

49 CFR 172.101 and 171.8

Appendix A to Sec. 172.101--List of Hazardous Substances and Reportable Quantities

1. This appendix lists materials and their corresponding reportable quantities (RQ's) that are listed or designated as ``hazardous substances'' under section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601(14) (CERCLA; 42 U.S.C. 9601 et seq). This listing fulfills the requirement of CERCLA, 42 U.S.C. 9656(a), that all ``hazardous substances,'' as defined in 42 U.S.C. 9601(14), be listed and regulated as hazardous materials under 49 U.S.C. 5101-5127. That definition includes substances listed under sections 311(b)(2)(A) and 307(a) of the Federal Water Pollution Control Act, 33 U.S.C. 1321(b)(2)(A) and 1317(a), section 3001 of the Solid Waste Disposal Act, 42 U.S.C. 6921, and section 112 of the Clean Air Act, 42 U.S.C. 7412. In addition, this list contains materials that the Administrator of the Environmental Protection Agency has determined to be hazardous substances in accordance with section 102 of CERCLA, 42 U.S.C. 9602. It should be noted that 42 U.S.C. 9656(b) provides that common and contract carriers may be held liable under laws other than CERCLA for the release of a hazardous substance as defined in that Act, during transportation that commenced before the effective date of the listing and regulating of that substance as a hazardous material under 49 U.S.C. 5101-5127.

2. This appendix is divided into two TABLES which are entitled ``TABLE 1--HAZARDOUS SUBSTANCES OTHER THAN RADIONUCLIDES'' and ``TABLE 2--RADIONUCLIDES.'' A material listed in this appendix is regulated as a hazardous material and a hazardous substance under this subchapter if it meets the definition of a hazardous substance in Sec. 171.8 of this subchapter.

3. The procedure for selecting a proper shipping name for a hazardous substance is set forth in Sec. 172.101(c)(8).

4. Column 1 of TABLE 1, entitled ``Hazardous substance'', contains the names of those elements and compounds that are hazardous substances. Following the listing of elements and compounds is a listing of waste streams. These waste streams appear on the list in numerical sequence and are referenced by the appropriate ``D'', ``F'', or ``K'' numbers. Column 2 of TABLE 1, entitled ``Reportable quantity (RQ)'', contains the reportable quantity (RQ), in pounds and kilograms, for each hazardous substance listed in Column 1 of TABLE 1.

5. A series of notes is used throughout TABLE 1 and TABLE 2 to provide additional information concerning certain hazardous substances. These notes are explained at the end of each TABLE.

6. TABLE 2 lists radionuclides that are hazardous substances and their corresponding RQ's. The RQ's in table 2 for radionuclides are expressed in units of curies and terabecquerels, whereas those in table 1 are expressed in units of pounds and kilograms. If a material is listed in both table 1 and table 2, the lower RQ shall apply. Radionuclides are listed in alphabetical order. The RQ's for radionuclides are given in the radiological unit of measure of curie, abbreviated ``Ci'', followed, in parentheses, by an equivalent unit measured in terabecquerels, abbreviated ``TBq''.

7. For mixtures of radionuclides, the following requirements shall be used in determining if a package contains an RQ of a hazardous

substance: (i) if the identity and quantity (in curies or terabecquerels) of each radionuclide in a mixture or solution is known, the ratio between the quantity per package (in curies or terabecquerels) and the RQ for the radionuclide must be determined for each radionuclide. A package contains an RQ of a hazardous substance when the sum of the ratios for the radionuclides in the mixture or solution is equal to or greater than one; (ii) if the identity of each radionuclide in a mixture or solution is known but the quantity per package (in curies or terabecquerels) of one or more of the radionuclides is unknown, an RQ of a hazardous substance is present in a package when the total quantity (in curies or terabecquerels) of the mixture or solution is equal to or greater than the lowest RQ of any individual radionuclide in the mixture or solution; and (iii) if the identity of one or more radionuclides in a mixture or solution is unknown (or if the identity of a radionuclide by itself is unknown), an RQ of a hazardous substance is present when the total quantity (in curies or terabecquerels) in a package is equal to or greater than either one curie or the lowest RQ of any known individual radionuclide in the mixture or solution, whichever is lower.

Table 1 to Appendix A--Hazardous Substances Other Than Radionuclides

Hazardous substance	Reportable quantity (RQ) pounds (kilograms)
Acenaphthene.....	100 (45.4)
Acenaphthylene.....	5000 (2270)
Acetaldehyde.....	1000 (454)
Acetaldehyde, chloro-.....	1000 (454)
Acetaldehyde, trichloro-.....	5000 (2270)

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Acetamide.....	100 (45.4)
Acetamide, N-(aminothioxomethyl)-.....	1000 (454)
Acetamide, N-(4-ethoxyphenyl)-.....	100 (45.4)
Acetamide, N-fluoren-2-yl-.....	1 (0.454)
Acetamide, 2-fluoro-.....	100 (45.4)
Acetic acid.....	5000 (2270)
Acetic acid (2,4-dichlorophenoxy)-.....	100 (45.4)
Acetic acid, ethyl ester.....	5000 (2270)
Acetic acid, fluoro-, sodium salt.....	10 (4.54)
Acetic acid, lead (2+) salt.....	10 (4.54)
Acetic acid, thallium(I+) salt.....	1000 (454)
Acetic anhydride.....	5000 (2270)
Acetone.....	5000 (2270)
Acetone cyanohydrin.....	10 (4.54)
Acetonitrile.....	5000 (2270)
Acetophenone.....	5000 (2270)
2-Acetylaminofluorene.....	1 (0.454)
Acetyl bromide.....	5000 (2270)
Acetyl chloride.....	5000 (2270)
1-Acetyl-2-thiourea.....	1 (0.454)
Acrylamide.....	5000 (2270)
Acrylic acid.....	5000 (2270)
Acrylonitrile.....	100 (45.4)
Adipic acid.....	5000 (2270)
AldicarbD1 (0.454).....	

Aldrin.....	1 (0.454)
Allyl alcohol.....	100 (45.4)
Allyl chloride.....	1000 (454)
Aluminum phosphide.....	100 (45.4)
Aluminum sulfate.....	5000 (2270)
4-Aminobiphenyl.....	1 (0.454)
5-(Aminomethyl)-3-isoxazolol.....	1000 (454)
4-Aminopyridine.....	1000 (454)
Amitrole.....	10 (4.54)
Ammonia.....	100 (45.4)
Ammonium acetate.....	5000 (2270)
Ammonium benzoate.....	5000 (2270)
Ammonium bicarbonate.....	5000 (2270)
Ammonium bichromate.....	10 (4.54)
Ammonium bifluoride.....	100 (45.4)
Ammonium bisulfite.....	5000 (2270)
Ammonium carbamate.....	5000 (2270)
Ammonium carbonate.....	5000 (2270)
Ammonium chloride.....	5000 (2270)
Ammonium chromate.....	10 (4.54)
Ammonium citrate, dibasic.....	5000 (2270)
Ammonium dichromate @.....	10 (4.54)
Ammonium fluoborate.....	5000 (2270)
Ammonium fluoride.....	100 (45.4)
Ammonium hydroxide.....	1000 (454)
Ammonium oxalate.....	5000 (2270)
Ammonium picrate.....	10 (4.54)
Ammonium silicofluoride.....	1000 (454)
Ammonium sulfamate.....	5000 (2270)
Ammonium sulfide.....	100 (45.4)
Ammonium sulfite.....	5000 (2270)
Ammonium tartrate.....	5000 (2270)
Ammonium thiocyanate.....	5000 (2270)
Ammonium vanadate.....	1000 (454)
Amyl acetate.....	5000 (2270)
iso-Amyl acetate.....
sec-Amyl acetate.....
tert-Amyl acetate.....

