

Appendix A

Department of Homeland Security Chemicals of Interest Appendix A

Chemical Of Interest	Synonym	CAS
Acetaldehyde		75-07-0
Acetone cyanohydrin, stabilized		75-86-5
Acetyl bromide		506-96-7
Acetyl chloride		75-36-5
Acetyl iodide		507-02-8
Acetylene	[Ethyne]	74-86-2
Acrolein	[2-Propenal] or Acrylaldehyde	107-02-8
Acrylonitrile	[2-Propenenitrile]	107-13-1
Acrylyl chloride	[2-Propenoyl chloride]	814-68-6
Allyl alcohol	[2-Propen-1-ol]	107-18-6
Allylamine	[2-Propen-1-amine]	107-11-9
Allyltrichlorosilane, stabilized		107-37-9
Aluminum (powder)		7429-90-5
Aluminum bromide, anhydrous		7727-15-3
Aluminum chloride, anhydrous		7446-70-0
Aluminum phosphide		20859-73-8
Ammonia (anhydrous)		7664-41-7
Ammonia (conc. 20% or greater)		7664-41-7
Ammonium nitrate, [with more than 0.2 percent combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance]		6484-52-2
Ammonium nitrate, solid [nitrogen concentration of 23% nitrogen or greater]		6484-52-2
Ammonium perchlorate		7790-98-9
Ammonium picrate		131-74-8
Amyltrichlorosilane		107-72-2
Antimony pentafluoride		7783-70-2
Arsenic trichloride	[Arsenous trichloride]	7784-34-1
Arsine		7784-42-1
Barium azide		18810-58-7
1,4-Bis(2-chloroethylthio)-n-butane		142868-93-7
Bis(2-chloroethylthio)methane		63869-13-6
Bis(2-chloroethylthiomethyl)ether		63918-90-1
1,5-Bis(2-chloroethylthio)-n-pentane		142868-94-8
1,3-Bis(2-chloroethylthio)-n-propane		63905-10-2
Boron tribromide		10294-33-4
Boron trichloride	[Borane, trichloro]	10294-34-5
Boron trifluoride	[Borane, trifluoro]	7637-07-2

Chemical Of Interest	Synonym	CAS
Boron trifluoride compound with methyl ether (1:1)	[Boron, trifluoro [oxybis (methane)],T-4-]	353-42-4
Bromine		7726-95-6
Bromine chloride		13863-41-7
Bromine pentafluoride		7789-30-2
Bromine trifluoride		7787-71-5
Bromotrifluoroethylene	[Ethene, bromotrifluoro-]	598-73-2
1,3-Butadiene		106-99-0
Butane		106-97-8
Butene		25167-67-3
1-Butene		106-98-9
2-Butene		107-01-7
2-Butene-cis		590-18-1
2-Butene-trans	[2-Butene, (E)]	624-64-6
Butyltrichlorosilane		7521-80-4
Calcium hydrosulfite	[Calcium dithionite]	15512-36-4
Calcium phosphide		1305-99-3
Carbon disulfide		75-15-0
Carbon oxysulfide	[Carbon oxide sulfide (COS); carbonyl sulfide]	463-58-1
Carbonyl fluoride		353-50-4
Carbonyl sulfide		463-58-1
Chlorine		7782-50-5
Chlorine dioxide	[Chlorine oxide, (ClO ₂)]	10049-04-4
Chlorine monoxide	[Chlorine oxide]	7791-21-1
Chlorine pentafluoride		13637-63-3
Chlorine trifluoride		7790-91-2
Chloroacetyl chloride		79-04-9
2-Chloroethylchloro-methylsulfide		2625-76-5
Chloroform	[Methane, trichloro-]	67-66-3
Chloromethyl ether	[Methane, oxybis(chloro-)]	542-88-1
Chloromethyl methyl ether	[Methane, chloromethoxy-]	107-30-2
1-Chloropropylene	[1-Propene, 1-chloro-]	590-21-6
2-Chloropropylene	[1-Propene, 2-chloro-]	557-98-2
Chlorosarin	[o-Isopropyl methylphosphonochloridate]	1445-76-7
Chlorosoman	[o-Pinacolyl methylphosphonochloridate]	7040-57-5
Chlorosulfonic acid		7790-94-5
Chromium oxychloride		14977-61-8
Crotonaldehyde	[2-Butenal]	4170-30-3
Crotonaldehyde, (E)-	[2-Butenal], (E)-]	123-73-9
Cyanogen	[Ethanedinitrile]	460-19-5
Cyanogen chloride		506-77-4
Cyclohexylamine	[Cyclohexanamine]	108-91-8
Cyclohexyltrichlorosilane		98-12-4
Cyclopropane		75-19-4
DF	Methyl phosphonyl difluoride	676-99-3

