

A P P E N D I X A

- **Appendix A: SARA Title III Extremely Hazardous Substances**

APPENDIX A: SARA Title III Extremely Hazardous Substances

SARA Title III EXTREMELY HAZARDOUS SUBSTANCES

CAS	EHS NAME	TPQ*	CAS	EHS NAME	TPQ*
108054	Acetic acid ethenyl ester	1,000	534076	Bis(chloromethyl) ketone	10/10,000
75865	Acetone cyanohydrin	1,000	4044659	Bitoscanate	500/10,000
1752303	Acetone thiosemicarbazide	1,000/10,000	10294345	Borane, trichloro-	500
107028	Acrolein	500	7637072	Borane, trifluoro-	500
79061	Acrylamide	1,000/10,000	10294345	Boron trichloride	500
107131	Acrylonitrile	10,000	7637072	Boron trifluoride	500
814686	Acrylyl chloride	100		Boron trifluoride compound with methyl ether (1:1)	1,000
111693	Adiponitrile	1,000	353424	Boron, trifluoro[oxybis(methane)], (T-4)-	1,000
116063	Aldicarb	100/10,000	353424	Bromadiolone	100/10,000
309002	Aldrin	500/10,000	28772567	Bromine	500
107186	Allyl alcohol	1,000	7726956	Bromomethane	1,000
107119	Allylamine	500	74839	2-Butenal	1,000
20859738	Aluminum phosphide	500	4170303	2-Butenal, (e)-	1,000
2763964	5-(Aminomethyl)-3-isoxazolol	500/10,000	123739	Cadmium oxide	100/10,000
54626	Aminopterin	500/10,000	1306190	Cadmium stearate	1,000/10,000
504245	4-Aminopyridine	500/10,000	2223930	Calcium arsenate	500/10,000
78535	Amiton	500	7778441	Campechlor	500/10,000
3734972	Amiton oxalate	100/10,000	8001352	Camphene, octachloro-	500/10,000
7664417	Ammonia	500	8001352	Cantharidin	100/10,000
300629	Amphetamine	1,000	56257	Carbachol chloride	500/10,000
62533	Aniline	1,000	51832	Carbamic acid, methyl-, O-(((2,4-dimethyl-1,3-dithiolan-2-yl)methylene)amino)-	100/10,000
88051	Aniline, 2,4,6-trimethyl-	500	26419738	Carbofuran	10/10,000
7783702	Antimony pentafluoride	500	1563662	Carbon disulfide	10,000
1397940	Antimycin A	1,000/10,000	75150	Carbonic dichloride	10
86884	ANTU	500/10,000	75445	Carbonochloridic acid, methylester	500
1303282	Arsenic pentoxide	100/10,000	79221	Carbonochloridic acid, 1-methylethyl ester	1,000
1327533	Arsenic trioxide	100/10,000	108236	Carbonochloridic acid, propylester	500
1327533	Arsenous oxide	100/10,000	109615	Carbophenothion	500
7784341	Arsenous trichloride	500	786196	Chlordane	1,000
7784421	Arsine	100	57749	Chlorfenvinfos	500
2642719	Azinphos-ethyl	100/10,000	470906	Chlorine	100
86500	Azinphos-methyl	10/10,000	7782505	Chlormephos	500
151564	Aziridine	500	24934916	Chlormequat chloride	100/10,000
75558	Aziridine, 2-methyl	10,000	999815	Chloroacetic acid	100/10,000
98873	Benzal chloride	500	79118	Chloroethanol	500
98168	Benzenamine, 3-(trifluoromethyl)-	500	107073	Chloroethyl chloroformate	1,000
98055	Benzenearsonic acid	10/10,000	627112	Chloroform	10,000
100141	Benzene, 1-(chloromethyl)-4-nitro-	500/10,000	67663	Chloromethyl ether	100
584849	Benzene, 2,4-diisocyanato-1-methyl-	500	542881	Chloromethyl methyl ether	100
91087	Benzene, 1,3-diisocyanato-2-methyl-	100	107302	Chlorophacinone	100/10,000
108985	Benzenethiol	500	542767	3-Chloropropionitrile	1,000
	Benimidazole, 4,5-dichloro-2-(trifluoromethyl)-	500/10,000	1982474	Chloroxuron	500/10,000
3615212	Benzoic trichloride	100	21923239	Chlorthiophos	500
98077	Benzoic trichloride	100	10025737	Chromic chloride	1/10,000
98077	Benzoic trichloride	100	10210681	Cobalt carbonyl	10/10,000
100447	Benzyl chloride	500		Cobalt, ((2,2'-(1,2-ethanediybis(nitrilomethylidyne))bis(6-fluorophenylato))(2-)-N,N',O,O')-	100/10,000
140294	Benzyl cyanide	500	64868	Colchicine	10/10,000
	Bicyclo[2.2.1]heptane-2-carbonitrile, 5-chloro-6-(((methylamino)carbonyloxy)imino)-(1-alpha,2-beta,4-alpha,5-alpha,6E))-	500/10,000			
15271417	2,2'-Bioxirane	500			
1464535	Bis(2-chloroethyl) ether	10,000			
111444	Bis(chloromethyl) ether	100			