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Aniline.....	5000 (2270)
o-Anisidine.....	100 (45.4)
Anthracene.....	5000 (2270)
Antimony cents.....	5000 (2270)
Antimony pentachloride.....	1000 (454)
Antimony potassium tartrate.....	100 (45.4)
Antimony tribromide.....	1000 (454)
Antimony trichloride.....	1000 (454)
Antimony trifluoride.....	1000 (454)
Antimony trioxide.....	1000 (454)
Argentate(1-), bis(cyano-C)-, potassium.....	1 (0.454)
Aroclor 1016.....	1 (0.454)
Aroclor 1221.....	1 (0.454)
Aroclor 1232.....	1 (0.454)
Aroclor 1242.....	1 (0.454)
Aroclor 1248.....	1 (0.454)
Aroclor 1254.....	1 (0.454)
Aroclor 1260.....	1 (0.454)
Arsenic cents.....	1 (0.454)

Arsenic acid.....	1 (0.454)
Arsenic acid H3AsO4.....	1 (0.454)
Arsenic disulfide.....	1 (0.454)
Arsenic oxide As2O3.....	1 (0.454)
Arsenic oxide As2O5.....	1 (0.454)
Arsenic pentoxide.....	1 (0.454)
Arsenic trichloride.....	1 (0.454)
Arsenic trioxide.....	1 (0.454)
Arsenic trisulfide.....	1 (0.454)
Arsine, diethyl-.....	1 (0.454)
Arsinic acid, dimethyl-.....	1 (0.454)
Arsonous dichloride, phenyl-.....	1 (0.454)
Asbestos cents cents.....	1 (0.454)
Auramine100 (45.4).....	
Azaserine.....	1 (0.454)
Aziridine.....	1 (0.454)
Aziridine, 2-methyl-.....	1 (0.454)
Azirino[2',3':3,4]pyrrolo(1,2-a)indole-4,7-dione,6-amino-8-[[(aminocarbonyl)oxy] methyl]-1,1a,2,8,8a, 8b-hexahydro-8a-methoxy-5-methyl-, [1aS-[aalpha,8beta,8aalp,8balp)]-.....	10 (4.54)
Barium cyanide.....	10 (4.54)
Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-.....	10 (4.54)
Benz[c]acridine.....	100 (45.4)
3,4-Benzacridine.....	100 (45.4)
Benzal chloride.....	5000 (2270)
Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl).....	5000 (2270)
Benz[a]anthracene.....	10 (4.54)
1,2-Benzanthracene.....	10 (4.54)
Benz[a]anthracene, 7,12-dimethyl-.....	1 (0.454)
Benzenamine.....	5000 (2270)
Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl-.....	100 (45.4)
Benzenamine, 4-chloro-.....	1000 (454)
Benzenamine, 4-chloro-2-methyl-, hydrochloride.....	100 (45.4)
Benzenamine, N,N-dimethyl-4-(phenylazo)-.....	10 (4.54)
Benzenamine, 2-methyl-.....	100 (45.4)
Benzenamine, 4-methyl-.....	100 (45.4)
Benzenamine, 4,4'-methylenebis(2-chloro-.....	10 (4.54)
Benzenamine, 2-methyl-, hydrochloride.....	100 (45.4)
Benzenamine, 2-methyl-5-nitro-.....	100 (45.4)
Benzenamine, 4-nitro-.....	5000 (2270)
Benzene.....	10 (4.54)
Benzene, 1-bromo-4-phenoxy-.....	100 (45.4)
Benzene, chloro-.....	100 (45.4)
Benzene, chloromethyl-.....	100 (45.4)
Benzene, 1,2-dichloro-.....	100 (45.4)
Benzene, 1,3-dichloro-.....	100 (45.4)
Benzene, 1,4-dichloro-.....	100 (45.4)
Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro.....	1 (0.454)
Benzene, dichloromethyl-.....	5000 (2270)
Benzene, 1,3-diisocyanatomethyl.....	100 (45.4)
Benzene, dimethyl-.....	100 (45.4)
Benzene, m-dimethyl-.....	1000 (454)
Benzene, o-dimethyl-.....	1000 (454)
Benzene, p-dimethyl-.....	100 (45.4)
Benzene, hexachloro-.....	10 (4.54)
Benzene, hexahydro-.....	1000 (454)
Benzene, hydroxy-.....	1000 (454)
Benzene, methyl-.....	1000 (454)
Benzene, 1-methyl-2,4-dinitro-.....	10 (4.54)

Benzene, 2-methyl-1,3-dinitro-.....	100 (45.4)
Benzene, 1-methylethyl-.....	5000 (2270)
Benzene, nitro-.....	1000 (454)
Benzene, pentachloro-.....	10 (4.54)
Benzene, pentachloronitro-.....	100 (45.4)
Benzene, 1,2,4,5-tetrachloro-.....	5000 (2270)
Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-..	1 (0.454)
Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy)-	1 (0.454)
Benzene, (trichloromethyl).....	10 (4.54)
Benzene, 1,3,5-trinitro-.....	10 (4.54)
Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)- alpha-hydroxy-, ethyl ester.....	10 (4.54)
Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-.....	10 (4.54)
Benzenediamine, ar-methyl-.....	10 (4.54)
1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester.	100 (45.4)
1,2-Benzenedicarboxylic acid, dibutyl ester.....	10 (4.54)
1,2-Benzenedicarboxylic acid, diethyl ester.....	1000 (454)
1,2-Benzenedicarboxylic acid, dimethyl ester.....	5000 (2270)
1,2-Benzenedicarboxylic acid, dioctyl ester.....	5000 (2270)
1,3-Benzenediol.....	5000 (2270)
1,2-Benzenediol,4-[1-hydroxy-2-(methylamino)ethyl]-.....	1000 (454)
Benzenethanamine, alpha,alpha-dimethyl-.....	5000 (2270)
Benzenethanamine, alpha,alpha-dimethyl-.....	5000 (2270)
Benzenesulfonic acid chloride.....	100 (45.4)
Benzenesulfonyl chloride.....	100 (45.4)
Benzenethiol.....	100 (45.4)
Benzidine.....	1 (0.454)
1,2-Benzisothiazol-3(2H)-one,1,1-dioxide.....	100 (45.4)
Benzo[a]anthracene.....	10 (4.54)
1,3-Benzodioxole, 5-(2-propenyl)-.....	100 (45.4)
1,3-Benzodioxole, 5-(1-propenyl)-.....	100 (45.4)
1,3-Benzodioxole, 5-propyl-.....	10 (4.54)
Benzo[b]fluoranthene.....	1 (0.454)
Benzo[k]fluoranthene.....	5000 (2270)
Benzo[j,k]fluorene.....	100 (45.4)
Benzoic acid.....	5000 (2270)
Benzonitrile.....	5000 (2270)
Benzo[g,h,i]perylene.....	5000 (2270)
2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl- butyl)-, & salts, when present at concentrations greater than 0.3%.....	100 (45.4)
Benzo[a]pyrene.....	1 (0.454)
3,4-Benzopyrene.....	1 (0.454)
p-Benzoquinone.....	10 (4.54)
Benzo [rst]pentaphene.....	10 (4.54)
Benzotrichloride.....	10 (4.54)
Benzoyl chloride.....	1000 (454)
1,2-Benzphenanthrene.....	100 (45.4)
Benzyl chloride.....	100 (45.4)
Beryllium cents.....	10 (4.54)
Beryllium chloride.....	1 (0.454)
Beryllium dust cents.....	10 (4.54)
Beryllium fluoride.....	1 (0.454)
Beryllium nitrate.....	1 (0.454)
alpha - BHC.....	10 (4.54)
beta - BHC.....	1 (0.454)
delta - BHC.....	1 (0.454)
gamma - BHC.....	1 (0.454)
2,2'Bioxirane.....	10 (4.54)