Diazodinitrophenol		87-31-0
Chemical Of Interest	Synonym	CAS
Diborane		19287-45-7
Dichlorosilane	[Silane, dichloro-]	4109-96-0
N,N-(2-diethylamino)ethanethiol		100-38-9
Diethyldichlorosilane		1719-53-5
o,o-Diethyl S-[2-(diethylamino)ethyl] phosphorothiolate		78-53-5
Diethyleneglycol dinitrate		693-21-0
Diethyl methylphosphonite		15715-41-0
N,N-Diethyl phosphoramidic dichloride		1498-54-0
N,N-(2-diisopropylamino)ethanethiol	N,N-diisopropyl-(beta)-aminoethane thiol	5842-07-9
Difluoroethane	[Ethane, 1,1-difluoro-]	75-37-6
N,N-Diisopropyl phosphoramidic dichloride		23306-80-1
1,1-Dimethylhydrazine	[Hydrazine, 1, 1-dimethyl-]	57-14-7
Dimethylamine	[Methanamine, N-methyl-]	124-40-3
N,N-(2-dimethylamino)ethanethiol		108-02-1
Dimethyldichlorosilane	[Silane, dichlorodimethyl-]	75-78-5
N,N-Dimethyl phosphoramidic dichloride	[Dimethylphosphoramido-dichloridate]	677-43-0
2,2-Dimethylpropane	[Propane, 2,2-dimethyl-]	463-82-1
Dingu	[Dinitroglycoluril]	55510-04-8
Dinitrogen tetroxide		10544-72-6
Dinitrophenol		25550-58-7
Dinitroresorcinol		519-44-8
Diphenyldichlorosilane		80-10-4
Dipicryl sulfide		2217-06-3
Dipicrylamine [or] Hexyl	[Hexanitrodiphenylamine]	131-73-7
N,N-(2-dipropylamino)ethanethiol		5842-06-8
N,N-Dipropyl phosphoramidic dichloride		40881-98-9
Dodecyltrichlorosilane		4484-72-4
Epichlorohydrin	[Oxirane, (chloromethyl)-]	106-89-8
Ethane		74-84-0
Ethyl acetylene	[1-Butyne]	107-00-6
Ethyl chloride	[Ethane, chloro-]	75-00-3
Ethyl ether	[Ethane, 1,1-oxybis-]	60-29-7
Ethyl mercaptan	[Ethanethiol]	75-08-1
Ethyl nitrite	[Nitrous acid, ethyl ester]	109-95-5
Ethyl phosphonyl difluoride		753-98-0
Ethylamine	[Ethanamine]	75-04-7
Ethyldiethanolamine		139-87-7
Ethylene	[Ethene]	74-85-1
Ethylene oxide	[Oxirane]	75-21-8
Ethylenediamine	[1,2-Ethanediamine]	107-15-3
Ethyleneimine	[Aziridine]	151-56-4
Ethylphosphonothioic dichloride		993-43-1
Chemical Of Interest	Synonym	CAS
Ethyltrichlorosilane		115-21-9

