

APPENDIX 7-A

HIGHLY TOXIC CHEMICALS LIST

The [OSHA Hazard Communication Standard, 29 CFR 1910.1200, Appendix A](#), classifies chemicals as "Highly Toxic", if a chemical possess at least one of these three characteristics:

- LD₅₀ equal or less than 50 mg/kg (oral, albino rat)
- LD₅₀ equal or less than 200 mg/kg (topical for 24 hours, albino rabbit)
- LC₅₀ equal or less than 200 ppm, or 2 mg/L (continuous inhalation for one hour, albino rat)

This classification should NOT be considered exhaustive, and a chemical's absence from this list does not necessarily mean that it is not highly toxic. Always check the chemical's [Safety Data Sheet](#) before use.

Chemical Names, Alternate Names, and CAS No. Table

Chemical Name	Alternate Name(s)	CAS No.
Abrin	Toxalbumin; Rosary Pea	1393-62-0
Acrolein	2-Propen-1-one	107-02-8
Acrylonitrile	2-Propenenitrile; Cyanoethylene	107-13-1
Actinomycin	Actinomycin C; Oncostatin	1402-38-6
Actinomycin D	Oncostatin K	50-76-0
Activated Factor X	Factor X Activating Enzyme from Russell's Viper Venom	9002-05-5
Aflatoxin B1		1402-68-2
Aldicarb	Propanal, 2-methyl-2-(methylthio)-, O-((methylamino)carbonyl)oxime	116-06-3
Aldrin		309-00-2
Allyl iodide	Iodopropene, 3-	556-56-9
Amanitine, alpha-	Amatoxin, alpha-	23109-05-9
Aminopterin	Aminofolic Acid, 4-	54-62-6
Aminopyridine, 3-	Aminopyridine, m-	462-08-8
Aminopyridine, 4-	Aminopyridine, p-	504-24-5
Amiton		78-53-5
Amiton Oxalate	Tetram Monooxalate	3734-97-2
Amphetamine Sulfate, d-	Benzedrine Sulfate, d-	51-63-8
Amphetamine, d-	Amphetamine, (+)-	51-64-9
Antimony Hydride	Stibine	7803-52-3
Antimycin A	Virosin	1397-94-0
Arsenic Acid	Orthoarsenic Acid	7778-39-4
Arsenic(III) Chloride	Arsenic Trichloride	7784-34-1
Arsenic(III) Fluoride	Arsenic Trifluoride	7784-35-2
Arsenic(III) Oxide	Arsenic Trioxide; Arsenious Oxide	1327-53-3

Arsenic(III) Sulfide	Arsenic Trisulfide	1303-33-9
Arsenic(V) Oxide	Arsenic Pentoxide	1303-28-2
Arsenic(V) Sulfide	Arsenic Pentasulfide	1303-34-0
Arsine	Hydrogen Arsenide	7784-42-1
Azinphos-Methyl	Guthion	86-50-0
Beryllium (powdered)		7440-41-7
Beryllium Sulfate Tetrahydrate	Sulfuric acid, beryllium salt (1:1), tetrahydrate	7787-56-6
Bidrin	Dipadrin; Dicrotphos	141-66-2
Bis(2-chloroethyl)-N-nitrosourea, N,N'-	BCNU; Carmustin	154-93-8
Bis(chloromethyl) Ether	BCME	542-88-1
Bis(dimethylamido)fluorophosphate	Dimefox	115-26-4
Boron Tribromide	Boron Bromide	10294-33-4
Boron Trichloride	Boron Chloride	10294-34-5
Boron Trifluoride	Boron Fluoride	7637-07-2
Botulinum Toxin B	Botulinum Toxin E	93384-44-2
Bromadiolone	Bromatrol	28772-56-7
Bungarotoxin, b-		
Butyronitrile	Cyanopropane, 1-	109-74-0
Calcium Arsenate	Arsenic Acid, Calcium Salt (2:3)	7778-44-1
Calcium Cyanide	Calcid; Cyanogas	592-01-8
Capsaicin	6-Nonenamide, 8-methyl-N-vanillyl-, (E)-	404-86-4
Carbachol Chloride	Doryl	51-83-2
Carbofuran	Yaltox	1563-66-2
Carbonyl Cyanide m-Chlorophenylhydrazone	Carbonyl Cyanide 3-Chlorophenyl Hydrazone	555-60-2
Carbophenothion	Acarithion	786-19-6
Chlorfenvinphos	Apachlor	470-90-6
Chlormephos	S-Chloromethyl-o,o-diethylphosphorodithioate	24934-91-6
Chlorophacinone		3691-35-8
Chlorthiophos		21923-23-9
Cholecalciferol	Quintox	67-97-0
Cholera Toxin		9012-63-9
Cisplatin		15663-27-1
Colchicine		64-86-8
Copper Acetoarsenite	C.I. Green 21	12002-03-8
Coumaphos		56-72-4
Crimidine	Crimitox	535-89-7
Cyanide		57-12-5
Cyanogen Chloride	Chlorine Cyanide	506-77-4
Cyanuric Fluoride	Trifluorotriazine	675-14-9