Biphenyl.....	100 (45.4)
(1,1'-Biphenyl)-4,4'-diamine.....	1 (0.454)
(1,1'-Biphenyl)-4,4'-diamine,3,3'-dichloro-.....	1 (0.454)
(1,1'-Biphenyl)-4,4'-diamine,3,3'-dimethoxy-.....	10 (4.54)
(1,1'-Biphenyl)-4,4'-diamine,3,3'-dimethyl-.....	10 (4.54)
Bis(2-chloroethoxy) methane.....	1000 (454)
Bis(2-chloroethyl) ether.....	10 (4.54)
Bis(2-ethylhexyl)phthalate.....	100 (45.4)
Bromoacetone.....	1000 (454)
Bromoform.....	100 (45.4)
4-Bromophenyl phenyl ether.....	100 (45.4)
Brucine.....	100 (45.4)
1,3-Butadiene.....	10 (4.54)

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1,3-Butadiene, 1,1,2,3,4,4-hexachloro-.....	1 (0.454)
1-Butanamine, N-butyl-N-nitroso-.....	10 (4.54)
1-Butanol.....	5000 (2270)
2-Butanone.....	5000 (2270)
2-Butanone, 3,3-dimethyl-1-(methylthio)-,O- [(methylamino)carbonyl] oxime.....	100 (45.4)
2-Butanone peroxide.....	10 (4.54)
2-Butenal.....	100 (45.4)
2-Butene, 1,4-dichloro-.....	1 (0.454)
2-Butenoic acid, 2-methyl-,7[[2,3-dihydroxy-2-(1- methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a- tetrahydro-1H-pyrrolizin-1-yl ester, [1S- [1alpha(Z),7(2S*, 3R*), 7alpha]]-.....	10 (4.54)
Butyl acetate.....	5000 (2270)
iso-Butyl acetate.....	.....
sec-Butyl acetate.....	.....
tert-Butyl acetate.....	.....
n-Butyl alcohol.....	5000 (2270)
Butylamine.....	1000 (454)
iso-Butylamine.....	.....
sec-Butylamine.....	.....
tert-Butylamine.....	.....
Butyl benzyl phthalate.....	100 (45.4)
n-Butyl phthalate.....	10 (4.54)
Butyric acid.....	5000 (2270)
iso-Butyric acid.....	.....
Cacodylic acid.....	1 (0.454)
Cadmium cents.....	10 (4.54)
Cadmium acetate.....	10 (4.54)
Cadmium bromide.....	10 (4.54)
Cadmium chloride.....	10 (4.54)
Calcium arsenate.....	1 (0.454)
Calcium arsenite.....	1 (0.454)
Calcium carbide.....	10 (4.54)
Calcium chromate.....	10 (4.54)
Calcium cyanamide.....	1000 (454)
Calcium cyanide.....	10 (4.54)
Calcium cyanide Ca(CN)2.....	10 (4.54)
Calcium dodecylbenzene sulfonate.....	1000 (454)
Calcium hypochlorite.....	10 (4.54)
Camphene, octachloro-.....	1 (0.454)
Caprolactam.....	5000 (2270)
Captan.....	10 (4.54)
Carbamic acid, ethyl ester.....	100 (45.4)

Carbamic acid, methylnitroso-, ethyl ester.....	1 (0.454)
Carbamic chloride, dimethyl-.....	1 (0.454)
Carbamide, thio-.....	10 (4.54)
Carbamimidoseleonic acid.....	1000 (454)
Carbamothioic acid, bis (1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester.....	100 (45.4)
Carbaryl.....	100 (45.4)
Carbofuran.....	10 (4.54)
Carbon bisulfide.....	100 (45.4)
Carbon disulfide.....	100 (45.4)
Carbonic acid, dithallium (I+)......	100 (45.4)
Carbonic dichloride.....	10 (4.54)
Carbonic difluoride.....	1000 (454)
Carbonochloridic acid, methyl ester.....	1000 (454)
Carbon oxyfluoride.....	1000 (454)
Carbon tetrachloride.....	10 (4.54)
Carbonyl sulfide.....	100 (45.4)
Catechol.....	100 (45.4)
Chloral.....	5000 (2270)
Chloramben.....	100 (45.4)
Chlorambucil.....	10 (4.54)
Chlordane.....	1 (0.454)
Chlordane, alpha & gamma isomers.....	1 (0.454)
Chlordane, technical.....	1 (0.454)
Chlorine.....	10 (4.54)
Chlornaphazine.....	100 (45.4)
Chloroacetaldehyde.....	1000 (454)
Chloroacetic acid.....	100 (45.4)
2-Chloroacetophenone.....	100 (45.4)
p-Chloroaniline.....	1000 (454)

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Chlorobenzene.....	100 (45.4)
Chlorobenzilate.....	10 (4.54)
4-Chloro-m-cresol.....	5000 (2270)
p-Chloro-m-cresol.....	5000 (2270)
Chlorodibromomethane.....	100 (45.4)
Chloroethane.....	100 (45.4)
2-Chloroethyl vinyl ether.....	1000 (454)
Chloroform.....	10 (4.54)
Chloromethane.....	100 (45.4)
Chloromethyl methyl ether.....	1 (0.454)
beta-Chloronaphthalene.....	5000 (2270)
2-Chloronaphthalene.....	5000 (2270)
2-Chlorophenol.....	100 (45.4)
o-Chlorophenol.....	100 (45.4)
4-Chlorophenyl phenyl ether.....	5000 (2270)
1-(o-Chlorophenyl)thiourea.....	100 (45.4)
Chloroprene.....	100 (45.4)
3-Chloropropionitrile.....	1000 (454)
Chlorosulfonic acid.....	1000 (454)
4-Chloro-o-toluidine, hydrochloride.....	100 (45.4)
Chlorpyrifos.....	1 (0.454)
Chromic acetate.....	1000 (454)
Chromic acid.....	10 (4.54)
Chromic acid H2CrO4, calcium salt.....	10 (4.54)
Chromic sulfate.....	1000 (454)
Chromium cents.....	5000 (2270)
Chromous chloride.....	1000 (454)

Chrysene.....	100 (45.4)
Cobaltous bromide.....	1000 (454)
Cobaltous formate.....	1000 (454)
Cobaltous sulfamate.....	1000 (454)
Coke Oven Emissions.....	1 (0.454)
Copper cents.....	5000 (2270)
Copper chloride @.....	10 (4.54)
Copper cyanide.....	10 (4.54)
Copper cyanide CuCN.....	10 (4.54)
Coumaphos.....	10 (4.54)
Creosote.....	1 (0.454)
Cresols (isomers and mixture).....	100 (45.4)
m-Cresol.....	100 (45.4)
o-Cresolo.....	100 (45.4)
p-Cresol.....	100 (45.4)
Cresylic acid (isomers and mixture).....	100 (45.4)
m-Cresylic acid.....	100 (45.4)
o-Cresylic acid.....	100 (45.4)
p-Cresylic acid.....	100 (45.4)
Crotonaldehyde.....	100 (45.4)
Cumene.....	5000 (2270)
Cupric acetate.....	100 (45.4)
Cupric acetoarsenite.....	1 (0.454)
Cupric chloride.....	10 (4.54)
Cupric nitrate.....	100 (45.4)
Cupric oxalate.....	100 (45.4)
Cupric sulfate.....	10 (4.54)
Cupric sulfate ammoniated.....	100 (45.4)
Cupric tartrate.....	100 (45.4)
Cyanides (soluble salts and complexes) not otherwise specified.....	10 (4.54)
Cyanogen.....	100 (45.4)
Cyanogen bromide.....	1000 (454)
Cyanogen bromide (CN)Br.....	1000 (454)
Cyanogen chloride.....	10 (4.54)
Cyanogen chloride (CN)Cl.....	10 (4.54)
2,5-Cyclohexadiene-1,4-dione.....	10 (4.54)
Cyclohexane.....	1000 (454)
Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-.....	1 (0.454)
Cyclohexanone.....	5000 (2270)
2-Cyclohexyl-4,6-dinitrophenol.....	100 (45.4)
1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-.....	10 (4.54)
Cyclophosphamide.....	10 (4.54)
2,4-D Acid.....	100 (45.4)