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CAS	EHS NAME	TPQ*	CAS	EHS NAME	TPQ*
56724	Coumaphos	100/10,000	534521	4,6-Dinitro-o-cresol	10/10,000
5836293	Coumatetralyl	500/10,000	534521	Dinitrocresol	10/10,000
95487	o-Cresol	1,000/10,000	88857	Dinoseb	100/10,000
535897	Crimidine	100/10,000	1420071	Dinoterb	500/10,000
4170303	Crotonaldehyde	1,000	78342	Dioxathion	500
123739	Crotonaldehyde, (E)-	1,000	82666	Diphacinone	10/10,000
12002038	Cupric acetoarsenite	500/10,000	152169	Diphosphoramidate, octamethyl-	100
506683	Cyanogen bromide	500/10,000	298044	Disulfoton	500
506785	Cyanogen iodide	1,000/10,000	514738	Dithiazanine iodide	500/10,000
2636262	Cyanophos	1,000	541537	Dithiobiuret	100/10,000
675149	Cyanuric fluoride	100	541537	2,4-Dithiobiuret	100/10,000
108918	Cyclohexanamine	10,000	316427	Emetine, dihydrochloride	1/10,000
	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1.alpha.,2.alpha.,3.beta.,4.alpha.,5.alpha.,6.beta.)-	1,000/10,000	115297	Endosulfan	10/10,000
58899		1,000/10,000	2778043	Endothion	500/10,000
66819	Cycloheximide	100/10,000	72208	Endrin	500/10,000
108918	Cyclohexylamine	10,000	106898	Epichlorohydrin	1,000
17702419	Decaborane(14)	500/10,000	2104645	EPN	100/10,000
8065483	Demeton	500	50146	Ergocalciferol	1,000/10,000
919868	Demeton-S-methyl	500	379793	Ergotamine tartrate	500/10,000
10311849	Dialifor	100/10,000	107153	1,2-Ethanediamine	10,000
19287457	Diborane	100	79210	Ethaneperoxy acid	500
19287457	Diborane(6)	100	1622328	Ethanesulfonyl chloride, 2-chloro-	500
110576	trans-1,4-Dichloro-2-butene	500	505602	Ethane, 1,1'-thiobis[2-chloro-	500
110576	trans-1,4-Dichlorobutene	500		Ethanimidothioic acid, N-[[methylamino]carbonyl]	500/10,000
111444	Dichloroethyl ether	10,000	10140871	Ethanol, 1,2-dichloro-, acetate	1,000
542881	Dichloromethyl ether	100	563122	Ethion	1,000
149746	Dichloromethylphenylsilane	1,000	13194484	Ethoprop	1,000
696286	Dichlorophenylarsine	500	13194484	Ethoprophos	1,000
62737	Dichlorvos	1,000	538078	Ethylbis(2-chloroethyl)amine	500
141662	Dicrotophos	100	107120	Ethyl cyanide	500
1464535	Diepoxybutane	500	107153	Ethylenediamine	10,000
814493	Diethyl chlorophosphate	500	371620	Ethylene fluorohydrin	10
	O,O-Diethyl O-pyrazinyl phosphorothioate	500	151564	Ethyleneimine	500
297972		500	75218	Ethylene oxide	1,000
71636	Digitoxin	100/10,000	542905	Ethylthiocyanate	10,000
2238075	Diglycidyl ether	1,000	22224926	Fenamiphos	10/10,000
20830755	Digoxin	10/10,000	115902	Fensulfotion	500
115264	Dimefox	500	4301502	Fluometil	100/10,000
	1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1.alpha.,4.alpha.,4a.beta.,5.alpha.,8.alpha.,8a.beta.)-	500/10,000	7782414	Fluorine	500
309002		500/10,000	640197	Fluoroacetamide	100/10,000
60515	Dimethoate	500/10,000	144490	Fluoroacetic acid	10/10,000
2524030	Dimethyl chlorothiophosphate	500	62748	Fluoroacetic acid, sodium salt	10/10,000
75785	Dimethyldichlorosilane	500	359068	Fluoroacetyl chloride	10
57147	1,1-Dimethyl hydrazine	1,000	51218	Fluorouracil	500/10,000
57147	Dimethylhydrazine	1,000	944229	Fonofos	500
99989	Dimethyl-p-phenylenediamine	10/10,000	50000	Formaldehyde	500
2524030	Dimethyl phosphorochloridothioate	500	107164	Formaldehyde cyanohydrin	1,000
77781	Dimethyl sulfate	500	23422539	Formetanate hydrochloride	500/10,000
644644	Dimetilan	500/10,000	2540821	Formothion	100
88857	Dinitrobutyl phenol	100/10,000	17702577	Formparanate	100/10,000
			21548323	Fosthietan	500
			3878191	Fuberidazole	100/10,000