Fluorine		7782-41-4
Fluorosulfonic acid		7789-21-1
Formaldehyde (solution)		50-00-0
Furan		110-00-9
Germane		7782-65-2
Germanium tetrafluoride		7783-58-6
Guanyl nitrosaminoguanylidene hydrazine		
Hexaethyl tetraphosphate and compressed gas mixtures		757-58-4
Hexafluoroacetone		684-16-2
Hexanitrostilbene		20062-22-0
Hexolite	[Hexotol]	121-82-4
Hexyltrichlorosilane		928-65-4
HMX	[Cyclotetramethylene-tetranitramine]	2691-41-0
HN1 (nitrogen mustard-1)	[Bis(2-chloroethyl)ethylamine]	538-07-8
HN2 (nitrogen mustard-2)	[Bis(2-chloroethyl)methylamine]	51-75-2
HN3 (nitrogen mustard-3)	[Tris(2-chloroethyl)amine]	555-77-1
Hydrazine		302-01-2
Hydrochloric acid (conc. 37% or greater)		7647-01-0
Hydrocyanic acid		74-90-8
Hydrofluoric acid (conc. 50% or greater)		7664-39-3
Hydrogen		1333-74-0
Hydrogen bromide (anhydrous)		10035-10-6
Hydrogen chloride (anhydrous)		7647-01-0
Hydrogen cyanide	[Hydrocyanic acid]	74-90-8
Hydrogen fluoride (anhydrous)		7664-39-3
Hydrogen iodide, anhydrous		10034-85-2
Hydrogen peroxide (concentration of at least 35%)		7722-84-1
Hydrogen selenide		7783-07-5
Hydrogen sulfide		7783-06-4
Iodine pentafluoride		7783-66-6
Iron, pentacarbonyl-	[Iron carbonyl (Fe (CO) ₅), (TB5-11)-]	13463-40-6
Isobutane	[Propane, 2-methyl]	75-28-5
Isobutyronitrile	[Propanenitrile, 2-methyl-]	78-82-0
Isopentane	[Butane, 2-methyl-]	78-78-4
Isoprene	[1,3-Butadiene, 2-methyl-]	78-79-5
Isopropyl chloride	[Propane, 2-chloro-]	75-29-6
Isopropyl chloroformate	[Carbonochloridic acid, 1-methylethyl ester]	108-23-6
Isopropylamine	[2-Propanamine]	75-31-0
Isopropylphosphonothioic dichloride		1498-60-8
Isopropylphosphonyl difluoride		677-42-9
Lead azide		13424-46-9
Chemical Of Interest	Synonym	CAS
Lead styphnate	[Lead trinitroresorcinate]	15245-44-0
Lewisite 1	[2-Chlorovinylidichloroarsine]	541-25-3
Lewisite 2	[Bis(2-chlorovinyl)chloroarsine]	40334-69-8