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2,4-D Ester.....	100 (45.4)
Daunomycin.....	10 (4.54)
DDD.....	1 (0.454)
4,4'-DDD.....	1 (0.454)
DDE.....	5000 (2270)
4,4'-DDE.....	5000 (2270)
DDE.....	1 (0.454)
4,4'-DDE.....	1 (0.454)
DDT.....	1 (0.454)
4,4'-DDT.....	1 (0.454)
Diallate.....	100 (45.4)
Diamine.....	1 (0.454)

Diazinon.....	1 (0.454)
Diazomethane.....	100 (45.4)
Dibenz[a,h]anthracene.....	1 (0.454)
1,2:5,6-Dibenzanthracene.....	1 (0.454)
Dibenzo[a,h]anthracene.....	1 (0.454)
Dibenzofuran.....	100 (45.4)
Dibenz[a,i]pyrene.....	10 (4.54)
1,2-Dibromo-3-chloropropane.....	1 (0.454)
Dibutyl phthalate.....	10 (4.54)
Di-n-butyl phthalate.....	10 (4.54)
Dicamba.....	1000 (454)
Dichlobenil.....	100 (45.4)
Dichlone.....	1 (0.454)
Dichlorobenzene.....	100 (45.4)
1,2-Dichlorobenzene.....	100 (45.4)
1,3-Dichlorobenzene.....	100 (45.4)
1,4-Dichlorobenzene.....	100 (45.4)
m-Dichlorobenzene.....	100 (45.4)
o-Dichlorobenzene.....	100 (45.4)
p-Dichlorobenzene.....	100 (45.4)
3,3'-Dichlorobenzidine.....	1 (0.454)
Dichlorobromomethane.....	5000 (2270)
1,4-Dichloro-2-butene.....	1 (0.454)
Dichlorodifluoromethane.....	5000 (2270)
1,1-Dichloroethane.....	1000 (454)
1,2-Dichloroethane.....	100 (45.4)
1,1-Dichloroethylene.....	100 (45.4)
1,2-Dichloroethylene.....	1000 (454)
Dichloroethyl ether.....	10 (4.54)
Dichloroisopropyl--ether.....	1000 (454)
Dichloromethane @.....	1000 (454)
Dichloromethoxy ethane.....	1000 (454)
Dichloromethyl ether.....	1 (0.454)
2,4-Dichlorophenol.....	100 (45.4)
2,6-Dichlorophenol.....	100 (45.4)
Dichlorophenylarsine.....	1 (0.454)
Dichloropropane.....	1000 (454)
1,1-Dichloropropane.....	.....
1,3-Dichloropropane.....	.....
1,2-Dichloropropane.....	1000 (454)
Dichloropropane - Dichloropropene (mixture).....	100 (45.4)
Dichloropropene.....	100 (45.4)
2,3-Dichloropropene.....	.....
1,3-Dichloropropene.....	100 (45.4)
2,2-Dichloropropionic acid.....	5000 (2270)
Dichlorvos.....	10 (4.54)
Dicofol.....	10 (4.54)
Dieldrin.....	1 (0.454)
1,2:3,4-Diepoxybutane.....	10 (4.54)
Diethanolamine.....	100 (45.4)
Diethylamine.....	1000 (454)
N,N-diethylaniline.....	1000 (454)
Diethylarsine.....	1 (0.454)
1,4-Diethylenedioxide.....	100 (45.4)
Diethylhexyl phthalate.....	100 (45.4)
N,N'-Diethylhydrazine.....	10 (4.54)
O,O-Diethyl S-methyl dithiophosphate.....	5000 (2270)
Diethyl-p-nitrophenyl phosphate.....	100 (45.4)

Diethyl phthalate.....	1000 (454)
O,O-Diethyl O-pyrazinyl phosphorothioate.....	100 (45.4)
Diethylstilbestrol.....	1 (0.454)
Diethyl sulfate.....	10 (4.54)
Dihydrosafrole.....	10 (4.54)
Diisopropyl fluorophosphate.....	100 (45.4)
1,4,5,8-Dimethanonaphthalene.....	1 (0.454)
1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro, (1alpha,4alpha,4abeta,5abeta,8beta,8abeta)-.....	
1,4,5,8-Dimethanonaphthalene,1,2,3,4,10,10-hexachloro- 1,4,4a,5,8,8a-hexahydro- , (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-.....	1 (0.454)
2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9- hexachloro-1a,2,2a,3,6,6a,7,7a-.....	1 (0.454)
octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta, 7beta,7aalpha)-.....	
2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9- hexachloro-1a,2,2a,3,6,6a,7,7a-.....	1 (0.454)
octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha, 7beta,7aalpha)-.....	
Dimethoate.....	10 (4.54)
3,3'-Dimethoxybenzidine.....	10 (4.54)
Dimethylamine.....	1000 (454)
p-Dimethylaminoazobenzene.....	10 (4.54)
N,N-dimethylaniline.....	100 (45.4)
7,12-Dimethylbenz[a]anthracene.....	1 (0.454)
3,3'-Dimethylbenzidine.....	10 (4.54)
alpha,alpha-Dimethylbenzylhydroperoxide.....	10 (4.54)
Dimethylcarbamoyl chloride.....	1 (0.454)
Dimethylformamide.....	100 (45.4)
1,1-Dimethylhydrazine.....	10 (4.54)
1,2-Dimethylhydrazine.....	1 (0.454)
Dimethylhydrazine, unsymmetrical @.....	10 (4.54)
alpha,alpha-Dimethylphenethylamine.....	5000 (2270)
12,4-Dimethylphenol.....	100 (45.4)
Dimethyl phthalate.....	5000 (2270)
Dimethyl sulfate.....	100 (45.4)
Dinitrobenzene (mixed).....	100 (45.4)
m-Dinitrobenzene.....	.....
o-Dinitrobenzene.....	.....
p-Dinitrobenzene.....	.....
4,6-Dinitro-o-cresol and salts.....	10 (4.54)
Dinitrogen tetroxide @.....	10 (4.54)
Dinitrophenol.....	10 (4.54)
2,5-Dinitrophenol.....	.....
2,4-Dinitrophenol.....	10 (4.54)
Dinitrotoluene.....	10 (4.54)
3,4-Dinitrotoluene.....	.....
2,4-Dinitrotoluene.....	10 (4.54)
2,6-Dinitrotoluene.....	100 (45.4)
Dinoseb.....	1000 (454)
Di-n-octyl phthalate.....	5000 (2270)
1,4-Dioxane.....	100 (45.4)
1,2-Diphenylhydrazine.....	10 (4.54)
Diphosphoramidate, octamethyl-.....	100 (45.4)
Diphosphoric acid, tetraethyl ester.....	10 (4.54)
Dipropylamine.....	5000 (2270)
Di-n-propylnitrosamine.....	10 (4.54)
Diquat.....	1000 (454)
Disulfoton.....	1 (0.454)
Dithiobiuret.....	100 (45.4)

Diuron.....	100 (45.4)
Dodecylbenzenesulfonic acid.....	1000 (454)
2,4-D, salts and esters.....	100 (45.4)
Endosulfan.....	1 (0.454)
alpha-Endosulfan.....	1 (0.454)
beta-Endosulfan.....	1 (0.454)
Endosulfan sulfate.....	1 (0.454)
Endothall.....	1000 (454)
Endrin.....	1 (0.454)
Endrin, & metabolites.....	1 (0.454)
Endrin aldehyde.....	1 (0.454)
Epichlorohydrin.....	100 (45.4)
Epinephrine.....	1000 (454)

