirits SPT. See Skin prick tests Squamous cell carcinomas (SCC), 1:694, 6:183 SR 230. See Diethylene glycol diacrylate SRBCs. See Sheep red blood cells Sr:Ca ratio in bone, 1:153 ST 100. See Terbufos Stabilene. See Polypropylene glycol butyl ethers Stabilene fly repellent. See Polypropylene glycol butyl ethers Stabilizator AR. See N-Phenyl-2-naphthylamine Stabilizer AR. See N-Phenyl-2-naphthylamine Stable Red KB Base. See 5-Chloro-o-toluidine "Stalinon" poisoning, 1:368 Stamylan 1700. See Polyethylene Standardized mortality rates, 2:962 Standardized mortality ratios (SMRs), 1:404, 1:488, 1:642, 1:643, 1:798, 6:453 Stanolind. See Petrolatum Stearex beads. See Stearic acid Stearic acid. 3:505 chemical and physical properties, 3:506 exposure assessment, 3:506 guidelines of exposure, 3:507-508 production and use, 3:506 toxic effects experimental studies, 3:506-507 human experience, 3:507 Stearophanic acid. See Stearic acid Stearylamine. See Octadecylamine Steatite talc. See Talc Stellon Pink. See Polymethyl methacrylate Sternite 30. See Polystyrene Stilbene. 2:236 chemical and physical properties, 2:236 guidelines of exposure, 2:237 production and use, 2:236-237 Stirolo. See Styrene Stishovite. See Silicon dioxide Stoddard solvent, 5:346. See also Petroleum spirits chemical and physical properties, 5:346 exposure assessment, 5:346 guidelines of exposure, 5:347 production and use, 5:346 toxic effects, 5:346-347 Stop-flow techniques, 1:388 Streptococcus pneumoniae bacteria scanning electron micrograph of, 5:513f Stron. See Styrene Strontium, 1:151 biomonitoring/biomarkers, 1:152-153 chemical and physical properties, 1:152

exposure assessment, 1:152 production and use, 1:152 standards, regulations, or guidelines of exposure, 1:154 toxic effects, 1:153 experimental studies, 1:153 human experience, 1:154 Strontium-90, 1:17, 1:18 Structured clinical interview (SCID), 6:365 Styrafoil. See Polystyrene Styragel. See Polystyrene Styrallyl alcohol. See 1-Phenylethanol Styreen. See Styrene Styrene, 1:58, 2:221, 2:222 chemical and physical properties, 2:222 exposure assessment, 2:223 guidelines of exposure, 2:226 production and use, 2:222-223 subacute and chronic exposure, 2:224 toxic effects, 2:223-226 toxicity of, 2:223 Styrene-acrylonitrile (SAN), 4:926 chemical and physical properties, 4:926 production and use, 4:926 Styrene-acrylonitrile copolymer. See Styrene-acrylonitrile (SAN) Styrene-acrylonitrile polymer. See Styrene-acrylonitrile (SAN) Styrene-butadiene, 4:893 chemical and physical properties, 4:894 guidelines of exposure, 4:895 production and use, 4:894 toxic effects, **4:**894-895 Styrene-butadiene copolymer. See Styrene-butadiene Styrene epoxide. See Styrene oxide Styrene glycol, 4:630 chemical and physical properties, 4:630 exposure assessment, 4:630 production and use, 4:630 toxic effects experimental studies, 4:630-631 Styrene latex. See Polystyrene Styrene monomer. See Styrene Styrene oxide, 4:456 chemical and physical properties, 4:457 exposure assessment, 4:457 guidelines of exposure, 4:460 production and use, 4:457 toxic effects experimental studies, 4:457-459 Styrene-7,8,-oxide. See Styrene oxide Styrene oxide-d8. See Styrene oxide Styrene polymers. See Polystyrene Styrex. See Polystyrene Styrocell pm. See Polystyrene Styrofoam. See Polystyrene Styrol. See Styrene Styrole. See Styrene Styrolene. See Styrene Styropor. See Styrene Styryl oxide. See Styrene oxide Subcutaneous (SC) injections, 1:528

Suberane. See Cycloheptane Suberic acid. 3:521 chemical and physical properties, 3:522 exposure assessment, 3:522 guidelines of exposure, 3:522 production and use, 3:522 toxic effects experimental studies, 3:522 human experience, 3:522 Submersible decompression chamber (SDC), 6:288 Substantia nigra pars reticularis (SNr), 1:612 Substituted glycerin, polyglycidyl ether, 4:507 chemical and physical properties, 4:507 exposure assessment, 4:507 guidelines of exposure, 4:509 production and use, 4:507 toxic effects experimental studies, 4:507-509 human experience, 4:509 Substituted uracils, 2:822 carcinogenesis, 2:825 chemical and physical properties, 2:823 environmental impact, studies on, 2:826-827 exposure assessment, 2:823 genetic and related cellular effects studies, 2:825 human experience, 2:826 production and use, 2:823 standards, regulations, or guidelines of exposure, 2:826 toxic effects, 2:823 acute toxicity, 2:823-825 chronic and subchronic toxicity, 2:824 experimental studies, 2:823 genetic toxicity tests on, 2:825 pharmacokinetics, metabolism, and mechanisms, 2:824-825 reproductive and developmental, 2:825 Succinaldehyde, 3:705 chemical and physical properties, 3:705 toxic effects, 3:705 Succinaldehyde disodium bisulfite, 3:705 Succinic acid, 3:513 chemical and physical properties, 3:513 exposure assessment, 3:513 guidelines of exposure, 3:514 production and use, 3:513 toxic effects experimental studies, 3:513-514 human experience, 3:514 Succinic acid, bis(2-(hexyloxy)ethyl) ester. See Di(2hexyloxyethyl) succinate Succinic acid, dibutyl ester. See n-Dibutyl succinate Succinic acid di-n-butyl ester. See n-Dibutyl succinate Succinic acid, diethyl ester. See Diethyl succinate Succinic acid, di-2-hexyloxyethyl ester. See Di(2-hexyloxyethyl) succinate Succinic acid, dipropyl ester. See Dipropyl succinate Succinic acid methylene-diethyl ester. See Diethyl itaconate Succinic acid peroxide. See Succinyl peroxide Succinic acid sulfo-1,4-bis(2-ethylhexyl)ester, sodium salt. See Dioctyl sodium sulfosuccinate

Succinic dehydrogenase-cytochrome oxidase system, 1:830 Succinonitrile chemical and physical properties, 2:950t-951t, 2:972 experimental studies, 2:972-973 exposure standards, 2:973 human experience, 2:972 production and use, 2:972 toxic effects, 2:972 Succinoyl peroxide, 4:545 chemical and physical properties, 4:545 exposure assessment, 4:546 production and use, 4:546 toxic effects, 4:546 Succinyl peroxide, 4:545 Sucol b. See 1,4-Butanediol Sudden infant death syndrome (SIDS), 1:494 Sugai Fast Scarlet G Base. See 5-Nitro-o-toluidine Sulfate turpentine. See Turpentine N-Sulfenyl phthalimide fungicides, 2:751 Sulfides, 4:1058 Sulfo-butanedioic acid. See Dioctyl sodium sulfosuccinate sulfones, formations, 4:1061 sulfonium chlorides, formations, 4:1061 Sulfonyl peroxides, 4:588 Sulfosuccinic acid bis(2-ethylhexyl)ester sodium salt. See Dioctyl sodium sulfosuccinate sulfoxides, formations, 4:1061 Sulfur. 1:864 chemical and physical properties, 1:865, 1:865t exposure assessment, 1:866 production and use, 1:865-866 toxic effects, 1:866 Sulfur dioxide, 1:866 chemical and physical properties, 1:865t, 1:866 exposure assessment, 1:867 production and use, 1:866, 1:867 standards, regulations, or guidelines of exposure, 1:868 toxic effects, 1:867 acute toxicity, 1:867 carcinogenesis, 1:867-868 epidemiology studies, 1:868 Sulfur fluorides, 1:1049 standards for exposure, 1:1051t Sulfur hexafluoride, 1:1049 Sulfuric acid, 1:876 chemical and physical properties, 1:865t, 1:877 exposure assessment, 1:878 production and use, 1:877-878 standards, regulations, or guidelines of exposure, 1:878 toxic effects, 1:878 acute toxicity, 1:878 carcinogenesis, 1:878 chronic and subchronic toxicity, 1:878 experimental studies, 1:878 human experience, 1:878 neurological, pulmonary, and skin sensitization, 1:878 Sulfuric ether. See Diethyl ether Sulfur monochloride, 1:875 chemical and physical properties, 1:865t, 1:875

exposure assessment, 1:875 air, 1:875-876 production and use, 1:875 standards, regulations, or guidelines of exposure, 1:876 toxic effects, 1:876 Sulfur mustards animal and human studies, 4:1069 chemical and physical properties, 4:1068-1069 production and uses, 4:1069 Sulfur oxides, 1:866 Sulfur tetrafluoride, 1:1049-1050 chemical and physical properties, 1:1050 exposure assessment, 1:1050 particulate fluorides or/in combination with gaseous fluoride, 1:1051-1052 production and use, 1:1050 standards, regulations, or guidelines for exposure, 1:1051 toxic effects, 1:1050 experimental studies, 1:1050 human experience, 1:1051 LC₅₀ values for animals exposed to, 1:1050t Sumicure M. See 4,4'-Methylenedianiline Sumiplex LG. See Polymethyl methacrylate Sun stroke. See Heatstroke Superacryle AE. See Polymethyl methacrylate Superlysoform. See Formaldehyde Supertah. See Coal tar Suprachiasmatic nuclei (SCN), 6:336 circadian system central rhythm-generating system, 6:340 Suprathen. See Polyethylene Surgical Simplex. See Polymethyl methacrylate Sweet birch oil. See Salicylates Sweet spirit of niter. See Ethyl nitrite Sylodex. See Asbestos sym-Dichlorotetrafluoroethane. See 1,2,-Dichloro-1,1,2,2tetrafluoroethane Symmetrical dimethylhydrazine. See 1,2-Dimethylhydrazine Symulon Red 3GL Salt. See 4-Chloro-2-nitroaniline Symulon Scarlet G Base. See 5-Nitro-o-toluidine Syncelose. See Methyl cellulose Synpor. See Cellulose nitrate Synthesis processes, 2:948 Synthetic polymers, 4:879 characteristics, 4:881 classification, 4:879-881 environmental impact, 4:883 exposure assessment, 4:881-883 physical constants, 4:885 polymer science, advances, 4:883-885 toxicology, 4:881 Synthetic wintergreen oil. See Salicylates Syrian-Golden hamsters, 1:376 Syrian hamster embryo (SHE) cells, 1:377, 1:572, 1:660, 1:667 transformation. 1:395

Tabular spar. *See* Wollastonite Talc, **5:**257 chemical and physical properties, **5:**257–258

exposure assessment, 5:259 guidelines of exposure, 5:268-269 older mortality studies, 5:266t-267t older nonmalignant respiratory disease, morbidity studies, 5:263t-265t production and use, 5:258-259 toxic effects, 5:259 experimental studies, 5:259-262 human experience, 5:262-268 Talc mineral, pure molecular structure of, 5:258f TAME. See t-Amyl methyl ether Tantalum acute toxicity, 1:550, 1:552, 1:554 carcinogenesis, 1:552, 1:553, 1:554 chemical and physical properties odor and warning properties, 1:546 chemical identity, 1:547t chronic and subchronic toxicity, 1:550-551, 1:552, 1:554 clinical cases, 1:552-554 exposure assessment, 1:549-550 in air, 1:549 in background levels, 1:549 biomonitoring/biomarkers, 1:549-550 in blood, 1:549 community methods, 1:549 in urine, 1:549 workplace methods, 1:549 genetic and related cellular effect studies, 1:552, 1:553, 1:554 pharmacokinetics, metabolism, and mechanisms, 1:551-552, 1:553, 1:554 absorption, 1:551 distribution, 1:551 metabolism, 1:551-552 production and use, 1:546-548 regulations and guidelines, 1:554t reproductive and developmental studies, 1:552, 1:553, 1:554 standards, regulations, or guidelines of exposure, 1:554 studies on environmental impact, 1:554 toxic effects, 1:550-554, 1:550t epidemiology studies, 1:554 experimental studies, 1:550-552 human experience, 1:552-554 Tardex 100. See Decabromodiphenyl oxide Tar distillation typical fractions from, 5:327t Tartaric acid, 3:516 chemical and physical properties, 3:516 exposure assessment, 3:516 guidelines of exposure, 3:517 production and use, 3:516 toxic effects experimental studies, 3:516-517 human experience, 3:517 Task-based exposure assessment, 1:386 TBA. See tert-Butyl alcohol 2,3,6-TBA. See Dibenzoyl peroxide TBP. See Di-t-butyl peroxide; Tributyl phosphate TBPGE. See p-(t-Butyl)phenyl glycidyl ether

TBTO exposure, 1:372 TBTP. See Tribufos 1,1,2,2-TCA. See Tetrachloroethane-1,1,2,2 TCBA. See Dibenzoyl peroxide 2,3,7,8-TCBD. See 2,3,7,8-Tetrachlorodibenzo-p-dioxin 2,3,7,8-TCDD. See 2,3,7,8-Tetrachlorodibenzo-p-dioxin 2,3,7,8-TCDD body burden information, 3:234t TCE. See Trichloroethylene 1,1,1-TCE. See Methyl chloroform TCEP. See Trichloroethyl phosphate TCLP extraction fluid 2. See Acetic acid TCP. See Tri-o-cresyl phosphate 3T3 cytotoxicity screening tests, 2:729 TDA. See 2,4-Toluenediamine 2,4-TDA. See 2,4-Toluenediamine 2,5-TDA. See 2,5-Toluenediamine o-TDA. See 2,3-Toluenediamine TDAC. See Triethylene glycol diacetate TD_{Lo}, 5:144t TDNT. See Dinitrotoluene TEA. See Triethylamine Teaberry oil. See Salicylates Tears Naturale. See Hydroxypropyl methylcellulose Tebuirimphos. See Phostebupirim Tebupirimfos. See Phostebupirim Tech pet f. See White oils Tecsol. See Ethanol Tecza. See Triethylenetetramine TEG. See Triethylene glycol TEGDN. See Triethylene glycol dinitrate Tegooleic 130. See Oleic acid Tegostearic 254. See Stearic acid Tegostearic 272. See Stearic acid Tegosteric 255. See Stearic acid TEHT. See Tris(2-ethylhexyl) trimellitate Tellurium chemical and physical properties, 1:861, 1:861t compounds, 1:863 exposure assessment, 1:862 air, 1:862 epidemiology studies, 1:863 experimental studies, 1:862-863 production and use, 1:862 standards, regulations, or guidelines of exposure, 1:863 Tellurium-containing catalyst, odor problem, 1:863 Tellurium hexafluoride, 1:863 exposure assessment, 1:864 physical and chemical properties, 1:863 production and use, 1:863-864 standards, regulations, or guidelines of exposure, 1:864 toxic effects, 1:864 TEM. See Triethylenemelamine Temefos. See Temephos Temephos, 4:1194 chemical and physical properties, 4:1194 exposure assessment, 4:1195 guidelines of exposure, 4:1197 production and use, 4:1194 toxic effects

experimental studies, 4:1195-1197 human experience, 4:1197 Tempephos. See Temephos Temperature increases within the human body, 6:100-101 safety for ultrasound use, 6:101-102 Temperature-resistance coefficient, 1:700 Tenaplas. See Polyethylene Tenox P grain preservative. See Propionic acid Tensol 7. See Polymethyl methacrylate TEOS. See Ethyl silicate TEP. See Triethyl phosphate TEPA. See Tetraethylenepentamine Teratogenesis, due to tellurium, 1:863 Terbufos, 4:1197 chemical and physical properties, 4:1197 exposure assessment, 4:1198 guidelines of exposure, 4:1200 production and use, 4:1197 toxic effects, 4:1198 experimental studies, 4:1198-1200 human experience, 4:1200 Terebenthine terpentin oel. See Turpentine Terephthalates, 4:315 Terephthalic acid, bis(2-ethylhexyl) ester. See Di(2-ethylhexyl) terephthalate Terephthalic acid 1,4-butanediol polymer. See Polybutylene terephthalate (PBT) Terephthalic acid dimethyl ester. See Dimethyl terephthalate Terephthalic acid-ethylene glycol polyester. See Polyethylene terephthalate Terephthalic acid methyl ester. See Dimethyl terephthalate Tereton. See Methyl acetate Ternary salts of alkali metals containing oxygen, 1:1079 Terpene. See Turpentine Terphenyl, 2:237 chemical and physical properties, 2:237 exposure assessment, 2:237 guidelines of exposure, 2:239 production and use, 2:237 toxic effects, 2:237-239 1,3-Terphenyl. See Terphenyl 1,4-Terphenyl. See Terphenyl Terpodiene. See Limonene δ -1,8-terpodiene. See Limonene Terrachlor. See Pentachloronitrobenzene Terraclor. See Pentachloronitrobenzene Terrafun. See Pentachloronitrobenzene Tertiary-butyl peracetate. See t-Butyl peroxyacetate Tertral D. See 1,4-Phenylenediamine Tertral G. See 2,4-Toluenediamine Tertral P Base. See 4-Aminophenol 1,4-Tertramethylene. See 1,4-Butanediol Tertrosulfur Black PB. See 2,4-Dinitrophenol Tertrosulfur PBR. See 2,4-Dinitrophenol Terulan KP 2540. See Styrene-acrylonitrile (SAN) Testicular atrophy, 1:271, 2:753 Testosterone 15α -hydroxylase activity, **1**:830