Cycloheximide	Actidione	66-81-9
Cytochalasin D	Zygosporin A	22144-77-0
Demecolcine	Colcemid	477-30-5
Dialifor		10311-84-9
Diborane	Boroethane	19287-45-7
Dibutyltin Diacetate		1067-33-0
Dichloroacetylene		7572-29-4
Dichloro-N-methyldiethylamine Hydrochloride, 2,2'-	Nitrogen Mustard Hydrochloride	55-86-7
Dichlorophenylarsine	Phenyl Dichloroarsine	696-28-6
Dichlorvos	DDVP	62-73-7
Dieldrin		60-57-1
Diethyl 4-Nitrophenol Phosphate	Ethyl Paraoxon	311-45-5
Diethyl Chlorophosphate		814-49-3
Digitoxin		71-63-6
Digoxigenin		1672-46-4
Digoxin		20830-75-5
Diisopropyl Fluorophosphate	Isopropyl Phosphorofluoridate	55-91-4
Dimethyl Sulfate	Methyl Sulfate	77-78-1
Dimethylmercury	Methyl Mercury	593-74-8
Dimetilan		644-64-4
Dinitrobutylphenol	DNBP; 2-sec-butyl-4,6-Dinitrophenol	88-85-7
Dinitro-o-Cresol, 4,6-		534-52-1
Dinitrophenol, 2,4-	Aldifen; DNP, 2,4-	51-28-5
Dioxathion		78-34-2
Diphtheria Toxin		
Disulfoton		298-04-4
Di-tert-butyl Dicarbonate	BOC-Anhydride	24424-99-5
Dithiobiuret, 2,4-	DTB	541-53-7
Doxorubicin (Free Base)	Adriamycin (Free Base)	23214-92-8
Emetine Dihydrochloride		316-42-7
Endosulfan Sulfate		1031-07-8
Endothion		2778-04-3
Endrin	Hexadrin	72-20-8
Ergocalciferol	Vitamin D2	50-14-6
Ergosterol	Provitamin D2	57-87-4
ERL 4221	Chissonox 221 monomer	2386-87-0
Ethion		563-12-2
Ethoprophos	Ethoprop	13194-48-4
Ethylene Fluorohydrin	Fluoroethanol, 2-	371-62-0
Ethyleneimine	Aziridine	151-56-4
Ethylmercuric Phosphate		2235-25-8

Ethyl-p-nitrophenylbenzenethiophosphate	EPN	2104-64-5
Etorphine	Immobilon	14521-96-1
Fenamiphos		22224-92-6
Fensulfothion	Dasanit	115-90-2
Fluenetil		4301-50-2
Fluoride ion		16984-48-8
Fluorine		7782-41-4
Fluoroacetamide		640-19-7
Fluoroacetic Acid		144-49-0
Fonofos		944-22-9
Formaldehyde (gas)	Methyl Aldehyde	50-00-0
Formaldehyde Cyanohydrin	Glycolonitrile	107-16-4
Formetanate Hydrochloride		23422-53-9
Formparanate		17702-57-7
Gitoxin		4562-36-1
Heptachlor		76-44-8
Heptachlor Epoxide		1024-57-3
Hexaethyl Tetraphosphate		757-58-4
Hydrazine		302-01-2
Hydrogen Cyanide	Hydrocyanic Acid	74-90-8
Hydrogen Selenide	Selenium Hydride	7783-07.5
Hygromycin B	Antihelmucin	31282-04-9
Iron Pentacarbonyl		13463-40-6
Isobenzan	Telodrin	297-78-9
Isobutyronitrile	Isopropyl Cyanide	78-82-0
Isocyanatoethyl Methacrylate, 2-		30674-80-7
Isodrin		465-73-6
Lactonitrile		78-97-7
Lannate	Methomyl	16752-77-5
Leptophos		21609-90-5
Lewisite		541-25-3
Malonitrile	Malononitrile	109-77-3
Mephosfolan		950-10-7
Mercaptofos	Demeton	8065-48-3
Mercury(II) Acetate	Mercuric Acetate	1600-27-7
Mercury(II) Bromide	Mercuric Bromide	7789-47-1
Mercury(II) Chloride	Mercuric Chloride	7487-94-7
Mercury(II) Cyanide	Mercuric Cyanide	592-04-1
Mercury(II) Iodide	Mercuric Iodide	7774-29-0
Mercury(II) Nitrate	Mercuric Nitrate	10045-94-0
Mercury(II) Oxide	Mercuric Oxide	21908-53-2