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1,2-Epoxybutane.....	100 (45.4)
Ethanal.....	1000 (454)
Ethanamine, N-ethyl-N-nitroso-.....	1 (0.454)
Ethane, 1,2-dibromo-.....	1 (0.454)
Ethane, 1,1-dichloro-.....	1000 (454)
Ethane, 1,2-dichloro-.....	100 (45.4)
Ethane, hexachloro-.....	100 (45.4)
Ethane, 1,1'-[methylenebis(oxy)]bis(2-chloro-.....	1000 (454)
Ethane, 1,1'-oxybis-.....	100 (45.4)
Ethane, 1,1'-oxybis(2-chloro-.....	10 (4.54)
Ethane, pentachloro-.....	10 (4.54)
Ethane, 1,1,1,2-tetrachloro-.....	100 (45.4)
Ethane, 1,1,2,2-tetrachloro-.....	100 (45.4)
Ethane, 1,1,2-trichloro-.....	100 (45.4)
Ethane, 1,1,1-trichloro-.....	1000 (454)
1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2- thienyl-methyl)-.....	5000 (2270)
Ethanedinitrile.....	100 (45.4)
Ethanenitrile.....	5000 (2270)
Ethanethioamide.....	10 (4.54)
Ethanimidothioic acid, N-[[(methylamino)carbonyl] oxy]-, methyl ester.....	100 (45.4)
Ethanol, 2-ethoxy-.....	1000 (454)
Ethanol, 2,2'-(nitrosoimino)bis-.....	1 (0.454)
Ethanone, 1-phenyl-.....	5000 (2270)
Ethanoyl chloride.....	5000 (2270)
Ethene, chloro-.....	1 (0.454)
Ethene, 2-chloroethoxy-.....	1000 (454)
Ethene, 1,1-dichloro-.....	100 (45.4)
Ethene, 1,2-dichloro- (E).....	1000 (454)
Ethene, tetrachloro-.....	100 (45.4)
Ethene, trichloro-.....	100 (45.4)
Ethion.....	10 (4.54)
Ethyl acetate.....	5000 (2270)
Ethyl acrylate.....	1000 (454)
Ethylbenzene.....	1000 (454)
Ethyl carbamate (Urethan).....	100 (45.4)
Ethyl chloride @.....	100 (45.4)
Ethyl cyanide.....	10 (4.54)
Ethylene dibromide.....	1 (0.454)
Ethylene dichloride.....	100 (45.4)
Ethylene glycol.....	5000 (2270)
Ethylene glycol monoethyl ether.....	1000 (454)
Ethylene oxide.....	10 (4.54)

Ethylenebisdithiocarbamic acid.....	5000 (2270)
Ethylenebisdithiocarbamic acid, salts and esters.....	5000 (2270)
Ethylenediamine.....	5000 (2270)
Ethylenediamine tetraacetic acid (EDTA).....	5000 (2270)
Ethylenethiourea.....	10 (4.54)
Ethylenimine.....	1 (0.454)
Ethyl ether.....	100 (45.4)
Ethylidene dichloride.....	1000 (454)
Ethyl methacrylate.....	1000 (454)
Ethyl methanesulfonate.....	1 (0.454)
Ethyl methyl ketone @.....	5000 (2270)
Famphurdimethylester.....	1000 (454)
Ferric ammonium citrate.....	1000 (454)
Ferric ammonium oxalate.....	1000 (454)
Ferric chloride.....	1000 (454)
Ferric fluoride.....	100 (45.4)
Ferric nitrate.....	1000 (454)
Ferric sulfate.....	1000 (454)
Ferrous ammonium sulfate.....	1000 (454)
Ferrous chloride.....	100 (45.4)
Ferrous sulfate.....	1000 (454)
Fluoranthene.....	100 (45.4)
Fluorene.....	5000 (2270)
Fluorine.....	10 (4.54)
Fluoroacetamide.....	100 (45.4)
Fluoroacetic acid, sodium salt.....	10 (4.54)
Formaldehyde.....	100 (45.4)
Formic acid.....	5000 (2270)

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Fulminic acid, mercury(2+)salt.....	10 (4.54)
Fumaric acid.....	5000 (2270)
Furan.....	100 (45.4)
Furan, tetrahydro-.....	1000 (454)
2-Furancarboxaldehyde.....	5000 (2270)
2,5-Furandione.....	5000 (2270)
Furfural.....	5000 (2270)
Furfuran.....	100 (45.4)
Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-....	1 (0.454)
D-Glucose, 2-deoxy-2-[[methylnitrosoamino)- carbonyl]amino]-.....	1 (0.454)
Glycidylaldehyde.....	10 (4.54)
Guanidine, N-methyl-N'-nitro-N-nitroso-.....	10 (4.54)
Guthion.....	1 (0.454)
Heptachlor.....	1 (0.454)
Heptachlor epoxide.....	1 (0.454)
Hexachlorobenzene.....	10 (4.54)
Hexachlorobutadiene.....	1 (0.454)
Hexachlorocyclohexane (gamma isomer).....	1 (0.454)
Hexachlorocyclopentadiene.....	10 (4.54)
Hexachloroethane.....	100 (45.4)
1,2,3,4,10-10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8- endo,exo-dimethanonaphthalene.....	1 (0.454)
Hexachlorophene.....	100 (45.4)
Hexachloropropene.....	1000 (454)
Hexaethyl tetraphosphate.....	100 (45.4)
Hexamethylene-1,6-diisocyanate.....	100 (45.4)
Hexamethylphosphoramide.....	1 (0.454)
Hexane.....	5000 (2270)

Hydrazine.....	1 (0.454)
Hydrazine, 1,2-diethyl.....	10 (4.54)
Hydrazine, 1,1-dimethyl.....	10 (4.54)
Hydrazine, 1,2-dimethyl.....	1 (0.454)
Hydrazine, 1,2-diphenyl.....	10 (4.54)
Hydrazine, methyl.....	10 (4.54)
Hydrazinecarbothioamide.....	100 (45.4)
Hydrochloric acid.....	5000 (2270)
Hydrocyanic acid.....	10 (4.54)
Hydrofluoric acid.....	100 (45.4)
Hydrogen chloride.....	5000 (2270)
Hydrogen cyanide.....	10 (4.54)
Hydrogen fluoride.....	100 (45.4)
Hydrogen phosphide.....	100 (45.4)
Hydrogen sulfide.....	100 (45.4)
Hydrogen sulfide H2S.....	100 (45.4)
Hydroperoxide, 1-methyl-1-phenylethyl.....	10 (4.54)
Hydroquinone.....	100 (45.4)
2-Imidazolidinethione.....	10 (4.54)
Indeno(1,2,3-cd)pyrene.....	100 (45.4)
1,3-Isobenzofurandione.....	5000 (2270)
Isobutyl alcohol.....	5000 (2270)
Isodrin.....	1 (0.454)
Isophorone.....	5000 (2270)
Isoprene.....	100 (45.4)
Isopropanolamine dodecylbenzene sulfonate.....	1000 (454)
Isosafrole.....	100 (45.4)
3(2H)-Isoxazolone, 5-(aminomethyl)-.....	1000 (454)
Keponedecachloroc-tahydro-.....	1 (0.454)
Lasiocarpine.....	10 (4.54)
Lead cents.....	10 (4.54)
Lead acetate.....	10 (4.54)
Lead arsenate.....	1 (0.454)
Lead, bis(acetato-O)tetrahydroxytri.....	10 (4.54)
Lead chloride.....	10 (4.54)
Lead fluoborate.....	10 (4.54)
Lead fluoride.....	10 (4.54)
Lead iodide.....	10 (4.54)
Lead nitrate.....	10 (4.54)
Lead phosphate.....	10 (4.54)
Lead stearate.....	10 (4.54)
Lead subacetate.....	10 (4.54)
Lead sulfate.....	10 (4.54)

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Lead sulfide.....	10 (4.54)
Lead thiocyanate.....	10 (4.54)
Lindane.....	1 (0.454)
Lithium chromate.....	10 (4.54)
Malathion.....	100 (45.4)
Maleic acid.....	5000 (2270)
Maleic anhydride.....	5000 (2270)
Maleic hydrazide.....	5000 (2270)
Malononitrile.....	1000 (454)
MDI.....	5000 (2270)
Melphalan.....	1 (0.454)
Mercaptodimethur.....	10 (4.54)
Mercuric cyanide.....	1 (0.454)
Mercuric nitrate.....	10 (4.54)