Tetan. See Tetranitromethane 1,4,7,10-Tetraazadecane. See Triethylenetetramine Tetrabromoacetylene, 1, 2, Tetrabromoethane-1 Tetrabromobisphenol A-based epoxy resins (TBBAER). See Brominated bisphenol A, diglycidyl ethers Tetrabromobisphenol A diglycidyl ether (TBBADGE). See Brominated bisphenol A, diglycidyl ethers Tetrabromoethane-1,1,2,2, 3:111 chemical and physical properties, 3:111 exposure assessment, 3:111 guidelines of exposure, 3:113 production and use, 3:111 toxic effects, 3:111 experimental studies, 3:112-113 human experience, 3:113 1,1,2,2-Tetrabro-moethylene, 1, 2, Tetrabromoethane-1 Tetrabromomethane. See Carbon tetrabromide 2,3,7,8-tetraCDD. See 2,3,7,8-Tetrachlorodibenzo-p-dioxin Tetrachlooretheen. See Tetrachloroethylene Tetrachloraethen. See Tetrachloroethylene Tetrachlorobenzene, 3:341 chemical and physical properties, 3:341 guidelines of exposure, 3:343 production and use, 3:341 toxic effects experimental studies, 3:341-342 human experience, 3:342 Tetrachlorocarbon. See Carbon tetrachloride 2,3,7,8-Tetrachlorodibenzo-1,4-dioxin. See 2,3,7,8-Tetrachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzo[b,e][1,4]dioxin. See 2,3,7,8-Tetrachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzo-p-dioxin, 3:231 chemical and physical properties, 3:231-232 environmental impact, studies, 3:240 exposure assessment, 3:233-234 guidelines of exposure, 3:239-240 production and use, 3:232-233 toxic effects cachexia, 3:234 endocrine effects. 3:234 experimental animals, 3:234-235 experimental studies, 3:235-237 human experience, 3:237-239 immunological effects, 3:234 mortality, 3:234 skin, 3:234 2,3,7,8-Tetrachlorodibenzo-para-dioxin. See 2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,1,1,2-Tetrachloro-2,2-difluoroethane, 3:370. See 1,1,1,2-Tetrachloro-2,2-difluoroethane chemical and physical properties, 3:370 environmental impact, studies, 3:371 exposure assessment, 3:370 guidelines of exposure, 3:371 production and use, 3:370 toxic effects, 3:370-371 1,1,2,2-Tetrachlorodifluoroethane. See 1,1,2,2-Tetrachloro-1,2difluoroethane

1,1,2,2-Tetrachloro-1,2-difluoroethane, 3:369. See 1,1,2,2-Tetrachloro-1.2-difluoroethane chemical and physical properties, 3:369 environmental impact, studies, 3:370 exposure assessment, 3:369 guidelines of exposure, 3:370 production and use, 3:369 toxic effects, 3:369 experimental studies, 3:369-370 Tetrachloroethane-1,1,2,2, 3:82 chemical and physical properties, 3:82 exposure assessment, 3:82-83 guidelines of exposure, 3:87 production and use, 3:82 toxic effects, 3:83 experimental studies, 3:84-86 human experience, 3:86-87 sym-Tetrachloroethane. See Tetrachloroethane-1,1,2,2 Tetrachloroethene. See Tetrachloroethylene 1,1,2,2-Tetrachloroethene. See Tetrachloroethylene Tetrachloroethylene, 3:201 chemical and physical properties, 3:201-202 environmental impact, studies, 3:209 exposure assessment, 3:202-203 guidelines of exposure, 3:209 production and use, 3:202 toxic effects experimental studies, 3:203-207 human experience, 3:207-209 1,1,2,2-Tetrachloroethylene. See Tetrachloroethylene Tetrachloromethane. See Carbon tetrachloride 2,3,4,5-Tetrachlorophenol, 2:304 2,3,4,6-Tetrachlorophenol, 2:304 2,3,5,6-Tetrachlorophenol, 2:304 chemical and physical properties, 2:305 ecotoxicological properties, 2:310 environmental impact, studies, 2:309-310 exposure assessment, 2:305 guidelines of exposure, 2:309 production and use, 2:305 toxic effects. 2:305 carcinogenicity, 2:308 cellular effects studies, 2:309 experimental studies, 2:305 human experience, 2:309 reproductive and developmental, 2:307 2,4,5,6-Tetrachlorophenol. See 2,3,4,6-Tetrachlorophenol Tetrachloro silane, 4:400 Tetrachlorosilane. See Tetrachloro silane Tetrachloro silane chemical and physical properties, 4:404 odor and warning properties, 4:404 production and use, 4:404 studies on environmental impact, 4:404 toxic effects, 4:404 acute toxicity, 4:404 epidemiology studies, 4:404 human experience, 4:404 Tetrachlorosilicon. See Tetrachloro silane

Tetrachlorvinphos, 4:1200 chemical and physical properties, 4:1201 exposure assessment, 4:1201 guidelines of exposure, 4:1203 production and use, 4:1201 toxic effects experimental toxicity, 4:1201-1202 human experience, 4:1202-1203 Tetracloroetene. See Tetrachloroethylene Tetradecane, 2:45 chemical and physical properties, 2:46 exposure assessment, 2:46 guidelines of exposure, 2:47 production and use, 2:46 toxic effects. 2:46 n-Tetradecane. See Tetradecane Tetradecanoic acid. See Myristic acid Tetradecyl mercaptan, 4:1053-1054 Tetraethoxysilane. See Ethyl silicate Tetraethoxysilicon. See Ethyl silicate Tetraethylene glycol, 4:607 chemical and physical properties, 4:607 exposure assessment, 4:607 production and use, 4:607 toxic effects, **4:**607–608 Tetraethylene glycol diethyl ether, 4:752 chemical and physical properties, 4:752 guidelines of exposure, 4:752 toxic effects experimental studies, 4:752 Tetraethylene glycol monophenyl ether, 4:751 chemical and physical properties, 4:751 toxic effects, 4:752 Tetraethylene glycol monovinylethyl ether, 4:751 chemical and physical properties, 4:751 guidelines of exposure, 4:751 toxic effects, 4:751 Tetraethylenepentamine, 2:491 chemical and physical properties, 2:491 guidelines of exposure, 2:491 production and use, 2:491 toxic effects, 2:491 Tetraethyl lead (TEL), 1:382, 1:413, 1:414 metabolism, 1:415 Tetraethyl orthosilicate. See Ethyl silicate Tetraethyl silicate. See Ethyl silicate Tetrafenphos. See Temephos Tetrafinol. See Carbon tetrachloride 1,1,1,2-Tetrafluoroethane, 3:402 chemical and physical properties, 3:402 environmental impact, studies, 3:405 exposure assessment, 3:403 guidelines of exposure, 3:405 production and use, 3:402-403 toxic effects experimental studies, 3:403-404 human experience, 3:404 Tetrafluoroethyleneethylene copolymer. See Ethylene tetrafluoroethylene copolymer

Tetraform. See Carbon tetrachloride Tetraglycol. See Tetraethylene glycol Tetrahydrate, as bleaching agent, 1:914 1,2,3,4-Tetrahydrobenzocyclohexane. See Tetralin Tetrahydro-1,4-dioxin. See Dioxane Tetrahydro-2-furanmethanol, 4:35 chemical and physical properties, 4:35 production and use, 4:35 standards, regulations, or guidelines of exposure, 4:36 toxic effects, 4:35 acute toxicity, 4:35 carcinogenesis, 4:36 chronic and subchronic toxicity, 4:35, 4:36 experimental studies, 4:35 genotoxicity, 4:36 reproductive and developmental, 4:36 Tetrahydrofurfuryl alcohol. See Tetrahydro-2-furanmethanol Tetrahydro-2-furylmethanol. See Tetrahydro-2-furanmethanol Tetrahydrogeraniol. See 3,7-Dimethyl-1-octanol 1,2,3,4-Tetrahydronaphthalin. See Tetralin 1,2,3,4-Tetrahydro-1-naphthyl hydroperoxide. See Tetralin hydroperoxide Tetrahydrophthalimide (THPI), 2:753 Tetrahydrostyrene. See 1-Vinylcyclohex-1-ene 1,2,3,4-Tetrahydrostyrene. See 4-Vinylcyclohexene Tetral EG. See 3-Aminophenol Tetralin. 2:132 chemical and physical properties, 2:132 environmental impact, studies, 2:135 exposure assessment, 2:133 guidelines of exposure, 2:135 production and use, 2:132 toxic effects, 2:133-135 Tetralin hydroperoxide, 4:583 chemical and physical properties, 4:584 exposure assessment, 4:584 production and use, 4:584 toxic effects, 4:584 Tetralite. See Tetryl Tetramethoxysilane. See Ethyl silicate 1,2,3,4-Tetramethylbenzene. See Prehnitine 1,2,3,5-Tetramethylbenzene. See Isodurene 1,2,4,5-Tetramethylbenzene. See Durene 1,1,4,4-Tetramethyl-1,4-butanediyl ester. See 2,5-Dimethyl-2,5di-(2-ethylhexanoylperoxy) hexane 1,1,3,3-Tetramethylbutyl hydroperoxide, 4:583 chemical and physical properties, 4:583 exposure assessment, 4:583 production and use, 4:583 toxic effects, 4:583 1,1,3,3-Tetramethylbutyl peroxyphenoxyacetate, 4:557 chemical and physical properties, 4:557 exposure assessment, 4:557 toxic effects, 4:557 Tetramethylene. See Cyclobutane Tetramethylenediamine, 2:485 chemical and physical properties, 2:485 guidelines of exposure, 2:486

production and use, 2:485 toxic effects, 2:485-486 Tetramethylene-1,4-diol. See 1,4-Butanediol Tetramethylene glycol. See 1,4-Butanediol 1,4-Tetramethylene glycol. See 1,4-Butanediol 1,1,2,2-Tetramethylethane. See 2,3-Dimethylbutane Tetramethyl lead (TML), 1:382, 1:413, 1:414 Tetramethylmethane. See 2,2-Dimethylpropane Tetramethyl orthosilicate. See Ethyl silicate; Methyl silicate Tetramethyl silicate. See Ethyl silicate 1,1,4,4-Tetramethyltetramethylene ester. See 2,5-Dimethyl-2,5-di-(2-ethylhexanoylperoxy) hexane Tetramethyl O,O'-thiodi-p-phenylene phosphorothioate. See Temephos *O*,*O*,*O*', *O*'-Tetramethyl *O*,*O*'-(thiodi-4,1-phenylene) phosphorothioate. See Temephos O, O, O', O'-Tetramethyl-O, O' thiodi-*p* phenylene phosphorothioate. See Temephos Tetranitromethane, 2:357 properties of, 2:352 Tetranitromethane (TNM) chemical and physical properties, 2:357 exposure assessment, 2:357 guidelines of exposure, 2:359 production and use, 2:357 toxic effects, 2:357-359 1,3,5,7-tetranitro-1,3,5,7-tetraazacyclooctane. See Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine Tetraphene. See Benz[a]anthracene Tetraphosphorus trisulfide, 1:846 chemical and physical properties, 1:842t, 1:846 production and use, 1:846 toxic effects, 1:846 Tetrasol. See Carbon tetrachloride Tetrochloroethane. See Tetrachloroethylene Tetryl, 2:550, 2:628 chemical and physical properties, 2:551, 2:628 exposure assessment, 2:551, 2:628 guidelines of exposure, 2:551, 2:628 production and use, 2:551, 2:628 toxic effects, 2:551, 2:628 2,4,6-Tetryl. See Tetryl Tetryl formate. See Isobutyl formate TET, toxic symptoms, 1:360 Textile oils, 5:352 TGA 2. See Diethylene glycol diacrylate T-GAS. See Ethylene oxide TGBE. See Triethylene glycol mono-n-butyl ether TGME. See Triethylene glycol monoethyl ether Thallium, 1:302 chemical and physical properties, 1:302-303 experimental studies, 1:305 acute toxicity, 1:305-306 carcinogenesis, 1:307 chronic and subchronic toxicity, 1:306 neurological, pulmonary, and skin sensitization, 1:307 pharmacokinetics, metabolism, and mechanisms, 1:306 reproductive and developmental, 1:307 exposure assessment, 1:304-305

human experience, 1:307 clinical cases, 1:307-309 epidemiology studies, 1:310-311 production and use, 1:303-304 standards, regulations, or guidelines of exposure, 1:311-312 studies on environmental impact, 1:312-314 toxic effects, 1:305 Thallium carbonate, 1:333 chemical and physical properties, 1:334 epidemiology studies, 1:335 human experience, 1:335 production and use, 1:334 standards, regulations, or guidelines of exposure, 1:335 studies on environmental impact, 1:335 toxic effects, 1:334-335 Thallium(I) acetate, 1:328 chemical and physical properties, 1:329 experimental studies, 1:329 acute toxicity, 1:329 chronic and subchronic toxicity, 1:329-330 genetic and related cellular effects studies, 1:331 neurological, pulmonary, and skin sensitization, 1:331-332 pharmacokinetics, metabolism, and mechanisms, 1:330-331 reproductive and developmental, 1:331 human experience, 1:332 clinical cases, 1:332-333 standards, regulations, or guidelines of exposure, 1:333 production and use, 1:329 studies on environmental impact, 1:333 toxic effects, 1:329 Thallium(III) oxide, 1:314 chemical and physical properties, 1:314 human experience, 1:315-316 production and use, 1:314 standards, regulations, or guidelines of exposure, 1:316 toxic effects, 1:314-315 Thallium(I) sulfate, 1:316 chemical and physical properties, 1:316-317 experimental studies acute toxicity, 1:317-318 carcinogenesis, 1:321 chronic and subchronic toxicity, 1:318 genetic and related cellular effects studies, 1:321 neurological, pulmonary, and skin sensitization, 1:321-322 pharmacokinetics, metabolism, and mechanisms, 1:318-321 human experience, 1:322 clinical cases, 1:322-326 epidemiology studies, 1:326-328 production and use, 1:317 standards, regulations, or guidelines of exposure, 1:328 studies on environmental impact, 1:328 toxic effects, 1:317 Thallium nitrate, 1:335-336 chemical and physical properties, 1:336 human experience, 1:338 clinical cases. 1:338-339 production and use, 1:336 standards, regulations, or guidelines of exposure, 1:339 studies on environmental impact, 1:339-340