Lewisite 3	[Tris(2-chlorovinyl)arsine]	40334-70-1
Lithium amide		7782-89-0
Lithium nitride		26134-62-3
Magnesium (powder)		7439-95-4
Magnesium diamide		7803-54-5
Magnesium phosphide		12057-74-8
MDEA	[Methyldiethanolamine]	105-59-9
Mercury fulminate		628-86-4
Methacrylonitrile	[2-Propenenitrile, 2-methyl-]	126-98-7
Methane		74-82-8
2-Methyl-1-butene		563-46-2
3-Methyl-1-butene		563-45-1
Methyl chloride	[Methane, chloro-]	74-87-3
Methyl chloroformate	[Carbonochloridic acid, methyl ester]	79-22-1
Methyl ether	[Methane, oxybis-]	115-10-6
Methyl formate	[Formic acid Methyl ester]	107-31-3
Methyl hydrazine	[Hydrazine, methyl-]	60-34-4
Methyl isocyanate	[Methane, isocyanato-]	624-83-9
Methyl mercaptan	[Methanethiol]	74-93-1
Methyl thiocyanate	[Thiocyanic acid, methyl ester]	556-64-9
Methylamine	[Methanamine]	74-89-5
Methylchlorosilane		993-00-0
Methyldichlorosilane		75-54-7
Methylphenyldichlorosilane		149-74-6
Methylphosphonothioic dichloride		676-98-2
2-Methylpropene	[1-Propene, 2-methyl-]	115-11-7
Methyltrichlorosilane	[Silane, trichloromethyl-]	75-79-6
Sulfur mustard (Mustard gas (H))	[Bis(2-chloroethyl)sulfide]	505-60-2
O-Mustard (T)	[Bis(2-chloroethylthioethyl)ether]	63918-89-8
Nickel Carbonyl		13463-39-3
Nitric acid		7697-37-2
Nitric oxide	[Nitrogen oxide (NO)]	10102-43-9
Nitrobenzene		98-95-3
5-Nitrobenzotriazol		2338-12-7
Nitrocellulose		9004-70-0
Nitrogen mustard hydrochloride	[Bis(2-chloroethyl)methylamine hydrochloride]	55-86-7
Nitrogen trioxide		10544-73-7
Nitroglycerine		55-63-0
Nitromannite	[Mannitol hexanitrate, wetted]	15825-70-4
Nitromethane		75-52-5
Nitrostarch		9056-38-6
Nitrosyl chloride		2696-92-6
Nitrotriazolone		932-64-9
Nonyltrichlorosilane		5283-67-0
Chemical Of Interest	Synonym	CAS
Octadecyltrichlorosilane		112-04-9
Octolite		57607-37-1

Octonal		78413-87-3
Octyltrichlorosilane		5283-66-9
Oleum (Fuming Sulfuric acid)	[Sulfuric acid, mixture with sulfur trioxide]	8014-95-7
Oxygen difluoride		7783-41-7
1,3-Pentadiene		504-60-9
Pentane		109-66-0
1- Pentene		109-67-1
2-Pentene, (E)-		646-04-8
2-Pentene, (Z)-		627-20-3
Pentolite		8066-33-9
Peracetic acid	[Ethaneperoxic acid]	79-21-0
Perchloromethylmercaptan	[Methanesulfenyl chloride, trichloro-]	594-42-3
Perchloryl fluoride		7616-94-6
PETN	[Pentaerythritol tetranitrate]	78-11-5
Phenyltrichlorosilane		98-13-5
Phosgene	[Carbonic dichloride] or [carbonyldichloride]	75-44-5
Phosphine		7803-51-2
Phosphorus		7723-14-0
Phosphorus oxychloride	[Phosphoryl chloride]	10025-87-3
Phosphorus pentabromide		7789-69-7
Phosphorus pentachloride		10026-13-8
Phosphorus pentasulfide		1314-80-3
Phosphorus trichloride		7719-12-2
Picrite	[Nitroguanidine]	556-88-7
Piperidine		110-89-4
Potassium chlorate		3811-04-9
Potassium cyanide		151-50-8
Potassium nitrate		7757-79-1
Potassium perchlorate		7778-74-7
Potassium permanganate		7722-64-7
Potassium phosphide		20770-41-6
Propadiene	[1,2-Propadiene]	463-49-0
Propane		74-98-6
Propionitrile	[Propanenitrile]	107-12-0
Propyl chloroformate	[Carbonchloridic acid, propylester]	109-61-5
Propylene	[1-Propene]	115-07-1
Propylene oxide	[Oxirane, methyl-]	75-56-9
Propyleneimine	[Aziridine, 2-methyl-]	75-55-8
Propylphosphonothioic dichloride		2524-01-8
Propylphosphonyl difluoride		690-14-2
Propyltrichlorosilane		141-57-1
Propyne	[1-Propyne]	74-99-7
QL	[o-Ethyl-o-2-diisopropylaminoethyl methylphosphonite]	57856-11-8
RDX	[Cyclotrimethylenetrinitramine]	121-82-4
RDX and HMX mixtures		121-82-4
Chemical Of Interest	Synonym	CAS