Mercuric sulfate.....	10 (4.54)
Mercuric thiocyanate.....	10 (4.54)
Mercurous nitrate.....	10 (4.54)
Mercury.....	1 (0.454)
Mercury, (acetato-O)phenyl-.....	100 (45.4)
Mercury fulminate.....	10 (4.54)
Methacrylonitrile.....	1000 (454)
Methanamine, N-methyl-.....	1000 (454)
Methanamine, N-methyl-N-nitroso.....	10 (4.54)
Methane, bromo-.....	1000 (454)
Methane, chloro-.....	100 (45.4)
Methane, chloromethoxy-.....	1 (0.454)
Methane, dibromo-.....	1000 (454)
Methane, dichloro-.....	1000 (454)
Methane, dichlorodifluoro-.....	5000 (2270)
Methane, iodo-.....	100 (45.4)
Methane, isocyanato-.....	10 (4.54)
Methane, oxybis(chloro-.....	1 (0.454)
Methane, tetrachloro-.....	10 (4.54)
Methane, tetranitro-.....	10 (4.54)
Methane, tribromo-.....	100 (45.4)
Methane, trichloro-.....	10 (4.54)
Methane, trichlorofluoro-.....	5000 (2270)
Methanesulphenyl chloride, trichloro-.....	100 (45.4)
Methanesulfonic acid, ethyl ester.....	1 (0.454)
Methanethiol.....	100 (45.4)
6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10- hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide.....	1 (0.454)
Methanoic acid.....	5000 (2270)
4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- a,4,7,7a-tetrahydro-.....	1 (0.454)
4,7-Methano-1H-indene, 1,4,5,6,7,8,8-octachloro- 2,3,3a,4,7,7a-hexahydro-.....	1 (0.454)
Methanol.....	5000 (2270)
Methapyrilene.....	5000 (2270)
1,3,4-Metheno-2H-cyclobutal[cd]-pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-.....	1 (0.454)
Methomyl.....	100 (45.4)
Methoxychlor.....	1 (0.454)
Methyl alcohol.....	5000 (2270)
Methylamine @.....	100 (45.4)
Methyl bromide.....	1000 (454)
1-Methylbutadiene.....	100 (45.4)
Methyl chloride.....	100 (45.4)
Methyl chlorocarbonate.....	1000 (454)
Methyl chloroform.....	1000 (454)
Methyl chloroformate.....	1000 (454)
Methylchloromethyl ether @.....	1 (0.454)
3-Methylcholanthrene.....	10 (4.54)
4,4'-Methylenebis(2-chloroaniline).....	10 (4.54)
Methylene bromide.....	1000 (454)
Methylene chloride.....	1000 (454)
4,4'-Methylenedianiline.....	10 (4.54)
Methylene diphenyl diisocyanate.....	5000 (2270)
Methylene oxide.....	100 (45.4)
Methyl ethyl ketone (MEK).....	5000 (2270)
Methyl ethyl ketone peroxide.....	10 (4.54)
Methyl hydrazine.....	10 (4.54)
Methyl iodide.....	100 (45.4)
Methyl isobutyl ketone.....	5000 (2270)

Methyl isocyanate.....	10 (4.54)
2-Methyllactonitrile.....	10 (4.54)
Methyl mercaptan.....	100 (45.4)
Methyl methacrylate.....	1000 (454)
Methyl parathion.....	100 (45.4)
4-Methyl-2-pentanone.....	5000 (2270)
Methyl tert-butyl ether.....	1000 (454)
Methylthiouracil.....	10 (4.54)
Mevinphos.....	10 (4.54)
Mexacarbate.....	1000 (454)
Mitomycin C.....	10 (4.54)
MNNG.....	10 (4.54)
Monoethylamine.....	100 (45.4)
Monomethylamine.....	100 (45.4)
Muscimol.....	1000 (454)
Naled.....	10 (4.54)
5,12-Naphthacenedione, 8-acetyl-10-[3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl) oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-.....	10 (4.54)
Naphthalenamine, N,N-bis(2-chloroethyl)-.....	100 (45.4)
Naphthalene.....	100 (45.4)
Naphthalene, 2-chloro-.....	5000 (2270)
1,4-Naphthalenedione.....	5000 (2270)
2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'- dimethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(azo)]bis(5-amino-4-hydroxy)-tetrasodium salt.....	10 (4.54)
Naphthenic acid.....	100 (45.4)
1,4-Naphthoquinone.....	5000 (2270)
alpha-Naphthylamine.....	100 (45.4)
beta-Naphthylamine.....	1 (0.454)
1-Naphthylamine.....	100 (45.4)
2-Naphthylamine.....	1 (0.454)
alpha-Naphthylthiourea.....	100 (45.4)
Nickel cents.....	100 (45.4)
Nickel ammonium sulfate.....	100 (45.4)
Nickel carbonyl.....	10 (4.54)
Nickel carbonyl Ni(CO) ₄ , (T-4)-.....	10 (4.54)
Nickel chloride.....	100 (45.4)
Nickel cyanide.....	10 (4.54)
Nickel cyanide Ni(CN) ₂	10 (4.54)
Nickel hydroxide.....	10 (4.54)
Nickel nitrate.....	100 (45.4)
Nickel sulfate.....	100 (45.4)
Nicotine and salts.....	100 (45.4)
Nitric acid.....	1000 (454)
Nitric acid, thallium(1+) salt.....	100 (45.4)
Nitric oxide.....	10 (4.54)
p-Nitroaniline.....	5000 (2270)
Nitrobenzene.....	1000 (454)
4-nitrobiphenyl.....	10 (4.54)
Nitrogen dioxide.....	10 (4.54)
Nitrogen oxide NO.....	10 (4.54)
Nitrogen oxide NO ₂	10 (4.54)
Nitroglycerine.....	10 (4.54)
Nitrophenol (mixed).....	100 (45.4)
m-.....	.....
o-.....	.....
p-.....	.....
o-Nitrophenol.....	100 (45.4)

p-Nitrophenol.....	100 (45.4)
2-Nitrophenol.....	100 (45.4)
4-Nitrophenol.....	100 (45.4)
2-Nitropropane.....	10 (4.54)
N-Nitrosodi-n-butylamine.....	10 (4.54)
N-Nitrosodiethanolamine.....	1 (0.454)
N-Nitrosodiethylamine.....	1 (0.454)
N-Nitrosodimethylamine.....	10 (4.54)
N-Nitrosodiphenylamine.....	100 (45.4)
N-Nitroso-N-ethylurea.....	1 (0.454)
N-Nitroso-N-methylurea.....	1 (0.454)
N-Nitroso-N-methylurethane.....	1 (0.454)
N-Nitrosomethylvinylamine.....	10 (4.54)