Mercury(II) Thiocyanate	Mercuric Sulfocyanate	592-85-8
Methacrolein Diacetate		10476-95-6
Methamidophos		10265-92-6
Methanesulfonyl Fluoride	Mesyl Fluoride; Fumette	558-25-8
Methidathion	Supracide	950-37-8
Methiocarb	Mecaptodimethur	2032-65-7
Methoxyethylmercuric Acetate		151-38-2
Methoxyethylmercuric Chloride		123-88-6
Methoxyflurane	Metofane; Penthrane	76-38-0
Methyl Chloroformate	Methyl Chlorocarbonate	79-22-1
Methyl Fluoroacetate	Fluoroacetic Acid, Methyl Ester	453-18-9
Methyl Isocyanate		624-83-9
Methyl Lactonitrile, 2-	Acetone Cyanohydrin	75-86-5
Methyl Phosphonic Dichloride		676-97-1
Methylaziridine, 2-	Propyleneimine	75-55-8
Methylhydrazine		60-34-4
Mevinphos	Phosdrin	7786-34-7
Mexacarbate		315-18-4
Mitomycin C	Ametycin	50-07-7
Monensin Sodium	Coban	22373-78-0
Monochrotophos		6923-22-4
Muscimol	Pantherin; Aminomethyl-3-isoxazole, 5-	2763-96-4
Mustard Gas	Bis(2-Chloroethyl)sulfide	505-60-2
Naphthylthiourea, alpha-	ANTU	86-88-4
Nickel Carbonyl	Nickel Tetracarbonyl	13463-39-3
Nickel Cyanide	Dicyanonickel	557-19-7
Nicotine		54-11-5
Nicotine Sulfate		65-30-5
Nitric Acid (Red Fuming)		7697-37-2
Nitric Oxide	Nitrogen Monoxide	10102-43-9
Nitrobenzotrile, p-		619-72-7
Nitrogen Dioxide		10102-44-0
Nitrogen Mustard	Dichloro-N-methyldiethylamine, 2,2'-	51-75-2
Nitrogen Tetroxide		10544-72-6
Nitrosodimethylamine, N-	Dimethylnitrosamine	62-75-9
Nitrosomethylvinylamine, N-		4549-40-0
Norbormide		991-42-4
Ochratoxin A		303-47-9
Octamethyldiphosphoramide	Octamethylpyrophosphoramide	152-16-9
Osmium Tetroxide		20816-12-0
Ouabain	Acocantherin	630-60-4
Oxamyl		23135-22-0

Oxidiphenoxarsine, 10,10'	Vinadine	58-36-6
Oxotremorine		70-22-4
Oxygen Difluoride	Fluorine Oxide; Oxygen Fluoride	7783-41-7
Parathion	Phosphostigmine	56-38-2
Parathion-Methyl	Methyl Parathione; Metaphor	298-00-0
Pentaborane(9)	Nonahydropentaborane	19624-22-7
Pentachlorophenol		87-86-5
Phalloidin	Phalloidon from Amanita Phalloides	17466-45-4
Phenyl Mercaptan	Thiophenol; Benzenethiol	108-98-5
Phenylmercuric Acetate	Phenylmercury Acetate	62-38-4
Phenylmercuric Triethanolamine Lactate		23319-66-6
Phenylphosphine		638-21-1
Phenylsilatrane		2097-19-0
Phenylthiocarbamide	Phenyl-2-Thiourea, 1-	103-85-5
Phorate		298-02-2
Phosacetim		4104-14-7
Phosfolan		947-02-4
Phosgene	Carbonyl Chloride	75-44-5
Phosphamidon		13171-21-6
Phosphine	Hydrogen Phosphide	7803-51-2
Phosphonothioic Acid, Methyl-, o-(4-nitrophenyl)o-phenyl Ester	Colep	2665-30-7
Phosphorus Oxychloride	Phosphoryl Chloride	10025-87-3
Phosphorus Trichloride	Phosphorous Chloride	7719-12-2
Phosphorus, Yellow	Phosphorus, White	7723-14-0
Physostigmine	Eserine	57-47-6
Physostigmine Salicylate	Eserine Salicylate	57-64-7
Physostigmine Sulfate	Eserine Sulfate	64-47-1
Picrotoxin	Cocculin	124-87-8
Potassium Arsenite	Arsenenous Acid, Potassium Salt	10124-50-2
Potassium Azide		20762-60-1
Potassium Cyanide		151-50-8
Potassium Silver Cyanide	Silver Potassium Cyanide	506-61-6
Promecarb		2631-37-0
Propanenitrile	Propionitrile; Ethyl Cyanide	107-12-0
Propargyl Alcohol		107-19-7
Propiolactone, beta-	Propiolactone, 1,3-	57-57-8
Puromycin	Achromycin	53-79-2
Ricin		9009-86-3
Sarin	Isopropylmethane fluorophosphate	107-44-8
Selenium Dioxide	Selenium(IV) Dioxide	7446-08-4