Thallium nitrate (Continued) toxic effects. 1:336 genetic and related cellular effects studies, 1:338 pharmacokinetics, metabolism, and mechanisms, 1:336-337 reproductive and developmental, 1:337-338 Thallotoxicosis, 1:326, 327 T-helper lymphocyte, 1:529 Theoretical dose-response curves, 6:483f Theraderm. See Dibenzoyl peroxide Thermal black. See Carbon black Thermal capacitance, 6:43-44 Thermal decomposition, of sodium azide (NaN₃), 1:938 Thermal factors, 6:13 activity, 6:14 climate, 6:13 air temperature, 6:13 humidity, 6:13 mean radiant temperature, 6:13 wind, 6:13 clothing, 6:14 metabolic energy production associated with different types of work, 6:14t Thermal insulation of materials and their roles, 6:48-49 Thermal ionization mass spectrometry (TIMS), 1:773, 1:774 Thermal Oxide Reprocessing Plant (THORP), 1:456 Thermoregulation, 6:101 Thermoregulatory abilities gender factor, 6:70-71 Thinners, 5:348 chemical and physical properties, 5:348 exposure assessment, 5:348 guidelines of exposure, 5:348 production and use, 5:348 toxic effects, 5:348 *O*,*O*'-(Thiodi-4,1-phenylene)bis(*O*,*O*'-dimethylphosphorothioate). See Temephos O,O'-(Thiodi-4,1-phenylene)phosphorothioic acid, O,O,O',O'tetramethyl ester. See Temephos Thiofaco m-50. See Monoethanolamine Thiomalic acid, 3:515 chemical and physical properties, 3:515 exposure assessment, 3:515 guidelines of exposure, 3:516 production and use, 3:515 toxic effects, 3:515 experimental studies, 3:515-516 human experience, 3:516 2-Thiomalic acid. See Thiomalic acid Thionyl chloride, 1:876 chemical and physical properties, 1:876, 865t exposure assessment, 1:876 production and uses, 1:876 standards, regulations, or guidelines of exposure, 1:876 toxic effects, 1:876 Thiophanate-methyl, 2:760 carcinogenesis, 2:768 chemical and physical properties, 2:760 environmental impact studies, 2:770-771 exposure assessment, 2:761

exposure standards, 2:770 genetic and cellular effects, 2:768-770 odor and warning properties, 2:760 pharmacokinetics, metabolism, and mechanisms, 2:764-765 production and use, 2:761 reproductive and developmental effects, 2:765-768 toxic effects acute toxicity, 2:761-762 experimental studies, 2:761-770 human experience, 2:770 subchronic and chronic toxicity, 2:762-764 Thiophosphoric acid 2-isopropyl-4-methyl-6- pyrimidyl diethyl ester. See Diazinon n-Thiopropyl alcohol. See Propanethiol Thoracic particulate matter (TPM), 5:81 Thorium-232, 1:4 Thorium/thorium compounds acute and chronic exposures, 1:806 carcinogenesis and genotoxicity, 1:806 catalyst, 1:803 ceramics/glass, 1:803 chemical and physical properties, 1:801, 1:801t exposure assessment, 1:803-804 in background levels, 1:803 in biological material, 1:804 biomonitoring/biomarkers, 1:804 environmental exposures, 1:804 methods of analysis, 1:803 in water, 1:803-804 workplace exposures, 1:804 workplace monitoring, 1:804 gaslight mantles, 1:803 medical, 1:803 metallurgy, 1:802-803 nuclear fuel, 1:802 pharmacokinetics, metabolism, and mechanism, 1:805 absorption, 1:805 distribution, 1:805 elimination, 1:805 production, 1:802 standards, regulations, or guidelines of exposure, 1:807 subchronic and chronic toxicity, epidemiological studies, 1:807 target organ and cellular toxicity, 1:805-806 thorium dust, 1:805 thorium salts, 1:805 thorotrast, 1:805, 1:806-807 toxic effects, 1:805-807 experimental studies, 1:805-806 human experience, 1:806-807 Thorotrast, 1:803, 807 Threamine. See Monoisoprpanolamine Threaric acid. See Tartaric acid Threshold limit value (TLV), 2:708 Committee. 2:758 Threshold limit values (TLVs), 5:6, 5:7, 6:478 OSHA. 5:7 Threshold limit value—short-term exposure limit (TLV-STEL), 5:16 Threshold limit value timeweighted average (TLV-TWA), 1:502

Thyl acetyl acetate. See Ethyl acetoacetate Thylidene diacetate, 4:190 chemical and physical properties, 4:190 odor and warning properties, 4:190 toxic effects, 4:191 acute toxicity, 4:191 chronic and subchronic toxicity, 4:191 experimental studies, 4:191 genetic and related cellular effects studies, 4:191 Thyroid gland follicular cell adenoma, 1:621 Thyroid-stimulating hormone (TSH), 2:947 TIBA. See Triisobutylamine Tilcarex. See Pentachloronitrobenzene Timberfume. See Trichloronitromethane Time-resolved luminescence technique, 1:773 Time shifts, adjustment entrainment, 6:338-339 light and melatonin, 6:339-341 light, as zeitgeber, 6:338 shiftwork applications, 6:341 zeitgebers, 6:338 Time-weighted average (TWA), 2:962, 5:101 dose, 2:707 Time-weighted average (TWA) exposures, 6:476 Time-weighted averages (TWAs), 1:412, 1:446, 1:513, 1:720 Timnodonic acid. See Eicosapentaenoic acid Tin chemical and physical properties, 1:361-362, 1:361t elemental tin, 1:361-362 organic tin, 1:362 environmental impact, 1:372-373 exposure assessment, 1:363-364 biomonitoring/biomarkers, 1:364 inorganic tin, 1:364-367 organic tin compounds, 1:367-371 pharmacokinetics, metabolism, and mechanisms, 1:367-371 production and use, 1:362-363 organotin compounds, 1:363 tin and tin alloys, 1:362-363 role in, 1:361 toxic effects, 1:364-372 human experience, 1:371-372 Tin chloride (SnCl₂) uses, 1:363 Tindal. See Vinyl formate TiO₂ administration, 1:434 nanoparticles, 1:434 neurotoxic potential, 1:436 in vitro genotoxicity, 1:436 OSHA analytical method, 1:431 production, 1:431 recommended exposure level (REL), 1:436 uses, 1:427 TIPA. See Triisopropanolamine Tiron, 1:524 Tissue dosimetry, 6:480 Tissue partition coefficients, 6:481 Titania, 1:427

Titanium, 1:427 atomic number, atomic weight, and natural isotopes, 1:428t chemical and physical properties, 1:428-429 compounds, 1:427 exposure assessment, 1:429 production and use, 1:429 standards, regulations, or guidelines of exposure, 1:431 toxic effects, 1:429-431 human experience, 1:430-431 Titanium dioxide carcinogenesis, 1:434-435 chemical and physical properties, 1:429t, 1:431 exposure assessment, 1:431 pharmacokinetics, metabolism, and mechanisms, 1:435-436 production and use, 1:431 standards, regulations, or guidelines of exposure, 1:436 synonyms, 1:431 toxic effects, 1:431-436 experimental studies, 1:432-435 human experience, 1:435-436 Titanium tetrachloride, 1:436 carcinogenesis, 1:437 chemical and physical properties, 1:429t, 1:437 exposure assessment, 1:437 production and use, 1:437 standards, regulations, or guidelines of exposure, 1:437 toxic effects human experience, 1:437 Titanocene carcinogenesis, 1:438 chemical and physical properties, 1:429t, 1:437 exposure assessment, 1:438 pharmacokinetics, metabolism, and mechanisms, 1:438 production and use, 1:437 reproductive and developmental studies, 1:438 toxic effects experimental studies, 1:438 Titanocene dichloride, 1:28 carcinogenesis, 1:30 exposure assessment, 1:29 genetic and related cellular effects studies, 1:30, 1:31 metabolism, 1:30 pharmacokinetics, 1:30 production, 1:29 properties, 1:29 toxic effects, 1:29 uses, 1:29 TL4N. See Diethylene glycol TLV-TWA, 1:461 TMA. See Trimethylamine TMOS. See Ethyl silicate TMP. See Trimethyl phosphate TMPD glycol. See 2,2,4-Trimethyl-1,3-pentanediol TM therapy, 1:579 TNB. See Trinitrobenzene TNBA. See Tri-n-butylamine TNM. See Tetranitromethane TNP. See Picric acid TNPA. See Tripropylamine

TNT. See 2,4,6-Trinitrotoluene TOCP. See Tri-o-cresyl phosphate Tolerable concentration (TC), 5:110 Tolidine. See 3,3'-Dimethylbenzidine 3,3'-Tolidine. See 3,3'-Dimethylbenzidine o-Tolidine. See 3,3'-Dimethylbenzidine o,o'-Tolidine. See 3,3'-Dimethylbenzidine ortho-Tolidine. See 3,3'-Dimethylbenzidine Tolite. See 2,4,6-Trinitrotoluene p-Tolualdehyde chemical and physical properties, 3:715 environmental impact, studies, 3:716-717 production and use, 3:715 toxic effects, 3:715-716 *m*-Toluamine. See *m*-Toluidine Toluazotoluidine. See o-Aminoazotoluene Toluene, 1:38, 1:58, 2:180 chemical and physical properties, 2:181 environmental impact, studies, 2:184-185 exposure assessment, 2:181 guidelines of exposure, 2:184 production and use, 2:181 toxic effects, 2:181 acute toluene toxicity, 2:182, 2:183 chronic toluene toxicity, 2:182 pharmacokinetics, metabolism, and mechanisms, 2:182 reproductive and developmental, 2:183 Toluene, ar,ar-dinitro. See Dinitrotoluene Toluenediamine. See 2,4-Toluenediamine 2,3-Toluenediamine, 2:570, 2:654-655 chemical and physical properties, 2:571 guidelines of exposure, 2:571 production and use, 2:571 toxic effects, 2:571 Toluene-2,3-diamine. See 2,3-Toluenediamine 2,4-Toluenediamine, 2:571, 2:655 chemical and physical properties, 2:571, 2:655 exposure assessment, 2:571, 2:655 guidelines of exposure, 2:572, 2:656 production and use, 2:571, 2:655 toxic effects. 2:571-572. 2:655-656 experimental studies, 2:656 human experience, 2:656 pharmacokinetics, metabolism, and mechanisms, 2:656 Toluene-2,4-diamine. See 2,4-Toluenediamine 2,5-Toluenediamine, 2:572, 2:657 chemical and physical properties, 2:572, 2:657 exposure assessment, 2:657 guidelines of exposure, 2:573, 2:657 production and use, 2:573, 2:657 toxic effects, 2:573, 2:657 Toluene-2,5-diamine. See 2,5-Toluenediamine 2,6-Toluenediamine, 2:573, 2:657 chemical and physical properties, 2:573, 2:658 exposure assessment, 2:658 guidelines of exposure, 2:573 production and use, 2:573, 2:658 toxic effects, 2:573 guidelines of exposure, 2:658

pharmacokinetics, metabolism, and mechanisms, 2:658 Toluene-2.6-diamine. See 2.6-Toluenediamine 3,4-Toluenediamine, 2:573, 2:658 chemical and physical properties, 2:574 production and use, 2:574 toxic effects, 2:574 Toluene-3,4-diamine. See 3,4-Toluenediamine 3,5-Toluenediamine, 2:574, 2:659 Toluenediamines, 2:654 2,6-Toluenediamine, 2,6-TDA. See 2,6-Toluenediamine Toluene-2,4-diisocyanate acute toxicity, 2:986, 2:987 carcinogenesis, 2:986 chemical and physical properties, 2:950t-951t, 2:985 chronic and subchronic toxicity, 2:986, 2:987 clinical cases, 2:986-987 experimental studies, 2:986 exposure assessment, 2:986 exposure standards, 2:987 human experience, 2:986 odor and warning properties, 2:985 pharmacokinetics, metabolism, and mechanisms, 2:984 production and use, 2:985 reproductive and developmental effects, 2:984, 2:986 toxic effects, 2:986-987 Toluene hexahydride. See Methylcyclohexane Toluene, hexahydro-. See Methylcyclohexane m-Toluidine, 2:575, 2:637 chemical and physical properties, 2:575, 2:637 exposure assessment, 2:575, 2:637 guidelines of exposure, 2:575, 2:637 production and use, 2:575, 2:637 toxic effects, 2:575, 2:637 o-Toluidine, 2:574, 2:635 chemical and physical properties, 2:574, 2:635 exposure assessment, 2:574, 2:635-636 guidelines of exposure, 2:575, 2:636 production and use, 2:574, 2:635 toxic effects, 2:574-575, 2:636 human experience, 2:636 pharmacokinetics, metabolism, and mechanisms, 2:636 p-Toluidine, 2:575, 2:637 chemical and physical properties, 2:575-576, 2:637-638 exposure assessment, 2:576, 2:638 guidelines of exposure, 2:576, 2:638 production and use, 2:576, 2:638 toxic effects, 2:576, 2:638 Toluidines. 2:635 Toluol. See Toluene m-Toluol. See m-Cresol o-Toluol. See o-Cresol o-Toluoyl peroxide. See Di-2-methylbenzoyl peroxide Tolu-sol. See Toluene p-Toluyl alcohol. See p-Tolyl alcohol 2,6-Toluylenediamine. See 2,6-Toluenediamine Tolyethylene. See Vinyltoluene m-Tolylamine. See m-Toluidine o-Tolylamine. See o-Toluidine p-Tolyl carbinol. See p-Tolyl alcohol