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n-Nitrosomorpholine.....	1 (0.454)
N-Nitrosopiperidine.....	10 (4.54)
N-Nitrosopyrrolidine.....	1 (0.454)
Nitrotoluene.....	1000 (454)
m-Nitrotoluene.....	.....
o-Nitrotoluene.....	.....
p-Nitrotoluene.....	.....
5-Nitro-o-toluidine.....	100 (45.4)
Octamethylpyrophosphoramide.....	100 (45.4)
Osmium oxide OsO4 (T-4)-.....	1000 (454)
Osmium tetroxide.....	1000 (454)
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid.....	1000 (454)
1,2-Oxathiolane, 2,2-dioxide.....	10 (4.54)
2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide.....	10 (4.54)
Oxirane.....	10 (4.54)
Oxiranecarboxyaldehyde.....	10 (4.54)
Oxirane, (chloromethyl)-.....	100 (45.4)
Paraformaldehyde.....	1000 (454)
Paraldehyde.....	1000 (454)
Parathion.....	10 (4.54)
Pentachlorobenzene.....	10 (4.54)
Pentachloroethane.....	10 (4.54)
Pentachloronitrobenzene (PCNB).....	100 (45.4)
Pentachlorophenol.....	10 (4.54)
1,3-Pentadiene.....	100 (45.4)
Perchloroethylene.....	100 (45.4)
Perchloromethyl mercaptan @.....	100 (45.4)
Phenacetin.....	100 (45.4)
Phenanthrene.....	5000 (2270)
Phenol.....	1000 (454)
Phenol, 2-chloro-.....	100 (45.4)
Phenol, 4-chloro-3-methyl-.....	5000 (2270)
Phenol, 2-cyclohexyl-4,6-dinitro-.....	100 (45.4)
Phenol, 2,4-dichloro-.....	100 (45.4)
Phenol, 2,6-dichloro-.....	100 (45.4)
Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E).....	1 (0.454)
Phenol, 2,4-dimethyl-.....	100 (45.4)
Phenol, 2,4-dinitro-.....	10 (4.54)
Phenol, methyl-.....	100 (45.4)
Phenol, 2-methyl-4,6-dinitro-.....	10 (4.54)
Phenol, 2,2'-methylenebis[3,4,6-trichloro-.....	100 (45.4)
Phenol, 2-(1-methylpropyl)-4,6-dinitro.....	1000 (454)
Phenol, 4-nitro-.....	100 (45.4)

Phenol, pentachloro-.....	10 (4.54)
Phenol, 2,3,4,6-tetrachloro-.....	10 (4.54)
Phenol, 2,4,5-trichloro-.....	10 (4.54)
Phenol, 2,4,6-trichloro-.....	10 (4.54)
Phenol, 2,4,6-trinitro-, ammonium salt.....	10 (4.54)
L-Phenylalanine, 4-[bis(2-chloroethyl)aminol].....	1 (0.454)
p-Phenylenedimine.....	5000 (2270)
1,10-(1,2-Phenylene)pyrene.....	100 (45.4)
Phenyl mercaptan @.....	100 (45.4)
Phenylmercuric acetate.....	100 (45.4)
Phenylthiourea.....	100 (45.4)
Phorate.....	10 (4.54)
Phosgene.....	10 (4.54)
Phosphine.....	100 (45.4)
Phosphoric acid.....	5000 (2270)
Phosphoric acid, diethyl 4-nitrophenyl ester.....	100 (45.4)
Phosphoric acid, lead(2+) salt (2:3).....	10 (4.54)
Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester.....	1 (0.454)
Phosphorodithioic acid, O,O-diethyl S-(ethylthio), methyl ester.....	10 (4.54)
Phosphorodithioic acid, O,O-diethyl S-methyl ester.....	5000 (2270)
Phosphorodithioic acid, O,O-dimethyl S-[2 (methylamino)-2-oxoethyl] ester.....	10 (4.54)
Phosphorofluoridic acid, bis(1-methylethyl) ester.....	100 (45.4)
Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester.....	10 (4.54)
Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester.....	100 (45.4)
Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester.....	100 (45.4)
Phosphorothioic acid, O,[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester.....	1000 (454)
Phosphorus.....	1 (0.454)

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Phosphorus oxychloride.....	1000 (454)
Phosphorus pentasulfide.....	100 (45.4)
Phosphorus sulfide.....	100 (45.4)
Phosphorus trichloride.....	1000 (454)
Phthalic anhydride.....	5000 (2270)
2-Picoline.....	5000 (2270)
Piperidine, 1-nitroso-.....	10 (4.54)
Plumbane, tetraethyl-.....	10 (4.54)
POLYCHLORINATED BIPHENYLS (PCBs).....	1 (0.454)
Potassium arsenate.....	1 (0.454)
Potassium arsenite.....	1 (0.454)
Potassium bichromate.....	10 (4.54)
Potassium chromate.....	10 (4.54)
Potassium cyanide.....	10 (4.54)
Potassium cyanide K(CN).....	10 (4.54)
Potassium hydroxide.....	1000 (454)
Potassium permanganate.....	100 (45.4)
Potassium silver cyanide.....	1 (0.454)
Pronamide.....	5000 (2270)
Propanal, 2-methyl-2-(methylthio)-,O-[(methylamino)carbonyl]oxime.....	1 (0.454)
1-Propanamine.....	5000 (2270)
1-Propanamine, N-nitroso-N-propyl-.....	10 (4.54)
1-Propanamine, N-propyl-.....	5000 (2270)
Propane, 1,2-dibromo-3-chloro-.....	1 (0.454)

Propane, 1,2-dichloro-.....	1000 (454)
Propane, 2-nitro-.....	10 (4.54)
Propane, 2,2'-oxybis [2-chloro-.....	1000 (454)
1,3-Propane sultone.....	10 (4.54)
Propanedinitrile.....	1000 (454)
Propanenitrile.....	10 (4.54)
Propanenitrile, 3-chloro-.....	1000 (454)
Propanenitrile, 2-hydroxy-2-methyl-.....	10 (4.54)
1,2,3-Propanetriol, trinitrate-.....	10 (4.54)
1-Propanol, 2,3-dibromo-, phosphate (3:1).....	10 (4.54)
1-Propanol, 2-methyl-.....	5000 (2270)
2-Propanone.....	5000 (2270)
2-Propanone, 1-bromo-.....	1000 (454)
Propargite.....	10 (4.54)
Propargyl alcohol.....	1000 (454)
2-Propenal.....	1 (0.454)
2-Propenamide.....	5000 (2270)
1-Propene, 1,3-dichloro-.....	100 (45.4)
1-Propene, 1,1,2,3,3,3-hexachloro-.....	1000 (454)
2-Propenenitrile.....	100 (45.4)
2-Propenenitrile, 2-methyl-.....	1000 (454)
2-Propenoic acid.....	5000 (2270)
2-Propenoic acid, ethyl ester.....	1000 (454)
2-Propenoic acid, 2-methyl-, ethyl ester.....	1000 (454)
2-Propenoic acid, 2-methyl-, methyl ester.....	1000 (454)
2-Propen-1-ol.....	100 (45.4)
beta-Propioaldehyde.....	1000 (454)
Propionic acid.....	5000 (2270)
Propionic acid, 2-(2,4,5-trichlorophenoxy)-.....	100 (45.4)
Propionic anhydride.....	5000 (2270)
Propoxur (baygon).....	100 (45.4)
n-Propylamine.....	5000 (2270)
Propylene dichloride.....	1000 (454)
Propylene oxide.....	100 (45.4)
1,2-Propylenimine.....	1 (0.454)
2-Propyn-1-ol.....	1000 (454)
Pyrene.....	5000 (2270)
Pyrethrins.....	1 (0.454)
3,6-Pyridazinedione, 1,2-dihydro-.....	5000 (2270)
4-Pyridinamine.....	1000 (454)
Pyridine.....	1000 (454)
Pyridine, 2-methyl-.....	5000 (2270)
Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S).....	100 (45.4)
2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	10 (4.54)
4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-.....	10 (4.54)
Pyrrolidine, 1-nitroso-.....	1 (0.454)

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Quinoline.....	5000 (2270)
RADIONUCLIDES.....	See table 2
Reserpine.....	5000 (2270)
Resorcinol.....	5000 (2270)
Saccharin and salts.....	100 (45.4)
Safrole.....	100 (45.4)
Selenious acid.....	10 (4.54)
Selenious acid, dithallium(1+) salt.....	1000 (454)
Selenium cents.....	100 (45.4)
Selenium dioxide.....	10 (4.54)