Sarin	[o-Isopropyl methylphosphonofluoridate]	107-44-8
Selenium hexafluoride		7783-79-1
Sesquimustard	[1,2-Bis(2-chloroethylthio)ethane]	3563-36-8
Silane		7803-62-5
Silicon tetrachloride		10026-04-7
Silicon tetrafluoride		7783-61-1
Sodium azide		26628-22-8
Sodium chlorate		7775-09-9
Sodium cyanide		143-33-9
Sodium hydrosulfite	[Sodium dithionite]	7775-14-6
Sodium nitrate		7631-99-4
Sodium phosphide		12058-85-4
Soman	[o-Pinacolyl methylphosphonofluoridate]	96-64-0
Stibine		7803-52-3
Strontium phosphide		12504-16-4
Sulfur dioxide (anhydrous)		7446-09-5
Sulfur tetrafluoride	[Sulfur fluoride (SF ₄), (T-4)-]	7783-60-0
Sulfur trioxide		7446-11-9
Sulfuryl chloride		7791-25-5
Tabun	[o-Ethyl-N,N-dimethylphosphoramido-cyanidate]	77-81-6
Tellurium hexafluoride		7783-80-4
Tetrafluoroethylene	[Ethene, tetrafluoro-]	116-14-3
Tetramethyllead	[Plumbane, tetramethyl-]	75-74-1
Tetramethylsilane	[Silane, tetramethyl-]	75-76-3
Tetranitroaniline		53014-37-2
Tetranitromethane	[Methane, tetranitro-]	509-14-8
Tetrazene	[Guanyl nitrosaminoguanyltetrazene]	109-27-3
1H-Tetrazole		288-94-8
Thiodiglycol	[Bis(2-hydroxyethyl)sulfide]	111-48-8
Thionyl chloride		7719-09-7
Titanium tetrachloride	[Titanium chloride (TiCl ₄) (T-4)-]	7550-45-0
TNT	[Trinitrotoluene]	118-96-7
Torpex	[Hexotonal]	67713-16-0
Trichlorosilane	[Silane, trichloro-]	10025-78-2
Triethanolamine		102-71-6
Triethanolamine hydrochloride		637-39-8
Triethyl phosphite		122-52-1
Trifluoroacetyl chloride		354-32-5
Trifluorochloroethylene	[Ethene, chlorotrifluoro]	79-38-9
Trimethylamine	[Methanamine, N,N-dimethyl-]	75-50-3
Trimethylchlorosilane	[Silane, chlorotrimethyl-]	75-77-4
Trimethyl phosphite		121-45-9
Trinitroaniline		26952-42-1
Trinitroanisole		606-35-9
Trinitrobenzene		99-35-4
Trinitrobenzenesulfonic acid		2508-19-2

Trinitrobenzoic acid		129-66-8
Chemical Of Interest	Synonym	CAS
Trinitrochlorobenzene		88-88-0
Trinitrofluorenone		129-79-3
Trinitro-meta-cresol		602-99-3
Trinitronaphthalene		55810-17-8
Trinitrophenetole		4732-14-3
Trinitrophenol		88-89-1
Trinitroresorcinol		82-71-3
Tritonal		54413-15-9
Tungsten hexafluoride		7783-82-6
Vinyl acetate monomer	[Acetic acid ethenyl ester]	108-05-4
Vinyl acetylene	[1-Buten-3-yne]	689-97-4
Vinyl chloride	[Ethene, chloro-]	75-01-4
Vinyl ethyl ether	[Ethene, ethoxy-]	109-92-2
Vinyl fluoride	[Ethene, fluoro-]	75-02-5
Vinyl methyl ether	[Ethene, methoxy-]	107-25-5
Vinylidene chloride	[Ethene, 1,1-dichloro-]	75-35-4
Vinylidene fluoride	[Ethene, 1,1-difluoro-]	75-38-7
Vinyltrichlorosilane		75-94-5
VX	[o-Ethyl-S-2-diisopropylaminoethyl methyl phosphonothiolate]	50782-69-9
Zinc hydrosulfite	[Zinc dithionite]	7779-86-4