Tolylene-2,4-diamine. See 2,4-Toluenediamine 2,6-Tolylenediamine. See 2,6-Toluenediamine o-Tolyl phosphate. See Tri-o-cresyl phosphate Tonox. See 4,4'-Methylenedianiline Topanel. See Crotonaldehyde Topex. See Dibenzoyl peroxide Toporex 500. See Polystyrene Topped coal tar. See Coal tar pitch Total daily intake (TDI), 1:584 Total effective dose equivalent (TEDE), 1:799 Total lymphocyte count circadian rhythm of, 6:335f TOTM. See Tris(2-ethylhexyl) trimellitate TOTP. See Tri-o-cresyl phosphate Tourette's syndrome, 1:957 Toxic chemical information sources, 5:49 evaluating information, 5:58 toxicological literature searching, basics of, 5:49 bibliographic databases, 5:54-56 chemical identification, 5:50 internet, 5:51-54 organizations, 5:56-57 results, refining, 5:50-51 search strategy development, 5:49-50 value-added vendors, 5:57-58 Toxic chemicals management, 5:29 chemicals in processes to chemicals in products, 5:31-32 chemicals policy reform efforts, global landscape of Canada, 5:35 Europe, 5:32-34 international policies, 5:34-35 NGO activities, 5:39-40 safer chemicals policies, implementing, 5:39 state policy efforts, 5:37-39 United States, 5:35-37 comprehensive chemicals policy market transformation, 5:41 principles, 5:40 regulatory transformation, 5:40-41 science transformation, 5:41 failures of. 5:30 data gap, 5:30 safety gap, 5:30 technology gap, 5:30 green chemistry, application of, 5:43-45 human exposures to environmental hazards, 5:31 problems of, 5:29-30 processes and tools, 5:42-43 Red Book on risk assessment, 5:30, 5:31 risk-based/problem-based approach decision making, 5:31 limited focus on solutions and prevention, 5:31 reactive, time consuming, and expensive, 5:31 safer chemicals to sustainable products, 5:45 Toxic exposures regulations and guidelines, 5:5 Toxic gas exposures, 6:400 Toxicological programs, agencies and internet sites, 4:1069-1070 Toxic substance exposure prevention guidelines, 5:20

chemical hazards, communication of, 5:20 Canada's workplace hazardous materials information system, 5:21 globally harmonized system, 5:20 globally harmonized system, acute toxicity, 5:20t OSHA hazard communication standard, 5:20 registration, evaluation, authorization, and restriction, 5:21 worker training, 5:21–22 Toxic substances in environment, 5:67 human exposure, measuring/modeling, 5:78 air, 5:80-81 air, water, food, and biological samples, 5:82-83 biomonitoring, 5:79-80 environmental exposure, 5:85 exposure histories, 5:83 exposure measurements, 5:83-84 microenvironments, toxic chemicals, 5:80 occupational exposure data, 5:83 occupational exposure databases, expanded applications of, 5:84-85 past exposures, indirect measures of, 5:82 residential microenvironments, 5:81 size-selective inhalation hazard, conventions for, 5:81-82 water and foods, 5:80 workplace, 5:81 human exposure pathways and dosimetry dermal absorption, 5:76-77 extrathoracic airways, 5:74 gas-exchange airways and alveoli, 5:74 gastrointestinal tract exposures, 5:76 ingestion exposures, 5:76 mass transfer, 5:72-74 membranes/systemic circulation, absorption, 5:77 regional deposition estimates, 5:74-75 respiratory system, 5:71-72 skin exposure, 5:76-77 target tissues/dosimetric models, accumulation, 5:78 terminology, 5:69-71 thoracic airways, 5:74 translocation and retention, 5:75-76 nature of, 5:67 toxic air contaminants, physical properties of, 5:67-69 Toxic Substances Control Act (TSCA), 6:452 Toxic substances control act (TSCA), 1:53 Toxic Substances Control Act (TSCA) of 1976, 5:36 Toxilic acid. See Maleic acid Toxipedia, 5:53 Toynbee maneuver, 6:298 TP. See Triphenyl phosphate TPP. See Phosphorous acid triphenyl ester; Triphenyl phosphate Tracheobronchial lymph nodes (TLN), 1:784, 1:785 Transderm-nitro. See Nitroglycerin Transferrin. 1:642 Transfer under pressure (TUP), 6:288 Transgenic mouse bioassay, 6:465 Transient inflammatory cell induction, 1:610 Trawotox. See Chloral hydrate Triacetin. See Glyceryl triacetate

Triacetina [Spanish]. See Glyceryl triacetate Triacetine [French]. See Glyceryl triacetate Triacetinum [Latin]. See Glyceryl triacetate Triacetyl glycerine. See Glyceryl triacetate Triacetylglycerol. See Glyceryl triacetate Triallylamine, 2:477 chemical and physical properties, 2:477 guidelines of exposure, 2:478 production and use, 2:478 toxic effects, 2:478 2,4,6-Triamino-s-triazine. See Melamine Tri-n-amylamine, 2:467 chemical and physical properties, 2:467 exposure assessment, 2:468 guidelines of exposure, 2:468 production and use, 2:468 toxic effects, 2:468 1,4,7-Triazaheptane. See Diethylenetriamine 1,3,5-Triaza-1,3,5-trinitrocyclohexane. See Cyclotrimethylenetrinitramine 3,6,9-Triazaundecamethylenediamine. See Tetraethylenepentamine 3,6,9-Triaza-1,11-undecanediamine. See Tetraethylenepentamine 3,6,9-Triazaundecane-1,11-diamine. See Tetraethylenepentamine s-Triazine, 2-chloro-4,6-bis(isopropylamino)-. See Propazine 1,3,5-Triazine-2,4-diamine, 6-chloro-N,N¹-diethyl-. See Simazine 1,3,5-Triazine-2,4-diamine, N-isopropyl- N^1 -ethyl-6-methylthio-. See Ametryn; Prometryne; Simazine s-Triazine herbicides, 2:834 1,3,5-Triazine-2,4(1H,3H)-dione, 3-cyclohexyl-6-(dimethylamino)-1-methyl-. See Hexazinone 1,3,5,-Triazine-2,4,6-triamine, polymer with formaldehyde. See Melamine-formaldehyde resins 1,3,5-Triazine, 2,4,6-trichloro-. See Cyanuric chloride 1,3,5-Triazine-2,4,6-triol. See Cyanuric acid Tribac. See Dibenzoyl peroxide Tribenzo[a,e,i]pyrene. See Dibenzo[h, rst]pentaphene 1,2;4,5;7,8-Tribenzpyrene. See Dibenzo[h, rst]pentaphene Tribromophenol. See 2,4,6-Tribromophenol 2,4,6-Tribromophenol, 2:317 chemical and physical properties, 2:317 environmental impact, studies, 2:320-321 production and use, 2:317 toxic effects, 2:318-320 Tribufate. See Tribufos Tribufos, 4:1203 chemical and physical properties, 4:1203 exposure assessment, 4:1203 guidelines of exposure, 4:1207 production and use, 4:1203 toxic effects experimental studies, 4:1203-1206 human experience, 4:1206-1207 Tribuphos. See Tribufos Tri-sec-Butanolamine, 2:498 guidelines of exposure, 2:499 production and use, 2:499 toxic effects, 2:499 Tributhyl phosphate. See Tributyl phosphate

Tributilfosfato. See Tributyl phosphate Tributin; tributyrin; tri-n-butyrin; tributyrinine; tributyrl glyceride. See Glyceryl tributyrate Tributoxyphosphine oxide. See Tributyl phosphate Tributyl acetylcitrate. See Acetyl tributyl citrate Tributyl O-acetylcitrate. See Acetyl tributyl citrate Tributyl 2-(acetyloxy)-1,2,3-propanetricarboxylate. See Acetyl tributyl citrate Tributylamine. See Tri-n-butylamine n-Tributylamine. See Tri-n-butylamine Tri-*n*-butylamine, **2:**463 chemical and physical properties, 2:463 exposure assessment, 2:464 guidelines of exposure, 2:464 production and use, 2:463-464 toxic effects, 2:464 Tributyl citrate, 4:323 chemical and physical properties, 4:323 production and use, 4:323 toxic effects, 4:323 acute toxicity, 4:323 chronic and subchronic toxicity, 4:323 experimental studies, 4:323 Tributyl citrate acetate. See Acetyl tributyl citrate Tributyle. See Tributyl phosphate Tributyle(phosphate de). See Tributyl phosphate S,S,S-Tributyl ester. See Tribufos Tributylfosfaat. See Tributyl phosphate Tributyl 2-hydroxypropane-1,2,3-tricarboxylate. See Tributyl citrate Tributylphosphat. See Tributyl phosphate Tributyl phosphate, 4:380 chemical and physical properties, 4:380 exposure assessment, 4:381 production and use, 4:380-4:381 standards, regulations, or guidelines of exposure, 4:382 studies on environmental impact, 4:382 toxic effects, 4:381 acute toxicity, 4:381 carcinogenesis, 4:382 chronic and subchronic toxicity, 4:381 genetic and related cellular effects and studies, 4:382 human experience, 4:382 pharmacokinetics, metabolism, and mechanisms, 4:381 reproductive and developmental, 4:381, 4:382 Tributyl phosphine, 4:371 chemical and physical properties, 4:371 odor and warning properties, 4:371 toxic effects, 4:371 acute toxicity, 4:371 human experience, 4:372 Tri-n-butylphosphine. See Tributyl phosphine S,S,S-Tributyl phosphorotrithioate. See Tribufos Tributylphosphorus. See Tributyl phosphine Tri-n-butyltin chloride (TBTC), 1:369 Tributyltin oxide, 1:369 Tri-n-butyltin oxide (TBTO), 1:368 Tributyroin; tributyrl glyceride. See Glyceryl tributyrate Tricapric glyceride. See Glyceryl tridecanoate

Tricaprilin; tricaprylin; trioctanoin oil. See Glyceryl trioctanoate Tricaprin; tricaprinin; tridecanoin; tri(decanoyl)glycerol. See Glyceryl tridecanoate Tricaproin; tricapronin; tricaproylglycerol. See Glyceryl trihexanoate Tricarballylic acid, β -acetoxytributyl ester. See Acetyl triethyl citrate Trichlorfon, 4:1207 chemical and physical properties, 4:1207 exposure assessment, 4:1207 guidelines of exposure, 4:1213 production and use, 4:1207 toxic effects experimental studies, 4:1208-1211 human experience, 4:1211-1213 2,2,2-Trichloro- (9CI). See Chloral hydrate Trichloroacetaldehyde, 3:696 chemical and physical properties, 3:696 toxic effects, 3:696 2,2,2-Trichloroacetaldehyde. See Trichloroacetaldehyde Trichloroacetaldehyde hydrate. See Chloral hydrate Trichloroacetaldehyde monohydrate. See Chloral hydrate 1,2,3-Trichlorobenzene. See Trichlorobenzenes 1,2,4-Trichlorobenzene. See Trichlorobenzenes 1,3,5-Trichlorobenzene. See Trichlorobenzenes Trichlorobenzenes, 3:338 chemical and physical properties, 3:339 exposure assessment, 3:339 guidelines of exposure, 3:341 production and use, 3:339 toxic effects experimental studies, 3:339-341 human experience, 3:341 1,1,1-Trichloro-2,2'-bis(p-chlorophenyl)ethane, p,p'-DDT. See Dichlorodiphenyltrichloroethane (DDT) Trichloroethanal. See Trichloroacetaldehyde 1,1,1-Trichloroethane, 1:58. See Methyl chloroform 1,1,2-Trichloroethane, 3:78 chemical and physical properties, 3:79 exposure assessment, 3:79-80 guidelines of exposure, 3:82 production and use, 3:79 toxic effects, 3:80 experimental studies, 3:80-81 human experience, 3:81-82 1,2,2-Trichloroethane. See 1,1,2-Trichloroethane 1,1,1-Trichloro-2,2-ethanediol. See Chloral hydrate 2,2,2-Trichloro-1,1-ethanediol. See Chloral hydrate 2,2,2-Trichloroethanol dihydrogen phosphate. See Trichloroethyl phosphate Trichloroethanol 1-phosphate. See Trichloroethyl phosphate Trichloroethene. See Trichloroethylene Trichloroethyl dihydrogen phosphate. See Trichloroethyl phosphate 2,2,2-Trichloroethyldihydrogen phosphate. See Trichloroethyl phosphate Trichloroethylene, 1:58, 3:188 chemical and physical properties, 3:188

environmental impact, study, 3:201 exposure assessment, 3:189-190 guidelines of exposure, 3:201 production and use, 3:188-189 toxic effects experimental studies, 3:190-195 human experience, 3:195-201 1,1,2-Trichloroethylene. See Trichloroethylene Trichloroethyl phosphate, 4:392. See Trichloroethyl phosphate chemical and physical properties, 4:392 production and use, 4:392 toxic effects, 4:392 clinical cases, 4:392, 4:393 human experience, 4:392 2,2,2-Trichloroethyl phosphate. See Trichloroethyl phosphate b,b,b-Trichloroethyl phosphate. See Trichloroethyl phosphate Trichloroethyl phosphoric acid mono ester. See Trichloroethyl phosphate Trichloroethylsilane. See Ethyltrichloro silane Trichloroethylsilicane. See Ethyltrichloro silane Trichlorofluoromethane, 3:362 chemical and physical properties, 3:362 environmental impact, studies, 3:365 exposure assessment, 3:363 guidelines of exposure, 3:365 production and use, 3:362-363 toxic effects experimental studies, 3:363-364 human experience, 3:364-365 Trichloroform. See Chloroform 2,4,6-Trichloro-2-hydroxybenzene. See 2,4,6-Trichlorophenol 3,4,5-Trichloro-1-hydroxybenzene. See 3,4,5-Trichlorophenol (2,2,2-Trichloro-1-hydroxyethyl)-phosphonic acid dimethyl ester. See Trichlorfon Trichloromethane. See Chloroform Trichloromethylsilane. See Methyltrichloro silane Trichloromethylsilicon. See Methyltrichloro silane Trichloronitromethane, 2:369 chemical and physical properties, 2:369 environmental impact, studies, 2:371 exposure assessment, 2:369 guidelines of exposure, 2:371 production and use, 2:369 toxic effects, 2:369-371 Trichlorophenol, 2:302 2,3,4-Trichlorophenol, 2:302-303 2,3,5-Trichlorophenol, 2:303 2,3,6-Trichlorophenol, 2:303 2,4,5-Trichlorophenol, 2:303 2,4,6-Trichlorophenol, 2:303 3,4,5-Trichlorophenol, 2:304 Trichlorophon; dimethyl (2,2,2-trichlorohydroxyethyl) phosphonate. See Trichlorfon Trichloropicrin. See Trichloronitromethane 3,5,6-Trichloro-2-pyridinol O-ester with O,O-diethyl phosphorothioate. See Chlorpyrifos Trichlororide. See Trichloroethylene