Sodium Arsenate	Arsenic Acid, Sodium Salt	7631-89-2
Sodium Azide		26628-22-8
Sodium Cyanide		143-33-9
Sodium Dichromate		10588-01-9
Sodium Fluoroacetate	Fluoroacetic Acid, Sodium Salt	62-74-8
Sodium Meta Arsenite		7784-46-5
Sodium Selenate	Selenic Acid, Disodium Salt	13410-01-0
Sodium Selenite	Selenious Acid, Disodium Salt	10102-18-8
Streptonigrin	Bruneomycin	3930-19-6
Strychnine		57-24-9
Strychnine Sulfate	Vampirol	60-41-3
Sulfur Pentafluoride	Sulfur Decafluoride	5714-22-7
Sulfur Tetrafluoride		7783-60-0
Tabun		77-81-6
Tellurium Hexafluoride		7783-80-4
Tetrachlorodibenzo-p-Dioxin, 2,3,7,8-	TCDD, 2,3,7,8-; Dioxine	1746-01-6
Tetraethyl Dithiopyrophosphate	Sulfotep; TEDP	3689-24-5
Tetraethyl Lead	Tetraethyl Plumbane	78-00-2
Tetraethyl Pyrophosphate	Vapatone	107-49-3
Tetraethyltin	Tetraethyl Stannate	597-64-8
Tetrodotoxin	Tetrodotoxin Citrate	4368-28-9
Thallium Malonate	Thallos Malonate	2757-18-8
Thallium Sulfate		10031-59-1
Thallium(I) Acetate	Thallos Acetate	563-68-8
Thallium(I) Carbonate	Thallos Carbonate	6533-73-9
Thallium(I) Chloride	Thallos Chloride	7791-12-0
Thallium(I) Nitrate	Thallos Nitrate	10102-45-1
Thallium(I) Sulfate	Thallos Sulfate	7446-18-6
Thallium(III) Oxide	Thallic Oxide	1314-32-5
Thiocarbazide	Thiocarbohydrazide - TCH	2231-57-4
Thiodan	Endosulfan	115-29-7
Thiofanox	Dacamox	39196-18-4
Thionazin		297-97-2
Thiosemicarbazide	Thiocarbamylhydrazine	79-19-6
Tirpate	2,4-Dimethyl-1,3-dithiolane-2-carboxaldehyde O- (methylcarbamoyl)oxime	26419-73-8
Toluene Diisocyanate	Methyl-m-phenylene Diisocyanate	26471-62-5
Toluene-2,4-Diisocyanate		584-84-9
Toxaphene	Campechlor	8001-35-2
Triamiphos		1031-47-6
Tricarbonylmethylcyclopentadienyl Manganese		12108-13-3

Trichloronate	Agrisil; Phytosol	327-98-0
Trimethylopropane Phosphite		824-11-3
Trimethyltin Chloride	Chlorotrimethylstannate	1066-45-1
Triphenyltin Hydroxide		76-87-9
Tris(1-aziridiny)phosphine Sulfide	Thiotepa	52-24-4
Tris(2-chloroethyl)amine		555-77-1
Tubocurarine	Tubocurarine Hydrochloride	57-94-3
Tungsten Hexafluoride	Tungsten(VI) Fluoride	7783-82-6
Uracil Mustard	5-(Bis-(2-chloroethyl)-amino)-uracil	66-75-1
Valinomycin, (+)-	Valinomycin	2001-95-8
Vanadium(V) Oxide	Vanadium Pentoxide	1314-62-1
Warfarin		81-81-2
Warfarin Sodium	Sodium Coumadin	129-06-6
Yohimbine Hydrochloride		65-19-0
Zinc Phosphide		1314-84-7
Zinc Silicofluoride	Zinc Fluorosilicate	16871-71-9