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110009	Furan	500	542881	Methane, oxybis(chloro-	100
13450903	Gallium trichloride	500/10,000	594423	Methanesulfonyl chloride, trichloro-	500
58899	Hexachlorocyclohexane (gamma isomer)	1,000/10,000	558258	Methanesulfonyl fluoride	1,000
77474	Hexachlorocyclopentadiene	100	509148	Methane, tetranitro-	500
4835114	Hexamethylenediamine, N,N'-dibutyl-	500	74931	Methanethiol	500
302012	Hydrazine	1,000	67663	Methane, trichloro-	10,000
57147	Hydrazine, 1,1-dimethyl-	1,000		4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-	
60344	Hydrazine, methyl-	500	57749	octachloro-2,3,3a,4,7,7a-hexahydro-	1,000
74908	Hydrocyanic acid	100	950378	Methidathion	500/10,000
7664393	Hydrofluoric acid	100	2032657	Methiocarb	500/10,000
7647010	Hydrogen chloride (gas only)	500	16752775	Methomyl	500/10,000
74908	Hydrogen cyanide	100	151382	Methoxyethylmercuric acetate	500/10,000
7664393	Hydrogen fluoride	100	74839	Methyl bromide	1,000
7722841	Hydrogen peroxide (Conc.> 52%)	1,000	80637	Methyl 2-chloroacrylate	500
7783075	Hydrogen selenide	10	79221	Methyl chlorocarbonate	500
7783064	Hydrogen sulfide	500	79221	Methyl chloroformate	500
123319	Hydroquinone	500/10,000	60344	Methyl hydrazine	500
13463406	Iron carbonyl (Fe(CO) ₅), (TB-5-11)-	100	624839	Methyl isocyanate	500
13463406	Iron, pentacarbonyl-	100	556616	Methyl isothiocyanate	500
297789	Isobenzan	100/10,000	75865	2-Methylactonitrile	1,000
78820	Isobutyronitrile	1,000	74931	Methyl mercaptan	500
102363	Isocyanic acid, 3,4-dichlorophenyl ester	500/10,000	502396	Methylmercuric dicyanamide	500/10,000
465736	Isodrin	100/10,000	298000	Methyl parathion	100/10,000
55914	Isofluorophate	100	3735237	Methyl phenkapton	500
4098719	Isophorone diisocyanate	500	676971	Methyl phosphonic dichloride	100
108236	Isopropyl chloroformate	1,000	556649	Methyl thiocyanate	10,000
119380	Isopropylmethylpyrazolyl dimethylcarbamate	500	75796	Methyltrichlorosilane	500
556616	Isothiocyanatomethane	500	78944	Methyl vinyl ketone	10
78977	Lactonitrile	1,000	1129415	Metolcarb	100/10,000
21609905	Leptophos	500/10,000	7786347	Mevinphos	500
541253	Lewisite	10	315184	Mexacarbate	500/10,000
58899	Lindane	1,000/10,000	50077	Mitomycin C	500/10,000
7580678	Lithium hydride	100	6923224	Monocrotophos	10/10,000
109773	Malononitrile	500/10,000	2763964	Muscimol	500/10,000
12108133	Manganese, tricarbonyl methylcyclopentadienyl	100	505602	Mustard gas	500
51752	Mechlorethamine	10	13463393	Nickel carbonyl	1
950107	Mephosfolan	500	54115	Nicotine	100
2032657	Mercaptodimethur	500/10,000	65305	Nicotine sulfate	100/10,000
1600277	Mercuric acetate	500/10,000	7697372	Nitric acid	1,000
7487947	Mercuric chloride	500/10,000	10102439	Nitric oxide	100
21908532	Mercuric oxide	500/10,000	98953	Nitrobenzene	10,000
10476956	Methacrolein diacetate	1,000	1122607	Nitrocyclohexane	500
760930	Methacrylic anhydride	500	10102440	Nitrogen dioxide	100
126987	Methacrylonitrile	500	10102439	Nitrogen oxide (NO)	100
920467	Methacryloyl chloride	100	62759	N-Nitrosodimethylamine	1,000
30674807	Methacryloyloxyethyl isocyanate	100	62759	Nitrosodimethylamine	1,000
10265926	Methamidophos	100/10,000	991424	Norbormide	100/10,000
62759	Methanamine, N-methyl-N-nitroso-	1,000		Organorhodium Complex (PMN-	
107302	Methane, chloromethoxy-	100	0	82-147)	10/10,000
624839	Methane, isocyanato-	500	630604	Ouabain	100/10,000
			23135220	Oxamyl	100/10,000
			78717	Oxetane, 3,3-bis(chloromethyl)-	500
			75218	Oxirane	1,000