Trichlorotrifluoroethane. See 1,1,2-Trichloro-1,2,2-trifluoroethane 1.1.1-Trichloro-2.2.2-trifluoroethane, 3:374 chemical and physical properties, 3:374 environmental impact, studies, 3:375 exposure assessment, 3:374 guidelines of exposure, 3:375 production and use, 3:374 toxic effects, 3:374 1,1,2-Trichloro-1,2,2-trifluoroethane, 3:371 chemical and physical properties, 3:371 environmental impact, studies, 3:374 exposure assessment, 3:371-372 guidelines of exposure, 3:374 production and use, 3:371 toxic effects experimental studies, 3:372-373 human experience, 3:373-374 1,1,1-Trichlorotrifluorothane (CFC 113a). See 1,1,1-Trichloro-2,2,2-trifluoroethane 1,1,2-Trichlorotrifluorothane. See 1,1,2-Trichloro-1,2,2trifluoroethane Triclofos. See Trichloroethyl phosphate Tri-Clor. See Trichloronitromethane Tricresylphosphate. See Tri-o-cresyl phosphate Tri-o-cresyl phosphate, 4:386 chemical and physical properties, 4:387 exposure assessment, 4:387 odor and warning properties, 4:387 production and use, 4:387 standards, regulations, or guidelines of exposure, 4:392 studies on environmental impact, 4:392 toxic effects, 4:387 acute toxicity, 4:387-4:389 carcinogenesis, 4:390 clinical cases, 4:391 epidemiology studies, 4:391, 4:392 human experience, 4:390, 4:391 pharmacokinetics, metabolism, and mechanisms, 4:389, 4:390 reproductive and developmental, 4:390 Tri-o-cresyl phosphate (TOCP), 1:35, 1:36 Tricyclo[8.2.0.0(4,6)]dodecane. See Caryophyllene Tricyclo [8.20.0(4,6)]dodecane. See Caryophyllene Tridecane, 2:44 chemical and physical properties, 2:45 exposure assessment, 2:45 guidelines of exposure, 2:45 toxic effects. 2:45 n-Tridecane. See Tridecane 1-Tridecanecarboxylic acid. See Myristic acid Tridecyl phosphite, 4:375. See Tridecyl phosphite Tridil sublin. See Nitroglycerin Tridymite. See Silicon dioxide Trien. See Triethylenetetramine Trienanthoin. See Glyceryl triheptanoate Triethanolamine, 2:494 chemical and physical properties, 2:494 guidelines of exposure, 2:496 production and use, 2:494-495

toxic effects, 2:495-496 1,1,1-Triethoxyethane. See Triethyl orthoacetate Triethoxymethylsilane. See Methyltriethoxy silane Triethoxypentylsilane. See Amyltriethoxy silane 1,1,1-Triethoxypropane. See Triethyl orthopropionate Triethoxysilylmethane. See Methyltriethoxy silane Triethoxyvinylsilane. See Vinyltriethoxy silane Triethoxyvinylsilicane. See Vinyltriethoxy silane Triethyl acetylcitrate. See Acetyl triethyl citrate Triethyl 2-acetyloxypropane-1,2,3-tricarboxylate. See Acetyl triethyl citrate Triethylamine, 2:455 chemical and physical properties, 2:455 exposure assessment, 2:455 guidelines of exposure, 2:456 production and use, 2:455 toxic effects, 2:455-456 Triethyl citrate, 4:321 chemical and physical properties, 4:322 production and use, 4:322 toxic effects, 4:322 acute toxicity, 4:322 chronic and subchronic toxicity, 4:322 experimental studies, 4:322 neurological, pulmonary, skin sensitization, 4:322 Triethyl citrate, acetate. See Acetyl triethyl citrate Triethyl citrate; 2-hydroxy-1,2,3-propanetricarboxylic acid, delta triethyl ester. See Triethyl citrate Triethylene glycol, 4:605 chemical and physical properties, 4:605-606 exposure assessment, 4:606 guidelines of exposure, 4:607 production and use, 4:606 toxic effects, 4:606 experimental studies, 4:606-607 human experience, 4:607 Triethylene glycol diacetate, 4:844 chemical and physical properties, 4:844 toxic effects, **4:**844 Triethylene glycol dinitrate, 4:862 chemical and physical properties, 4:862 exposure assessment, 4:862 guidelines of exposure, 4:863 toxic effects, 4:862-863 Triethylene glycol divalerate, 4:844 chemical and physical properties, 4:844 toxic effects, 4:844-845 Triethylene glycol ethyl ethers reproductive and developmental toxicity for, 4:729t Triethylene glycol methyl ethers reproductive and developmental toxicity for, 4:729t Triethylene glycol mono-*n*-butyl ether, **4**:750 chemical and physical properties, 4:750 exposure assessment, 4:750 guidelines of exposure, 4:751 production and use, 4:750 toxic effects experimental studies, 4:750-751 human experience, 4:751

Triethylene glycol monoethyl ether, 4:748 chemical and physical properties, 4:748 guidelines of exposure, 4:750 production and use, 4:749 toxic effects experimental studies, 4:749 human experience, 4:749-750 Triethylene glycol monomethyl ether, 4:745 chemical and physical properties, 4:746 guidelines of exposure, 4:748 production and use, 4:746 toxic effects, 4:746 experimental studies, 4:746-748 human experience, 4:748 Triethylenemelamine, 2:713 carcinogenesis, 2:712 chemical and physical properties, 2:711 environmental impact studies, 2:713 exposure assessment, 2:711 exposure standards, 2:713 genetic and cellular effects, 2:712-713 mutagenicity, 2:713 odor and warning properties, 2:711 pharmacokinetics, metabolism, and mechanisms, 2:712 production and use, 2:711 reproductive and developmental effects, 2:712 therapeutic administration, 2:713 toxic effects acute toxicity, 2:711-712, 2:711t experimental studies, 2:711-713 human experience, 2:713 subchronic and chronic toxicity, 2:712 Triethylenetetraamine. See Triethylenetetramine Triethylenetetramine, 2:490 chemical and physical properties, 2:490 guidelines of exposure, 2:490 production and use, 2:490 toxic effects, 2:490 Triethyl 2-hydroxy-1,2,3-propanetricarboxylate. See Triethyl citrate Triethvlolamine. See Triethanolamine Triethyl orthoacetate, 4:361 chemical and physical properties, 4:361 odor and warning properties, 4:361 toxic effects, 4:361 Triethyl orthoformate, 4:361 Triethyl orthopropionate, 4:361 chemical and physical properties, 4:362 toxic effects, 4:362 acute toxicity, 4:362 human experience, 4:362 Triethyl phosphate, 4:378 chemical and physical properties, 4:378 production and use, 4:378 studies on environmental impact, 4:380 toxic effects, 4:378 acute toxicity, 4:378-4:379 chronic and subchronic toxicity, 4:379 genetic and related cellular effects studies, 4:379

human experience, 4:380 reproductive and developmental, 4:379 Triethyl phosphite. See Triethyl phosphate Triethyltin, 1:367 Trifenylfosfin. See Triphenyl phosphine Trifenylfosfit. See Phosphorous acid triphenyl ester Trifluoroacetaldehyde hydrate. See Trifluoroacetaldehyde monohydrate Trifluoroacetaldehyde monohydrate, 3:700. See Trifluoroacetaldehyde monohydrate chemical and physical properties, 3:700 production and use, 3:700 standards, regulations/guidelines, 3:700 Trifluoroethane. See 1,1,1-Trifluoroethane 1,1,1-Trifluoroethane, 3:405 chemical and physical properties, 3:405 environmental impact, studies, 3:406-407 exposure assessment, 3:405 guidelines of exposure, 3:406 production and use, 3:405 toxic effects, 3:405 experimental studies, 3:405-406 human experience, 3:406 2,2,2-Trifluoroethyl chloride. See 1-Chloro-2,2,2-trifluoroethane Trifluoromethyl chloride. See Chlorotrifluoromethane 1,1,2-Trifluorotrichloroethane. See 1,1,2-Trichloro-1,2,2trifluoroethane Tri-Form. See 1,3-Dichloropropene Trigen. See Triethylene glycol Triglycol. See Triethylene glycol Triglycol diacetate; ethanol, 2,2'-ethylenedioxydi-,diacetate. See Triethylene glycol diacetate Triglycol monomethyl ether. See Triethylene glycol monomethyl ether Trigol. See Triethylene glycol n-Trihendecanoin. See Glyceryl triundecanoate Triheptanoic glyceride. See Glyceryl triheptanoate Triheptanoin. See Glyceryl triheptanoate Triheptylin. See Glyceryl triheptanoate Trihexanoin; trihexanoyl glycerol. See Glyceryl trihexanoate 1,2,3-Trihydroxybenzene. See Pyrogallol 3,4,5-Trihydroxybenzene-1-propylcarboxylate. See Propyl gallate 3,4,5-Trihydroxybenzoic acid dodecyl ester. See Dodecyl gallate 3,4,5-Trihydroxybenzoic acid, n-propyl ester. See Propyl gallate Trihydroxytriethylamine. See Triethanolamine Triiodomethane. See Iodoform Triiodomethane jodoform (Czech). See Iodoform Triisobutylamine, 2:464 chemical and physical properties, 2:465 exposure assessment, 2:465 guidelines of exposure, 2:465 production and use, 2:465 toxic effects. 2:465 Triisobutyrin. See Glyceryl triisobutyrate Triisooctyl phosphine, 4:373 production and use, 4:373 toxic effects, 4:373 acute toxicity, 4:373

Triisopropanolamine, 2:497 chemical and physical properties, 2:497 exposure assessment, 2:497 guidelines of exposure, 2:498 production and use, 2:497 toxic effects, 2:497 Trijodmethane (Czech). See Iodoform o-Trikesylphosphate. See Tri-o-cresyl phosphate Trilit. See 2,4,6-Trinitrotoluene Trimer. See Paraldehyde Trimethoxyfosfin. See Trimethyl phosphite Trimethoxyphosphine. See Trimethyl phosphite Trimethoxyphosphine oxide. See Trimethyl phosphate 2-(2,4-Trimethy-3-hydroxypentyl) isobutyrate. See 2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate Trimethylamine, 2:451 chemical and physical properties, 2:451 environmental impact, studies, 2:452 exposure assessment, 2:451 guidelines of exposure, 2:452 production and use, 2:451 toxic effects, 2:451-452 Trimethylaminoethane. See tert-Butylamine 1,2,3-Trimethylbenzene. See Hemimellitene 1,2,4-Trimethylbenzene. See Pseudocumene 1,2,5-Trimethylbenzene. See Pseudocumene 1,3,4-Trimethylbenzene. See Pseudocumene 1,3,5-Trimethylbenzene. See Mesitylene 2,6,6-Trimethylbicyclo(3,1,1)-2-heptene. See α -Pinene 2,6,6-Trimethylbicyclo[3.1.1]hept-2-ene. See α-Pinene 1,1,2-Trimethylbutane. See 2-Methylbutane 3,5,5-Trimethyl-t-butyl ester. See t-Butyl peroxy-3,5,5trimethylhexanoate Tri-methyl carbinol. See tert-Butyl alcohol Trimethylcarbinylamine. See tert-Butylamine Trimethylcyclohexenone. See Isophorone 1,1,3-Trimethyl-3-cyclohexen-5-one. See Isophorone 3,5,5-Trimethylcyclohexenone. See Isophorone 3,5,5-Trimethyl-2-cyclohexenone. See Isophorone 3,5,5-Trimethylcyclohex-2-enone. See Isophorone 3,5,5-Trimethyl-2-cyclohexen-1-one. See Isophorone 5,5-Trimethyl-1-cyclohexen-3-one. See Isophorone (3,3,5-Trimethylcyclohexylidene)bis(t-butyl) peroxide. See 1,1-Di-(t-butylperoxy)-3,3,5-trimethylcyclohexane (3,3,5-Trimethylcyclohexylidene)bis(1,1-dimethylethyl) peroxide. See 1,1-Di-(t-butylperoxy)-3,3,5-trimethylcyclohexane Trimethylene. See Cyclopropane Trimethylene diamine. See 1,3-Propanediamine Trimethylene glycol. See 1,3-Propanediol Trimethylenetrinitramine. See Cyclotrimethylenetrinitramine 1,1,1-Trimethylethane. See 2,2-Dimethylpropane 1,1,2-Trimethylethane. See 2-Methylbutane Trimethylethoxy silane, 4:409 Trimethylethoxysilane. See Trimethylethoxy silane Trimethylethoxy silane chemical and physical properties, 4:409 toxic effects, 4:409, 4:410 Trimethylfosfit. See Trimethyl phosphite Trimethyl glycol. See Propylene glycol

3,5,5-Trimethylhexanol, 4:15 chemical and physical properties, 4:15 production and use, 4:15 toxic effects, 4:16 acute toxicity, 4:16 chronic and subchronic toxicity, 4:16 experimental studies, 4:16 genetic and related cellular effects studies, 4:16 reproductive and developmental, 4:16 3,5,5-Trimethylhexan-1-ol. See 3,5,5-Trimethylhexanol 3,5,5-Trimethyl-1-hexanol. See 3,5,5-Trimethylhexanol 3,5,5-Trimethylhexyl alcohol. See 3,5,5-Trimethylhexanol Trimethylmethane. See 2-Methylpropane Trimethyl methanol. See tert-Butyl alcohol 4,11,11-Trimethyl methylenebicyclo[7.2.0]undec-4-ene. See Caryophyllene Trimethyl nonanone, 3:885 chemical and physical properties, 3:885 environmental impact, studies, 3:887 guidelines of exposure, 3:887 production and use, 3:885 toxic effects experimental studies, 3:885-886 human experience, 3:886 2,6,8-Trimethyl-4-nonanone. See Trimethyl nonanone 2,6,8-Trimethylnonan-4-one. See Trimethyl nonanone 2-(2,6,8-Trimethyl-4-nonyloxy)ethanol. See Ethylene glycol mono-2,6,8-trimethyl-4-nonyl ether Trimethyl orthophosphate. See Trimethyl phosphate 2,2,4-Trimethylpentane, 2:36 chemical and physical properties, 2:37 exposure assessment, 2:37 guidelines of exposure, 2:38 human experience, 2:38 production and use, 2:37 toxic effects, 2:37 2,2,4-Trimethyl-1,3-pentanediol, 4:627 2,2,4-Trimethylpentane-1,3-diol. See 2,2,4-Trimethyl-1,3pentanediol 2,2,4-Trimethyl-1,3-pentanediol chemical and physical properties, 4:627 exposure assessment, 4:628 production and use, 4:627-628 toxic effects experimental studies, 4:628 human experience, 4:628 2,2,4-Trimethyl-1,3-pentanediol diisobutyrate, 4:851 chemical and physical properties, 4:851 exposure assessment, 4:851 guidelines of exposure, 4:852 production and use, 4:851 toxic effects experimental studies, 4:851-852 human experience, 4:852 2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate, 4:849 chemical and physical properties, 4:849 exposure assessment, 4:849-850 guidelines of exposure, 4:851 production and use, 4:849

toxic effects experimental studies, 4:850-851 human experience, 4:851 2,4,4-Trimethylpentyl-2-hydroperoxide. See 1,1,3,3-Tetramethylbutyl hydroperoxide 2,4,4-Trimethylpentyl 2-peroxyphenoxyacetate. See 1,1,3,3-Tetramethylbutyl peroxyphenoxyacetate Trimethyl phosphate, 4:376 chemical and physical properties, 4:377 exposure assessment, 4:377 background levels, 4:377 odor and warning properties, 4:377 production and use, 4:377 studies on environmental impact, 4:378 toxic effects, 4:377 acute toxicity, 4:377 carcinogenesis, 4:377 genetic and related cellular effects studies, 4:377 human experience, 4:377 reproductive and developmental, 4:377 O,O,O-Trimethyl phosphate. See Trimethyl phosphate Trimethyl phosphite, 4:373 chemical and physical properties, 4:374 experimental studies, 4:374 acute toxicity, 4:374 chronic and subchronic toxicity, 4:374 genetic and related cellular effects studies, 4:374-4:375 human experience, 4:375 reproductive and developmental, 4:374 exposure assessment, 4:374 background levels, 4:374 odor and warning properties, 4:374 production and use, 4:374 standards, regulations, or guidelines of exposure, 4:375 Trimethylsilyl ethyl ether. See Trimethylethoxy silane Trimethyl-1,3,5-trioxane. See Paraldehyde 2,4,6-Trimethyl-1,3,5-trioxane. See Paraldehyde 2,4,6-Trimethyl-s-trioxane. See Paraldehyde s-Trimethyltrioxymethylene. See Paraldehyde Trinitrin. See Nitroglycerin Trinitrobenzene, 2:534 chemical and physical properties, 2:534 guidelines of exposure, 2:535 production and use, 2:534 toxic effects, 2:534-535 1,3,5-Trinitrobenzene. See Trinitrobenzene sym-Trinitrobenzene. See Trinitrobenzene Trinitroglycerin. See Nitroglycerin Trinitroglycerol. See Nitroglycerin Trinitrohexahydrotriazine. See Cyclotrimethylenetrinitramine 1,3,5-Trinitrohexahydro-p-triazine. See Cyclotrimethylenetrinitramine Trinitrophenol. See Picric acid 2,4,6-Trinitrophenol. See Picric acid Trinitrophenylmethylnitramine. See Tetryl 2,4,6-Trinitrophenylmethylnitramine. See Tetryl Trinitrotoluene. See 2,4,6-Trinitrotoluene 2,4,6-Trinitrotoluene, 2:549 chemical and physical properties, 2:550

exposure assessment, 2:550 guidelines of exposure, 2:550 production and use, 2:550 toxic effects, 2:550 s-Trinitrotoluene. See 2,4,6-Trinitrotoluene sym-Trinitrotoluene. See 2,4,6-Trinitrotoluene Trinitrotoluol. See 2,4,6-Trinitrotoluene α -Trinitrotoluol. See 2,4,6-Trinitrotoluene s-Trinitrotoluol. See 2,4,6-Trinitrotoluene sym-Trinitrotoluol. See 2,4,6-Trinitrotoluene 1,3,5-Trinitro-1,3,5-triazacyclohexane. See Cyclotrimethylenetrinitramine Trinonanoate. See Glyceryl trinonanoate Trinonanoin. See Glyceryl trinonanoate Trinonylin. See Glyceryl trinonanoate Trioctanoylglycerol. See Glyceryl trioctanoate Trioenanthoin. See Glyceryl triheptanoate Triona b. See White oils 2,4,6(1H,3H,5H)-Trione. See Cyanuric acid Triorthocresyl phosphate. See Tri-o-cresyl phosphate Tri-o-tolyl phosphate, 1:61 3-(2,8,9-Trioxa-aza-1-germatricyclo [3.3.3.0] undecane-1-yl)hydroxycinnamic acids antitumor activity, 1:356 s-Trioxane polymer. See Polyoxymethylene 3,6,9-Trioxaundeca-1,10-diene. See Diethylene glycol divinyl ether 3,6,9-Trioxaundecan-1,11-diol. See Tetraethylene glycol o-Trioyl phosphate. See Tri-o-cresyl phosphate Tri PCNB. See Pentachloronitrobenzene Tripelargoin. See Glyceryl trinonanoate Tripelargonin. See Glyceryl trinonanoate Tripentenamine. See Triallylamine Tripentylamine. See Tri-n-amylamine Triphenoxyphosphine. See Phosphorous acid triphenyl ester Triphenoxyphosphine oxide. See Triphenyl phosphate m-Triphenyl. See Terphenyl o-Triphenyl. See Terphenyl para-Triphenyl. See Terphenyl Triphenylamine, 2:596, 2:688 chemical and physical properties, 2:596 guidelines of exposure, 2:596 production and use, 2:596 toxic effects, 2:596 Triphenyl amine (triphenylene). See Triphenylamine Triphenylene, 2:239. See also Triphenylamine chemical and physical properties, 2:239 exposure assessment, 2:239 guidelines of exposure, 2:240 production and use, 2:239 toxic effects, 2:239 Triphenylphosphane. See Triphenyl phosphine Triphenyl phosphate, 4:384. See Phosphorous acid triphenyl ester chemical and physical properties, 4:384 exposure assessment, 4:384 air, **4:**384 background levels, 4:384 odor and warning properties, 4:384 production and use, 4:384 standards, regulations, or guidelines of exposure, 4:386

Triphenyl phosphate (Continued) studies on environmental impact, 4:386 toxic effects, 4:384 acute toxicity, 4:384-4:385 chronic and subchronic toxicity, 4:385 clinical cases, 4:386 epidemiology studies, 4:386 experimental studies, 4:384 genetic and related cellular effects studies, 4:385 human experience, 4:385-4:386 pharmacokinetics, metabolism, and mechanisms, 4:385 reproductive and developmental, 4:385 Triphenylphosphide. See Triphenyl phosphine Triphenyl phosphine, 4:372 chemical and physical properties, 4:372 production and use, 4:372 studies on environmental impact, 4:373 toxic effects, 4:372 acute toxicity, 4:372 chronic and subchronic toxicity, 4:372 genetic and related cellular effects studies, 4:372 human experience, 4:372 Triphenyl phosphite, 4:375. See Phosphorous acid triphenyl ester chemical and physical properties, 4:375 odor and warning properties, 4:376 production and use, 4:376 standards, regulations, or guidelines of exposure, 4:376 toxic effects, 4:376 acute toxicity, 4:376 human experience, 4:376 Triphenyl phosphoric acid ester. See Triphenyl phosphate Triphenylphosphorus. See Triphenyl phosphine Triphenyltin (TPT), 1:370 Triphenyltin chloride (TPTC), 1:370 Tripoli. See Silicon dioxide Tripropanoylglycerol. See Glyceryl tripropionate Tri-2-propenylamine. See Triallylamine Tripropionin. See Glyceryl tripropionate Tripropionine. See Glyceryl tripropionate Tripropionylglycerol. See Glyceryl tripropionate Tripropylamine, 2:459 chemical and physical properties, 2:459 exposure assessment, 2:459 guidelines of exposure, 2:459 production and use, 2:459 toxic effects, 2:459 Tripropylene glycol, 4:618 chemical and physical properties, 4:618 exposure assessment, 4:618 production and use, 4:618 toxic effects experimental studies, 4:618 human experience, 4:618 Tripropylene glycol mono-*n*-butyl ether, **4:**832 chemical and physical properties, 4:832 guidelines of exposure, 4:833 production and use, 4:832 toxic effects, 4:832-833 Tripropylene glycol monoethyl ether, 4:831

chemical and physical properties, 4:832 guidelines of exposure, 4:832 toxic effects, 4:832 Tripropylene glycol monomethyl ether, 4:830 chemical and physical properties, 4:830 guidelines of exposure, 4:831 production and use, 4:830 toxic effects, 4:830-831 Tripropylene glycol monomethyl ether acetate. See also Propylene glycol monomethyl ether acetate Tris(butyl) phosphine. See Tributyl phosphine Tris(β-chloroethyl)amine (hydrochloride) carcinogenesis, 2:720 chemical and physical properties, 2:719 environmental impact studies, 2:721 exposure assessment, 2:719 exposure standards, 2:721 genetic and cellular effects, 2:720 pharmacokinetics, metabolism, and mechanisms, 2:719 production and use, 2:719 reproductive and developmental effects, 2:720 toxic effects acute toxicity, 2:719-720 experimental studies, 2:719-720 human experience, 2:720 subchronic and chronic toxicity, 2:720 Tris(β-chloroethyl) phosphate, tri(2-chloroethyl). See Trichloroethyl phosphate Tris(o-cresyl)-phosphate. See Tri-o-cresyl phosphate Trisdecyl phosphite. See Tridecyl phosphite Tris(2-ethylhexyl) trimellitate, 4:326 chemical and physical properties, 4:326 production and use, 4:326 toxic effects, 4:326 acute toxicity, 4:326 chronic and subchronic toxicity, 4:326, 4:327 genetic and related cellular effects studies, 4:327 pharmacokinetics, metabolism, and mechanisms, 4:327 reproductive and developmental, 4:327 Tris(ethyl) phosphate. See Triethyl phosphate Tris(hydroxyethyl) amine. See Triethanolamine Tris(2-hydroxyl-1-propyl) amine. See Triisopropanolamine Tris(o-methylphenyl) phosphate. See Tri-o-cresyl phosphate Tris(2-methylpropyl)amine. See Triisobutylamine Trisodium phosphate, 1:942 chemical and physical properties, 1:942, 1:943 exposure assessment, 1:943 production and use, 1:943 standards, regulations, and guidelines of exposure, 1:943 toxic effects, 1:943 Tris(o-tolyl) phosphate. See Tri-o-cresyl phosphate Tri-/Tetramethylbenzenes toxicity of, 2:193 Tritisan. See Pentachloronitrobenzene Tri-O-tolyl ester phosphoric acid. See Tri-o-cresyl phosphate Tri-2-tolyl phosphate. See Tri-o-cresyl phosphate Tri-o-tolyl phosphate. See Tri-o-cresyl phosphate Triundecanoin. See Glyceryl triundecanoate Triundecylin. See Glyceryl triundecanoate

1,3,5-Trixoane homopolymer. See Polyoxymethylene Trizoic acid. See Azides Trolamine. See Triethanolamine Trolitul. See Polystyrene Tropilidene. See 1,3,5-Cycloheptatriene Trotyl. See 2,4,6-Trinitrotoluene True ammonium sulfide. See Ammonium sulfide Trycite 1000. See Polystyrene Tuaminoheptane. See 2-Aminoheptane Tuberculosis (TB), 5:559 microbial pathogens, 5:559 Tulabase Fast Garnet GBC. See o-Aminoazotoluene Tula Base Fast Red TR. See 4-Chloro-o-toluidine Tumor induction, 6:450 Tumor necrosis factor (TNF), 1:180, 1:181 Tungsten acute toxicity, 1:589, 1:592-593 carcinogenesis, 1:592, 1:595 chemical and physical properties, 1:585, 586t chronic and subchronic toxicity, 1:589-590, 1:593-594 clinical cases, 1:592-596 exposure assessment, 1:587-589 biomonitoring/biomarkers, 1:588 in blood, 1:588 community methods, 1:588 in urine, 1:588 workplace methods, 1:587-588 genetic and related cellular effects studies, 1:592 median lethal doses, 1:589t neurological and skin sensitization, 1:595-596 pathogenesis of hard metal disease, 1:594-595 production and use, 1:585-587 reproductive and developmental studies, 1:592, 1:595 standards, regulations, and guidelines of exposure, 1:596 toxic effects, 1:589-596 experimental studies, 1:589-592 human experience, 1:592-596 toxicokinetics, 1:590-592 absorption, 1:590 distribution, 1:590-591 elimination, excretion., 1:591-592 Tungsten carbide (WC), 1:586, 1:645 Tunnel boring machines (TBM), 6:289 Turpentine, 2:122, 2:139 chemical and physical properties, 2:139 environmental impact, studies, 2:141 exposure assessment, 2:139 guidelines of exposure, 2:141 production and use, 2:139 toxic effects, 2:139-141 Turpentine (wood). See Turpentine Turpentine oil. See Turpentine Turpentine spirits. See Turpentine Turpentine steam, distilled. See Turpentine Tutane. See n-Butylamine Two-compartment model, 1:781 Two-dimensional gel electrophoresis, 1:392 Tylose 444. See Methyl cellulose Tylose A4s. See Methyl cellulose

Tylose Iwa. See Methyl cellulose Tylose mf. See Methyl cellulose Tylose mh. See Methyl cellulose Tylose mh20. See Methyl cellulose Tylose mh50. See Methyl cellulose Tylose mh300. See Methyl cellulose Tylose mh1000. See Methyl cellulose; Methylcellulose Tylose mh2000. See Methyl cellulose Tylose mh4000. See Methyl cellulose Tylose mh300p. See Methyl cellulose Tylose sap. See Methyl cellulose Tylose sl. See Methyl cellulose Tylose sl 100. See Methyl cellulose Tylose sl 400. See Methyl cellulose Tylose sl 600. See Methyl cellulose Tyranton. See 4-Hydroxy-4-methyl-2-pentanone Tyril. See Styrene-acrylonitrile (SAN) U-1149. See Fumaric acid U1199. See Furfural U-2069. See 2,6-Dichloro-4-nitroaniline U 3886. See Azides Ubatol u 2001. See Polystyrene U-bicarbonate complex, 1:781 Ucarcide. See Glutaraldehyde Ucon fluids, 4:631 chemical and physical properties, 4:631-632 toxic effects experimental studies, 4:632-633 UDMH. See 1,1-Dimethylhydrazine UDP-glucuronosyltransferase, 2:765 Ultraviolet (UV) detector, 2:706 Ultraviolet (UV)-induced DNA damage, 1:395 Ultraviolet light, 1:1 Ultraviolet radiation. 6:184 UN 2333. See Allyl acetate Unal. See 4-Aminophenol Undecane chemical and physical properties, 2:42 exposure assessment, 2:42 guidelines of exposure, 2:43 production and use, 2:42 toxic effects. 2:42 n-Undecane. See Undecane 1-Undecanecarboxylic acid. See Lauric acid Undecanoic acid. See Glyceryl triundecanoate n-Undecanoic acid. See Undecylic acid Undecanoin, tri-. See Glyceryl triundecanoate Undecenoic acid. See Undecylenic acid 10-Undecenoic acid. See Undecylenic acid n-Undecoic acid. See Undecylic acid Undecyl carbinol. See 1-Dodecanol Undecylenic acid, 3:550 chemical and physical properties, 3:550 guidelines of exposure, 3:551 production and use, 3:550 toxic effects experimental studies, 3:550 human experience, 3:550-551

Undecylic acid, 3:501 chemical and physical properties, 3:501 exposure assessment, 3:501 guidelines of exposure, 3:501 production and use, 3:501 toxic effects experimental studies, 3:501 human experience, 3:501 United States Geological Survey (USGS), 1:356 United States Occupational Safety and Health Administration, 1:357 Univerm. See Carbon tetrachloride Unsaturated aliphatic aldehydes, 3:683 Unsaturated aliphatic monocarboxylic acids physical properties of, 3:534t Unsaturated aliphatic polycarboxylic acids acute toxicity of, 3:573t physical properties of, 3:572t Unsaturated monocarboxylic acids acute toxicity of, 3:535t-536t Unsaturated polycarboxylic acids, 3:571 acute toxicity of, 3:510t Unsaturated polyester resins, 4:973 chemical and physical properties, 4:974 environmental impact, studies, 4:977 exposure assessment, 4:975 air, 4:975 biomonitoring/biomarkers, 4:975 workplace methods, 4:975 production and use, 4:974 synthesis and processing, 4:974-975 uses, 4:975 toxic effects, 4:975 experimental studies, 4:975-976 human experience, 4:976-977 **UNSCEAR**, 1:775 Unscheduled DNA synthesis (UDS) assay, 2:710 Unsymmetrical dimethylethylene. See 2-Methylpropene Unsymmetrical dimethylhydrazine. See 1,1-Dimethylhydrazine UP 1. See Polystyrene UP 2. See Polystyrene Upper respiratory tract irritation, 1:971 Uracil mustard adverse effect, 2:724 carcinogenesis, 2:724 chemical and physical properties, 2:723 environmental impact studies, 2:724-725 exposure assessment, 2:723 exposure standards, 2:724 genetic and cellular effects, 2:724 pharmacokinetics, metabolism, and mechanisms, 2:724 production and use, 2:723 reproductive and developmental effects, 2:724 toxic effects acute toxicity, 2:723-724 experimental studies, 2:723-724 human experience, 2:724 subchronic and chronic toxicity, 2:724 volatilization, 2:725