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CAS	EHS NAME	TPQ*	CAS	EHS NAME	TPQ*
106898	Oxirane, (chloromethyl)-	1,000	124878	Picrotoxin	500/10,000
75569	Oxirane, methyl-	10,000	110894	Piperidine	1,000
2497076	Oxydisulfoton	500	23505411	Pirimifos-ethyl	1,000
10028156	Ozone	100	75741	Plumbane, tetramethyl-	100
1910425	Paraquat dichloride	10/10,000	10124502	Potassium arsenite	500/10,000
2074502	Paraquat methosulfate	10/10,000	151508	Potassium cyanide	100
56382	Parathion	100	506616	Potassium silver cyanide	500
298000	Parathion-methyl	100/10,000	2631370	Promecarb	500/10,000
12002038	Paris green	500/10,000	107120	Propanenitrile	500
19624227	Pentaborane	500	78820	Propanenitrile, 2-methyl-	1,000
2570265	Pentadecylamine	100/10,000	106967	Propargyl bromide	10
79210	Peracetic acid	500	107028	2-Propenal	500
594423	Perchloromethyl mercaptan	500	107119	2-Propen-1-amine	500
108952	Phenol	500/10,000	107131	2-Propenenitrile	10,000
64006	Phenol, 3-(1-methylethyl)-, methylcarbamate	500/10,000	126987	2-Propenenitrile, 2-methyl-	500
4418660	Phenol, 2,2'-thiobis[4-chloro-6-methyl-	100/10,000	107186	2-Propen-1-ol	1,000
58366	Phenoxarsine, 10,10'-oxydi-	500/10,000	814686	2-Propenoyl chloride	100
696286	Phenyl dichloroarsine	500	57578	beta-Propiolactone	500
59881	Phenylhydrazine hydrochloride	1,000/10,000	107120	Propionitrile	500
62384	Phenylmercuric acetate	500/10,000	542767	Propionitrile, 3-chloro-	1,000
62384	Phenylmercury acetate	500/10,000	70699	Propiophenone, 4'-amino	100/10,000
2097190	Phenylsilatrane	100/10,000	109615	Propyl chloroformate	500
103855	Phenylthiourea	100/10,000	75558	Propyleneimine	10,000
298022	Phorate	10	75569	Propylene oxide	10,000
4104147	Phosacetim	100/10,000	2275185	Prothoate	100/10,000
947024	Phosfolan	100/10,000	129000	Pyrene	1,000/10,000
75445	Phosgene	10	504245	Pyridine, 4-amino-	500/10,000
13171216	Phosphamidon	100	140761	Pyridine, 2-methyl-5-vinyl-	500
7803512	Phosphine	500	1124330	Pyridine, 4-nitro-, 1-oxide	500/10,000
2703131	Phosphonothioic acid, methyl-, O-ethyl O-(4-(methylthio)phenyl) ester	500	53558251	Pyriminil	100/10,000
50782699	Phosphonothioic acid, methyl-, S-(2-(bis(1-methylethyl)amino)ethyl) O-ethyl ester	100	14167181	Salcomine	500/10,000
2665307	Phosphonothioic acid, methyl-, O-(4-nitrophenyl) O-phenyl ester	500	107448	Sarin	10
62737	Phosphoric acid, 2-dichloroethyl dimethyl ester	1,000	7783008	Selenious acid	1,000/10,000
3254635	Phosphoric acid, dimethyl 4-(methylthio) phenyl ester	500	7791233	Selenium oxychloride	500
13194484	Phosphorodithioic acid O-ethyl S,S-dipropyl ester	1,000	563417	Semicarbazide hydrochloride	1,000/10,000
56382	Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	100	3037727	Silane, (4-aminobutyl)diethoxymethyl-	1,000
2587908	Phosphorothioic acid, O,O-dimethyl-5-(2-(methylthio)ethyl)ester	500	75774	Silane, chlorotrimethyl-	1,000
7719122	Phosphorous trichloride	1,000	75785	Silane, dichlorodimethyl-	500
7723140	Phosphorus	100	75796	Silane, trichloromethyl-	500
10025873	Phosphorus oxychloride	500	7631892	Sodium arsenate	1,000/10,000
10026138	Phosphorus pentachloride	500	7784465	Sodium arsenite	500/10,000
7719122	Phosphorus trichloride	1,000	26628228	Sodium azide (Na(N3))	500
10025873	Phosphoryl chloride	500	124652	Sodium cacodylate	100/10,000
57476	Physostigmine	100/10,000	143339	Sodium cyanide (Na(CN))	100
57647	Physostigmine, salicylate (1:1)	100/10,000	62748	Sodium fluoroacetate	10/10,000
			13410010	Sodium selenate	100/10,000
			10102188	Sodium selenite	100/10,000
			10102202	Sodium tellurite	500/10,000
			900958	Stannane, acetoxyltriphenyl-	500/10,000
			57249	Strychnine	100/10,000
			60413	Strychnine, sulfate	100/10,000
			3689245	Sulfotep	500
			3569571	Sulfoxide, 3-chloropropyl octyl	500