Uranium acute exposures, case studies, 1:787 acute toxicity, 1:783 in blood and hair, 1:779 carcinogenicity, 1:786, 1:789-790 chemical and physical properties, 1:769-771, 1:770t chronic and subchronic toxicity, epidemiological studies, 1:787-798 cohort studies, 1:791t-796t concentration, 1:778t, 1:789f drinking water exposure studies, 1:788 epidemiology studies, 1:790-798 exposure assessment, 1:773-780 biomonitoring, 1:778-780 chemical methods of analysis, 1:773-774 methods of analysis, 1:773 naturally occurring uranium levels, 1:775-778 radiological methods of analysis, 1:774-775 workplace exposures, 1:778 exposure limits, 1:800t genetic and related cellular effects studies, 1:786-787, 1:798-799 hexavalent and tetravalent comparison of the distribution and excretion, 1:780t in human tissues, 1:775–778 inductively coupled plasma-mass spectrometry, 1:774 kinetic phosphorescence analysis, 1:773-774 military DU inhalation and embedded fragment exposure, 1:788-789 mill chemistry, 1:772f miners, 1:790 natural vs. depleted, 1:773t neurotoxicity, 1:786 neutron activation analysis, 1:774 occupational exposures, 1:789-790, 1:791t-796t occupational exposure studies, 1:787-788 pharmacokinetics and metabolism, 1:780-782 dermal exposure, 1:782 inhalation exposure, 1:781-782 oral exposure, 1:781 processing and fabrication workers, 1:797-798 production and use, 1:771-773 extraction of natural uranium, 1:771-773 uranium enrichment, 1:773 pulmonary toxicity, 1:783, 1:784-785 renal toxicity, 1:783, 1:784, 1:787-789 reproductive and developmental, 1:785-786 smoking interaction in lung cancer, 1:797 in soil, air, water, and food, 1:775 α -spectrometry, 1:774 standards, regulations, or guidelines of exposure, 1:799-801 studies of population exposure, 1:776t-777t subchronic and chronic toxicity, 1:783-786 target organ effects, 1:789 in target organs (bone), 1:786 thermal ionization mass spectrometry, 1:774 in tissue distribution, 1:782 toxic effects, 1:780-799 experimental studies, 1:780-787

human experience, 1:787-799 ²³⁵U enrichment process, **1:**773 urine biomonitoring, 1:778-779 whole body radiation counting, 1:774-775 Uranium-238, 1:4 Urea-formaldehyde resin. See Urea-formaldehyde resins Urea-formaldehyde resins, 4:1017 guidelines of exposure, 4:1019-1020 production and use, 4:1017-1018 toxic effects experimental studies, 4:1018 human experience, 4:1018-1019 trans-Urocanic acid, 6:182 Ursol Brown RR. See 2-Nitro-1,4-phenylenediamine Ursol D. See 1,4-Phenylenediamine Ursol EG. See 3-Aminophenol Ursol 4 GL. See 2-Amino-4-nitrophenol Ursol Olive 6G. See 4-Chloro-1,2-phenylenediamine Ursol P. See 4-Aminophenol Ursol P Base. See 4-Aminophenol Ursol Yellow Brown A. See 2-Amino-5-nitrophenol U.S. Atomic Energy Commission, 1:772 U.S. Coast Guard (USCG), 5:14 U.S. Department of Housing and Urban Development, 1:386 U.S. Environmental Protection Agency, 1:363, 1:381, 1:546, 1:621, 1:625 USEPA, 2:948 uncertainty factors, 5:109t USEPA neurotoxicity testing guidelines, 1:55t USGS. See United States Geological Survey U.S. National Occupational Exposure Survey, 1:566 U.S. National Research Council, 1:566 U.S. National Toxicology Program (NTP), 1:579, 1:580 Uterine hyperplasia, 1:480 UTEVA chromatographic resin, 1:774 Uvasol. See White oils UV-B-induced DNA damage, 6:183 UV-induced skin cancers, 1:490 Valamine. See Isobutylamine Valeral. See n-Valeraldehvde

Valeraldehyde. See n-Valeraldehyde n-Valeraldehyde, 3:680 chemical and physical properties, 3:680 guidelines of exposure, 3:681 production and use, 3:680 toxic effects, 3:681 Valerianic aldehyde. See n-Valeraldehyde Valeric acid, 3:485 chemical and physical properties, 3:485 exposure assessment, 3:485 guidelines of exposure, 3:486 production and use, 3:485 toxic effects experimental studies, 3:485-486 human experience, 3:486 Valeric acid aldehyde. See n-Valeraldehyde Valeric acid, triethylene glycol diester. See Triethylene glycol divalerate

Valeric aldehyde. See n-Valeraldehyde n-Valeric aldehyde. See n-Valeraldehyde Valerone. See Diisobutyl ketone Valerylaldehyde. See n-Valeraldehyde Valine-lysine thiourea cross-linking, 1:874 Valsalva maneuver, 6:298 Vanadinite, 1:513 Vanadium acute toxicity, 1:517-518, 1:530-531, 1:533-534 carcinogenesis, 1:526-527, 1:533, 1:535-536 cardiovascular effects, 1:528 chemical and physical properties, 1:513-515 odor and warning properties, 1:515 chemical identity, 1:514t chronic and subchronic toxicity, 1:518-519, 1:531-532, 1:534-535 clinical cases, 1:530-533 exposure assessment, 1:515-517 in air, 1:516 in background levels, 1:516 biomonitoring/biomarkers, 1:517 in blood, 1:517 community methods, 1:517 in urine, 1:517 workplace methods, 1:516-517 gastrointestinal effects, 1:518 genetic and related cellular effect studies, 1:527-528, 1:533, 1:536 global biogeochemical cycling, 1:536 hematological effects, 1:528-529 hepatic effects, 1:518 immunological effects, 1:529 key studies on toxicity, 1:520t-522t mutagenicity studies with bacterial assays, 1:527t natural sources, 1:538 neurological effects, 1:529-530 pharmacokinetics, metabolism, and mechanisms, 1:519-524, 1:532-533, 1:535 absorption, 1:519 distribution, 1:519-523 metabolism, 1:523-524 production and use, 1:515 regulations and guidelines, 1:537t renal effects, 1:518-519 reproductive and developmental studies, 1:524-526, 1:533 reproductive and developmental studiies, 1:535 respiratory effect, 1:518 standards, regulations, or guidelines of exposure, 1:536 studies on environmental impact, 1:536-538 toxic effects, 1:517-536 epidemiology studies, 1:533-536 experimental studies, 1:517-530 human experience, 1:530-533 Vanadium-containing catalysts, 1:515 Vanadium-induced oseoblastic cytotoxicity, 1:523 Vanadium oxide (VO), 1:511, 1:512 Vanadium oxide nanotubes (VONT), 1:526 Vanadium tetraoxide, i.p. administration, 1:524 Vanadium-transferrin binding, 1:523

Vanadocene dichloride, 1:31 production, 1:31 properties, 1:31 toxic effects, 1:31 uses, 1:31 Vanadyl sulfate, 1:525 Van Arkel-de Boer process, 1:443 Vanicol. See Stearic acid Vanillal. See Ethyl vanillin Vanillic aldehyde. See Vanillin Vanillin, 3:632 chemical and physical properties, 3:633 exposure assessment, **3:**633 toxic effects experimental studies, 3:633 human experience, 3:633-634 Vanoxide. See Dibenzoyl peroxide Vaporole. See Isoamyl nitrite Vapor-phase mechlorethamine, v717 Variamine Blue Salt RT. See 4-Aminodiphenylamine; p-Aminodiphenylamine Varnish makers. See VM&P Naphtha Varnish makers/painters naphtha. See Petroleum ether Vascular endothelial growth factor (VEGF), 1:610 Vaseline. See Petrolatum Vasodiatol. See Pentaerythritol tetranitrate Vasoliment. See Petrolatum VB. See Vinyl bromide VC. See Vinyl chloride VCHD. See Vinylcyclohexene dioxide VCM. See Vinyl chloride VDC. See Vinylidene chloride VDF/VF2. See Polylvinylidene fluoride VDR. See Vitamin D receptor Vedril. See Polymethyl methacrylate Vegetable oil (mist). See Biodiesel VEGF. See Vascular endothelial growth factor Veracur. See Formaldehyde Veratrole methyl ether. See Methyleugenol Vermoestricid. See Carbon tetrachloride Versene. See Ethylenediaminetetraacetic acid Versneller NL 63/10. See N,N-Dimethylaniline Veruca-sep. See Glutaraldehyde Vessel-rich group (VRG), 1:484 Vestolen p 5232g. See Polystyrene Vestyron. See Polystyrene VF. See Vinyl fluoride Vibrating tools, 6:270 Vilnite. See Wollastonite Vinamar. See Ethyl vinyl ether Vinamul n 710. See Polystyrene Vinegar naphtha. See Ethyl acetate Vinegar/vinegar acid. See Acetic acid 4-Vinlycyclohexene dioxide. See Vinylcyclohexene dioxide Vinol. See Polyvinyl alcohol Vinyl acetate, 4:88. See Ethenyl acetate chemical and physical properties, 4:89 exposure assessment, 4:89 air, 4:89

workplace methods, 4:89 odor and warning properties, 4:89 production and use, 4:89 standards, regulations, or guidelines of exposure, 4:91 studies on environmental impact, 4:91 toxic effects, 4:89 acute toxicity, 4:89, 4:90 carcinogenesis, 4:90 chronic and subchronic toxicity, 4:90 clinical cases, 4:90, 4:91 epidemiology studies, 4:91 experimental studies, 4:89 genetic and related cellular effects studies, 4:90 human experience, 4:90 pharmacokinetics, metabolism, and mechanisms, 4:90 Vinyl acetate homopolymer. See Polyvinyl acetate Vinyl acetate monomer. See Ethenyl acetate Vinyl acetate resin, vinyl acetate latex. See Polyvinyl acetate Vinyl alcohol polymer. See Polyvinyl alcohol Vinylbenzene. See Styrene Vinylbenzene polymer. See Polystyrene Vinyl benzoate, 4:160 chemical and physical properties, 4:160 toxic effects, 4:160 experimental studies, 4:160 Vinylbenzol. See Styrene 5-Vinylbicyclo[2.2.1]hept-2-ene. See Vinylnorbornene Vinyl bromide, 3:182 chemical and physical properties, 3:182 environmental impact, studies, 3:185 exposure assessment, 3:182-183 guidelines of exposure, 3:185 production and use, 3:182 toxic effects experimental studies, 3:183-184 human experience, 3:184-185 N-Vinylbutyrolactam polymer. See Polyvinylpyrrolidone (PVP) Vinyl carbinol. See Allyl alcohol Vinyl carbinyl cinnamate. See n-Allyl cinnamate Vinyl- ${}^{13}C_2$ bromide (gas). See Vinyl bromide Vinyl chloride, 3:174 chemical and physical properties, 3:174 environmental impact, studies, 3:181-182 exposure assessment, 3:175-176 guidelines of exposure, 3:181 production and use, 3:175 toxic effects experimental studies, 3:176-178 human experience, 3:178-181 Vinyl chloride homopolymer. See Polyvinyl chloride Vinyl chloride polymer. See Polyvinyl chloride Vinyl C monomer. See Vinyl chloride 4-vinylcyclohexane. See Vinylcyclohexene monoxide Vinylcyclohexene. See 4-Vinylcyclohexene 1-Vinylcyclohex-1-ene, 2:120 chemical and physical properties, 2:120 production and use, 2:120 toxic effects, 2:120 1-Vinylcyclohexene-3. See 4-Vinylcyclohexene

4-Vinylcyclohexene, 2:120 chemical and physical properties, 2:120 exposure assessment, 2:121 guidelines of exposure, 2:122 production and use, 2:120 toxic effects, 2:121-122 4-Vinylcyclohexene-1. See 4-Vinylcyclohexene Vinyl cyclohexene-derived dimercaptan, 4:1057 animal and human studies, 4:1057 chemical and physical properties, 4:1057 Vinyl cyclohexene diepoxide. See Vinylcyclohexene dioxide 4-Vinylcyclohexene diepoxide. See Vinylcyclohexene dioxide 4-Vinyl-1-cyclohexene diepoxide. See Vinylcyclohexene dioxide 4-Vinyl-1,2-cyclohexene diepoxide. See Vinylcyclohexene dioxide Vinylcyclohexene dioxide, 4:454 Vinyl cyclohexene dioxide. See Vinylcyclohexene dioxide Vinylcyclohexene dioxide chemical and physical properties, 4:455 exposure assessment, 4:455 guidelines of exposure, 4:456 production and use, 4:455 toxic effects experimental studies, 4:455-456 human experience, 4:456 1-Vinyl-3-cyclohexene dioxide. See Vinylcyclohexene dioxide 4-Vinyl-1-cyclohexene dioxide. See Vinylcyclohexene dioxide 4-Vinylcyclohexene-1,2-epoxide. See Vinylcyclohexene monoxide Vinylcyclohexene monoxide, 4:454 chemical and physical properties, 4:454 exposure assessment, 4:454 guidelines of exposure, 4:454 production and use, 4:454 toxic effects, 4:454 Vinylcyclohexenes, 2:120 1-Vinyl-3-cyclohexen-1-yl hydroperoxide, 4:584 chemical and physical properties, 4:584 exposure assessment, 4:584 production and use, 4:584 toxic effects, 4:584 1-Vinyl-3,4-epoxycyclohexane. See Vinylcyclohexene monoxide Vinyl ester. See Vinyl formate Vinylester kyseliny bensoove [Czech]. See Vinyl benzoate Vinyl ether. See Divinyl ether 2-Vinylethoxytetrae-thylene glycol. See Tetraethylene glycol monovinylethyl ether Vinyl ethyl ether. See Ethyl vinyl ether Vinyl fluoride, 3:185 chemical and physical properties, 3:185 environmental impact, studies, 3:188 exposure assessment, 3:186 guidelines of exposure, 3:187-188 production and use, 3:185-186 toxic effects experimental studies, 3:186-187 human experience, 3:187 Vinyl fluoride monomer. See Vinyl fluoride Vinyl formate, 4:65. See Vinyl formate Vinylformic acid. See Acrylic acid

Vinyl halides, 4:892, 4:905 Vinylidene chloride, 3:166 chemical and physical properties, 3:167 environmental impact, studies, 3:174 exposure assessment, 3:167-168 guidelines of exposure, 3:174 production and use, 3:167 toxic effects, 3:168 experimental studies, 3:168-173 human experience, 3:173-174 Vinylidene chloride-acrylonitrile, 4:908 Vinylidene dichloride. See Vinylidene chloride Vinylidene fluoride-hexafluoropropylene, 4:899 chemical and physical properties, 4:899 exposure assessment, 4:899 guidelines of exposure, 4:899 production and use, 4:899 toxic effects, 4:899 Vinylidine chloride. See Vinylidene chloride Vinylidine chloride-methylacrylate, 4:908 chemical and physical properties, 4:908 Vinyl methanoate. See Vinyl formate Vinylnorbornene, 2:143 chemical and physical properties, 2:143-144 exposure assessment, 2:144 production and use, 2:144 toxic effects, 2:144 5-Vinyl-2-norbornene. See Vinylnorbornene 3-Vinyl-7-oxabicyclo(4.1.0)heptane. See Vinylcyclohexene monoxide 2-(vinyloxy)ethanol. See Ethylene glycol monovinyl ether 5-Vinyl-2-picoline. See Vinylpyridines Vinylpyridines, 2:805 carcinogenesis, 2:806 chemical and physical properties, 2:805 environmental impact, studies on, 2:807, 2:808 exposure assessment, 2:806 human experience, 2:807 odor and warning properties, 2:805 production and use, 2:805, 2:806 toxic effects. 2:806 acute toxicity, 2:806 experimental studies, 2:806 genetic and related cellular effect studies, 2:807 pharmacokinetics, metabolism, and mechanisms, 2:806 Vinylpyrrolidinone polymer. See Polyvinylpyrrolidone (PVP) 1-Vinyl-2-pyrrolidinone polymer. See Polyvinylpyrrolidone (PVP) 1-Vinyl-2-pyrrolidone polymer. See Polyvinylpyrrolidone (PVP) Vinylstyrene. See Divinylbenzene Vinyltoluene, 2:226 chemical and physical properties, 2:227 exposure assessment, 2:227 guidelines of exposure, 2:229 production and use, 2:227 toxic effects. 2:227-229 Vinyl trichloride. See 1,1,2-Trichloroethane Vinyltriethoxy silane, 4:412 Vinyltriethoxysilane. See Vinyltriethoxy silane