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7446095	Sulfur dioxide	500	86884	Thiourea, 1-naphthalenyl-	500/10,000
7783600	Sulfur fluoride (SF4), (T-4)-	100	7550450	Titanium chloride (TiCl4) (T-4)-	100
7664939	Sulfuric acid	1,000	7550450	Titanium tetrachloride	100
7783600	Sulfur tetrafluoride	100	584849	Toluene-2,4-diisocyanate	500
7446119	Sulfur trioxide	100	91087	Toluene-2,6-diisocyanate	100
77816	Tabun	10	8001352	Toxaphene	500/10,000
7783804	Tellurium hexafluoride	100	1031476	Triamiphos	500/10,000
107493	TEPP	100	24017478	Triazofos	500
13071799	Terbufos	100	76028	Trichloroacetyl chloride	500
3689245	Tetraethyldithiopyrophosphate	500	1558254	Trichloro(chloromethyl)silane	100
78002	Tetraethyl lead	100	27137855	Trichloro(dichlorophenyl)silane	500
107493	Tetraethyl pyrophosphate	100	115219	Trichloroethylsilane	500
597648	Tetraethyltin	100	594423	Trichloromethanesulfonyl chloride	500
75741	Tetramethyllead	100	327980	Trichloronate	500
509148	Tetranitromethane	500	98135	Trichlorophenylsilane	500
6533739	Thallium(I) carbonate	100/10,000	998301	Triethoxysilane	500
7791120	Thallium chloride TlCl	100/10,000	75774	Trimethylchlorosilane	1,000
7446186	Thallium(I) sulfate	100/10,000	824113	Trimethylolpropane phosphite	100/10,000
10031591	Thallium sulfate	100/10,000	1066451	Trimethyltin chloride	500/10,000
6533739	Thallos carbonate	100/10,000	639587	Triphenyltin chloride	500/10,000
7791120	Thallos chloride	100/10,000	555771	Tris(2-chloroethyl)amine	100
2757188	Thallos malonate	100/10,000	2001958	Valinomycin	1,000/10,000
7446186	Thallos sulfate	100/10,000	1314621	Vanadium pentoxide	100/10,000
2231574	Thiocarbazine	1,000/10,000	108054	Vinyl acetate	1,000
556649	Thiocyanic acid, methyl ester	10,000	108054	Vinyl acetate monomer	1,000
39196184	Thiofanox	100/10,000	81812	Warfarin	500/10,000
74931	Thiomethanol	500	129066	Warfarin sodium	100/10,000
297972	Thionazin	500	28347139	Xylylene dichloride	100/10,000
108985	Thiophenol	500		Zinc, dichloro(4,4-dimethyl-5(((methylamino)carbonyl)oxy)imino)pentanenitrile)-, (T-4)-	100/10,000
79196	Thiosemicarbazide	100/10,000	58270089		100/10,000
5344821	Thiourea, (2-chlorophenyl)-	100/10,000	1314847	Zinc phosphide	500
614788	Thiourea, (2-methylphenyl)-	500/10,000			

*TPQ = Threshold Planning Quantity in pounds. For some solid chemicals, there are two TPQs (e.g. 500/10,000). The lower TPQ applies to solids in powder form, in solution, or in molten form.