Vinyltriethoxy silane chemical and physical properties, 4:412 toxic effects, 4:412 acute toxicity, 4:412 human experience, 4:412 1-Vinyltri-(t-butylperoxy)silane, 4:589 chemical and physical properties, 4:589 exposure assessment, 4:589 production and use, 4:589 toxic effects, 4:589-590 Viscol. See Methyl cellulose Viscontran 152. See Methyl cellulose; Methylcellulose Viscosol. See Methyl cellulose Vital capacity (VC), 1:177 Vitamin B₁₂, **1:**646 Vitamin D receptor (VDR) polymorphism role, 1:411 Vitamin E deficiency, 1:996 Vitellogen (Vtg) expression, 1:373 Vitreous silica. See Amorphous silica VM&P Naphtha, 5:344 chemical and physical properties, 5:344 exposure assessment, 5:344 guidelines of exposure, 5:346 petroleum distillates occupational exposure limits and recommendations, 5:345t production and use, 5:344 toxic effects, 5:344-346 VONT. See Vanadium oxide nanotubes Vopcolene 27. See Oleic acid VRG. See Vessel-rich group Vulkanox PBN. See N-Phenyl-2-naphthylamine Waiting-for-reward paradigm, 1:396 Walsh-Healy Public Contracts Act, 5:1 Walsroder mc 20000s. See Methyl cellulose; Methylcellulose Wash oil. See Creosote Waste kiln dust. See Portland cement Water-containing fluids, 6:2 Waxakol Yellow NL. See o-Aminoazotoluene Wax extract. See Paraffins (waxes) Waxoline Yellow ADS. See 4-Dimethylaminoazobenzene Wecoline oo. See Oleic acid Weight of evidence (WOE), 5:97 Welding gas. See Acetylene Wet-bulb globe temperature, 6:57 White mineral oil. See White oils White oils. 5:352 chemical and physical properties, 5:352 exposure assessment, 5:352 guidelines of exposure, 5:352 production and use, 5:352 toxic effects, 5:352 White spirits. See Stoddard solvent WHO. See World Health Organization Whole-body autoradiography, 1:591, 2:967 Whole body radiation counting, 1:774-775 Whole-body radiation syndrome, 1:10, 1:11 Whole body vibration (WBV), 6:269

Wilson's disease, 1:174 Wintergreen oil. See Salicylates Wintergruenoel. See Salicylates Wollastonite, 5:194 chemical and physical properties, 5:195 production and use, 5:195 toxicity, 5:195 Wood. See Methanol Wood alcohol. See Methanol Wood creosote, 2:284 chemical and physical properties, 2:284 environmental impact, studies, 2:287 exposure assessment, 2:284-285 guidelines of exposure, 2:287 production and use, 2:284 toxic effects, 2:285-287 Wood dust, 5:455 aerodynamic particle sizes, 5:461t biologically active organic compounds, 5:456t chemical and physical properties, 5:455-456 digestive tract, cancers of, 5:477t environmental impact, studies, 5:479 exposure assessment, 5:457-462 exposure levels, 5:458t-460t guidelines of exposure, 5:478-479 Hodgkin's disease/non-Hodgkin's lymphoma (NHL), 5:478t lung cancer case-control studies of, 5:476t mortality and cancer incidence studies, 5:470t-473t nonmalignant lung diseases, epidemiological studies of, 5:466t-468t production and use, 5:456 sinonasal cancers, case-control studies, 5:474t-475t softwoods/hardwoods, nomenclature of, 5:456t toxic effects epidemiology studies, 5:465-478 experimental studies, 5:462-463 human experience, 5:463-465 wood dust time-weighted average exposure limits, 5:478t Wood naphtha. See Methanol Wood spirits. See Methanol workers exposed, to bromine compounds, 1:1090t Working level (WL), defined, 1:18 Working level months (WLMs), 1:790 Work, lipids, and a fibrinogen (WOLF) study, 6:356 Workplace environmental exposure level guide (WEEL), 2:731, 734 Workplace guidelines, 5:6 Workplace Hazardous Materials Information System (WHMIS), 5:21 Workplace safety Federal laws, affecting toxic substance control and responsible federal agency, 5:9 legislation, standards, and guidelines, 5:8 OSHA standards and regulation, 5:10 U.S. agencies, toxic substances, 5:10-14 environmental protection agency, 5:12-13 homeland security department, 5:13-14 mine safety and health administration, 5:11-12
National Institute for Occupational Safety and Health (NIOSH), 5:12 nuclear regulatory commission, 5:13 regulations to protect workers, 5:11t transportation department, 5:12 U.S. Coast Guard (USCG), 5:14 Workplaces toxic chemicals, governmental regulation, 5:14 exposure limit, 5:16 carcinogens, 5:18-20 countries/organizations, 5:15t IOELs, NIOSH RELs, and OSHA PELs, 5:17t Maximale Arbeitsplatzkonzentration (MAK value), 5:16-17 mixtures, 5:18 occupational, 5:15t permissible, 5:16 recommended, 5:16 scientific committee on occupational exposure limit values (SCOEL), 5:17 skin guidelines, 5:17-18 threshold limit values, 5:16 workplace exposure limits, rationale, 5:14-16 World Health Organization (WHO), 1:401, 1:409, 1:614, 1:619 Wuchereria bancrofti, 1:86 Wulfenite, 1:577 X 600. See Polystyrene Xenobiotic, 1:173 Xenylamine. See 4-Aminobiphenyl p-Xenylamine. See 4-Aminobiphenyl Xerac. See Dibenzoyl peroxide Xerac BP 5. See Dibenzoyl peroxide Xerac BP 10. See Dibenzoyl peroxide X-ray analysis, 1:532 X-ray diffraction analyses, 1:366 X-ray emission spectroscopy, 1:541 X-ray examinations, 1:594, 1:687 X-ray fluorescence advantage, 1:387 analysis, 1:386, 1:456 X-ray method, 1:385, 1:495 X-ray powder diffraction, 1:516 X-rays, 1:1 Xylenes, 1:58, 2:185 chemical and physical properties, 2:185 environmental impact, studies, 2:190 exposure assessment, 2:185-186 guidelines of exposure, 2:190 production and use, 2:185 toxic effects, 2:186-190 acute toxicity, 2:186 in animals, 2:187-188 carcinogenesis, 2:189 chronic toxicity, 2:186 in humans. 2:189 pharmacokinetics, metabolism, and mechanisms, 2:186 2,4-Xylidine, 2:580 guidelines of exposure, 2:581 physical and chemical properties, 2:580 production and use, 2:580

toxic effects, 2:580-581 2,5-Xylidine, 2:581 chemical and physical properties, 2:581 exposure assessment, 2:581 guidelines of exposure, 2:581 production and use, 2:581 toxic effects, 2:581 2,6-Xylidine, 2:581 chemical and physical properties, 2:582 exposure assessment, 2:582 guidelines of exposure, 2:582 production and use, 2:582 toxic effects, 2:582 o-Xylidine. See 2,6-Xylidine p-Xylidine. See 2,5-Xylidine Xylidine isomers. See Xylidines Xylidines, 2:579 chemical and physical properties, 2:580 exposure assessment, 2:580 guidelines of exposure, 2:580 production and use, 2:580 toxic effects. 2:580 Xylol. See Xylenes Xylylamine. See 2,5-Xylidine; 2,6-Xylidine YAG (yttrium aluminum garnet) lasers, 1:821 Yarns stress-strain behavior. 4:947f Yellow G Soluble in Grease. See 4-Dimethylaminoazobenzene Yttrium citrate-chloride complex, 1:836 Yukalon lk 30. See Polyethylene Yu model, 1:484 (Z-0-2-chloro-1(2,4,5-trichlorophenyl) vinyl dimethyl phosphate. See Tetrachlorvinphos Ziehl-Nielsen technique, 1:392 Zimmwaldite. See Mica Zimtaldehyde. See Cinnamaldehyde Zimtaldehyde light. See Cinnamaldehyde Zinc, 1:167 chemical and physical properties, 1:167, 1:168t deficiency, 1:169 exposure assessment, 1:167 air, 1:167 background levels, 1:169 biomonitoring/biomarkers, 1:169 community methods, 1:169 workplace methods, 1:169 production and use, 1:167 standards, regulations, or guidelines of exposure, 1:175, 1:176t studies on environmental impact, 1:175-176 toxic effects, 1:169-170, 1:171t experimental studies, 1:170, 1:172-173 human experience, 1:173-175 Zinc acetate, 1:183 chemical and physical properties, 1:184 exposure assessment, 1:184 production and use, 1:184 standards, regulations, or guidelines of exposure, 1:184, 176t

Zinc acetate (Continued) studies on environmental impact, 1:184 toxic effects, 1:184 Zinc ammonium sulfate, 1:185 chemical and physical properties, 1:171t, 1:185 exposure assessment, 1:185 production and use, 1:185 studies on environmental impact, 1:185 toxic effects, 1:185 Zinc, bis[1-hydroxy-2-pyridinethinoate-O,S]. See Pyridinethione Zinc borate hydrate, 1:917 chemical and physical properties, 1:917 exposure assessment, 1:917 production and use, 1:917 standards, regulations, or guidelines of exposure, 1:917 studies on environmental impact, 1:917-918 toxic effects, 1:917 acute toxicity, 1:917 experimental studies, 1:917 genetic and related cellular effects studies, 1:917 Zinc chloride, 1:181 chemical and physical properties, 1:182 exposure assessment, 1:182 production and use, 1:182 standards, regulations, or guidelines of exposure, 1:176t, 1:183 toxic effects, 1:182 clinical cases, 1:182 experimental studies, 1:182 human experience, 1:182 Zinc oxide, 1:176 exposure assessment, 1:177 production and use, 1:177 standards, regulations, or guidelines of exposure, 1:181 studies on environmental impact, 1:181 toxic effects, 1:177 clinical cases, 1:179-181 experimental studies, 1:177-178 human experience, 1:179 Zinc protoporphyrin (ZPP), 1:387 concentrations, 1:406 Zinc pyrithione. See Pyridinethione Zinc stearate, 1:184 chemical and physical properties, 1:168t, 1:184 exposure assessment, 1:184 production and use, 1:184 standards, regulations, or guidelines of exposure, 1:176t, 1:184-185 studies on environmental impact, 1:185 toxic effects, 1:184 experimental studies, 1:184 human experience, 1:184 Zinc sulfate, 1:183 chemical and physical properties, 1:183 exposure assessment, 1:183 production and use, 1:183 standards, regulations, or guidelines of exposure, 1:176t, 1:183 studies on environmental impact, 1:183 toxic effects, 1:183

Zircaloy clinical cases, 1:456 standards, regulations, or guidelines of exposure, 1:456 studies on environmental impact, 1:456 toxic effects human experience, 1:456 Zircaloy-2, 1:441 Zirconium atomic number, atomic weight, and natural isotopes, 1:428t by-products and coproducts, 1:443 chemical and physical properties, 1:439-441, 1:440t chronic and subchronic toxicity, 1:446 clinical cases, 1:445-446 exposure assessment, 1:444-445 biomonitoring/biomarkers, 1:445 community methods, 1:444-445 workplace methods, 1:444 imports and exports, statistics, 1:442t occurrence, 1:438-439 production, 1:441-443 caustic soda fusion, 1:442 chlorination, 1:442 electric furnace, 1:442 fluorosilicate fusion, 1:442 Kroll process, 1:442-443 separation of hafnium, 1:442 thermal dissociation, 1:442 Van Arkel-de Boer process, 1:443 standards, regulations, or guidelines of exposure, 1:446 studies on environmental impact, 1:446 toxic effects experimental studies, 1:445 human experience, 1:445 uses, 1:443 zirconium alloys, 1:443-444 Zirconium compounds clinical cases, 1:455 standards, regulations, or guidelines of exposure, 1:455 toxic effects human experience, 1:455 Zirconium-containing aerosol spray clinical cases, 1:455 standards, regulations, or guidelines of exposure, 1:455 toxic effects human experience, 1:455 Zirconium dichloride chemical and physical properties, 1:453 standards, regulations, or guidelines of exposure, 1:453 Zirconium nitrate pentahydrate chemical and physical properties, 1:454 standards, regulations, or guidelines of exposure, 1:454 toxic effects human experience, 1:454 Zirconium oxide supply/demand for, 1:448t Zirconium oxychloride, 1:451 Zirconium oxychloride, octahydrate acute toxicity, 1:452 chemical and physical properties, 1:440t, 1:451

chronic and subchronic toxicity, 1:451 genetic and related cellular effects studies, 1:452 pharmacokinetics, metabolism, and mechanisms absorption, 1:451-452 standards, regulations, or guidelines of exposure, 1:452 studies on environmental impact, 1:452 toxic effects, 1:451-452 human experience, 1:452 Zirconium oxynitrate, 1:453-454 ⁹⁵Z irconium particles pharmacokinetics, metabolism, and mechanisms absorption, 1:454 distribution, 1:454 excretion, 1:454 standards, regulations, or guidelines of exposure, 1:454 toxic effects, 1:454 Zirconium silicate chemical and physical properties, 1:453 clinical case, 1:453 standards, regulations, or guidelines of exposure, 1:453 toxic effects human experience, 1:453 Zirconium sulfate, 1:449-450 Zirconium sulfate, tetrahydrate chemical and physical properties, 1:440t, 1:450

chronic and subchronic toxicity, 1:450 genetic and related cellular effects studies, 1:450 standards, regulations, or guidelines of exposure, 1:451 toxic effects, 1:450-451 experimental studies, 1:450 Zirconium tetrachloride carcinogenesis, 1:448-449 chemical and physical properties, 1:440t, 1:447 chronic and subchronic toxicity, 1:448, 1:449 pharmacokinetics, metabolism, and mechanisms, 1:448 distribution, 1:448 standards, regulations, or guidelines of exposure, 1:449 toxic effects, 1:448-449 human experience, 1:449 uses, 1:448 Zirconotrast (ZrO₂), 1:448 Zirconyl chloride (ZrOCl₂), 1:451 Zoba Brown P Base. See 4-Aminophenol Zoba Brown RR. See 2-Nitro-1,4-phenylenediamine Zoba EG. See 3-Aminophenol Zoba 3GA. See 2-Aminophenol; o-Aminophenol Zoba GKE. See 2,4-Toluenediamine (Z)-9-octadecenoic acid ethyl ester. See Ethyl oleate Zogen Developer H. See 2,4-Toluenediamine Zymbal gland carcinomas, 2:962