Selenium oxide.....	10 (4.54)
Selenium sulfide.....	10 (4.54)
Selenium sulfide SeS2.....	10 (4.54)
Selenourea.....	1000 (454)
L-Serine, diazoacetate (ester).....	1 (0.454)
Silver cents.....	1000 (454)
Silver cyanide.....	1 (0.454)
Silver cyanide Ag(CN).....	1 (0.454)
Silver nitrate.....	1 (0.454)
Silvex(2,4,5-TP).....	100 (45.4)
Sodium.....	10 (4.54)
Sodium arsenate.....	1 (0.454)
Sodium arsenite.....	1 (0.454)
Sodium azide.....	1000 (454)
Sodium bichromate.....	10 (4.54)
Sodium bifluoride.....	100 (45.4)
Sodium bisulfite.....	5000 (2270)
Sodium chromate.....	10 (4.54)
Sodium cyanide.....	10 (4.54)
Sodium cyanide Na(CN).....	10 (4.54)
Sodium dodecylbenzene sulfonate.....	1000 (454)
Sodium fluoride.....	1000 (454)
Sodium hydrosulfide.....	5000 (2270)
Sodium hydroxide.....	1000 (454)
Sodium hypochlorite.....	100 (45.4)
Sodium methylate.....	1000 (454)
Sodium nitrite.....	100 (45.4)
Sodium phosphate, dibasic.....	5000 (2270)
Sodium phosphate, tribasic.....	5000 (2270)
Sodium selenite.....	100 (45.4)
Streptozotocin.....	1 (0.454)
Strontium chromate.....	10 (4.54)
Strychnidin-10-one.....	10 (4.54)
Strychnidin-10-one, 2,3-dimethoxy-.....	100 (45.4)
Strychnine and salts.....	10 (4.54)
Styrene.....	1000 (454)
Styrene oxide.....	100 (45.4)
Sulfur chloride @.....	1000 (454)
Sulfur monochloride.....	1000 (454)
Sulfur phosphide.....	100 (45.4)
Sulfuric acid.....	1000 (454)
Sulfuric acid, dimethyl ester.....	100 (45.4)
Sulfuric acid, dithallium(I+) salt.....	100 (45.4)
2,4,5-T.....	1000 (454)
2,4,5-T acid.....	1000 (454)
2,4,5-T amines.....	5000 (2270)
2,4,5-T esters.....	1000 (454)
2,4,5-T salts.....	1000 (454)
TDE.....	1 (0.454)
1,2,4,5-Tetrachlorobenzene.....	5000 (2270)
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD).....	1 (0.454)
1,1,1,2-Tetrachloroethane.....	100 (45.4)
1,1,2,2-Tetrachloroethane.....	100 (45.4)
Tetrachloroethane @.....	100 (45.4)
Tetrachloroethene.....	100 (45.4)
Tetrachloroethylene.....	100 (45.4)
2,3,4,6-Tetrachlorophenol.....	10 (4.54)
Tetraethyl lead.....	10 (4.54)
Tetraethyl pyrophosphate.....	10 (4.54)
Tetraethyldithiopyrophosphate.....	100 (45.4)

Tetrahydrofuran.....	1000 (454)
Tetranitromethane.....	10 (4.54)
Tetraphosphoric acid, hexaethyl ester.....	100 (45.4)
Thallic oxide.....	100 (45.4)
Thallium cents.....	1000 (454)
Thallium(I) acetate.....	100 (45.4)
Thallium(I) carbonate.....	100 (45.4)
Thallium(I) chloride.....	100 (45.4)
Thallium chloride TlCl.....	100 (45.4)
Thallium(I) nitrate.....	100 (45.4)
Thallium oxide Tl2O3.....	100 (45.4)
Thallium selenite.....	1000 (454)
Thallium(I) sulfate.....	100 (45.4)
Thioacetamide.....	10 (4.54)
Thiodiphosphoric acid, tetraethyl ester.....	100 (45.4)
Thiofanox.....	100 (45.4)
Thioimidodicarbonic diamide [(H2N)C(S)]2NH.....	100 (45.4)
Thiomethanol.....	100 (45.4)
Thioperoxydicarbonic diamide [(H2N)C(S)]2S2, tetramethyl-	10 (4.54)
Thiophenol.....	100 (45.4)
Thiosemicarbazide.....	100 (45.4)
Thiourea.....	10 (4.54)
Thiourea, (2-chlorophenyl)-.....	100 (45.4)
Thiourea, 1-naphthalenyl-.....	100 (45.4)
Thiourea, phenyl-.....	100 (45.4)
Thiram.....	10 (4.54)
Titanium tetrachloride.....	1000 (454)
Toluene.....	1000 (454)
Toluenediamine.....	10 (4.54)
Toluene diisocyanate.....	100 (45.4)
o-Toluidine.....	100 (45.4)
p-Toluidine.....	100 (45.4)
o-Toluidine hydrochloride.....	100 (45.4)
Toxaphene.....	1 (0.454)
2,4,5-TP acid.....	100 (45.4)
2,4,5-TP acid esters.....	100 (45.4)
1H-1,2,4-Triazol-3-amine.....	10 (4.54)
Trichlorfon.....	100 (45.4)
1,2,4-Trichlorobenzene.....	100 (45.4)
1,1,1-Trichloroethane.....	1000 (454)
1,1,2-Trichloroethane.....	100 (45.4)
Trichloroethene.....	100 (45.4)
Trichloroethylene.....	100 (45.4)
Trichloromethanesulfonyl chloride.....	100 (45.4)
Trichloromonofluoromethane.....	5000 (2270)
Trichlorophenol.....	10 (4.54)
2,3,4-Trichlorophenol.....	.....
2,3,5-Trichlorophenol.....	.....
2,3,6-Trichlorophenol.....	.....
2,4,5-Trichlorophenol.....	.....
2,4,6-Trichlorophenol.....	.....
3,4,5-Trichlorophenol.....	.....
2,4,5-Trichlorophenol.....	10 (4.54)
2,4,6-Trichlorophenol.....	10 (4.54)
Triethanolamine dodecylbenzene sulfonate.....	1000 (454)
Triethylamine.....	5000 (2270)
Trifluralin.....	10 (4.54)
Trimethylamine.....	100 (45.4)

2,2,4-Trimethylpentane.....	1000 (454)
1,3,5-Trinitrobenzene.....	10 (4.54)
1,3,5-Trioxane, 2,4,6-trimethyl-.....	1000 (454)
Tris(2,3-dibromopropyl) phosphate.....	10 (4.54)
Trypan blue.....	10 (4.54)
Uracil mustard.....	10 (4.54)
Uranyl acetate.....	100 (45.4)
Uranyl nitrate.....	100 (45.4)
Urea, N-ethyl-N-nitroso-.....	1 (0.454)
Urea, N-methyl-N-nitroso-.....	1 (0.454)
Vanadic acid, ammonium salt.....	1000 (454)
Vanadium oxide V205.....	1000 (454)

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Vanadium pentoxide.....	1000 (454)
Vanadyl sulfate.....	1000 (454)
Vinyl acetate.....	5000 (2270)
Vinyl acetate monomer.....	5000 (2270)
Vinylamine, N-methyl-N-nitroso-.....	10 (4.54)
Vinyl bromide.....	100 (45.4)
Vinyl chloride.....	1 (0.454)
Vinylidene chloride.....	100 (45.4)
Warfarin, & salts, when present at concentrations greater than 0.3%.....	100 (45.4)
Xylene.....	100 (45.4)
m-Xylene.....	1000 (454)
o-Xylene.....	1000 (454)
p-Xylene.....	100 (45.4)
Xylene (mixed).....	100 (45.4)
Xylenes (isomers and mixture).....	100 (45.4)
Xylenol.....	1000 (454)
Yohimban-16-carboxylic acid,11,17-dimethoxy-18-[(3,4,5- trimethoxybenzoyl)oxy]-,.....	5000 (2270)
methyl ester (3beta,16beta,17alpha,18beta,20alpha)-.....	
Zinc cents.....	1000 (454)
Zinc acetate.....	1000 (454)
Zinc ammonium chloride.....	1000 (454)
Zinc borate.....	1000 (454)
Zinc bromide.....	1000 (454)
Zinc carbonate.....	1000 (454)
Zinc chloride.....	1000 (454)
Zinc cyanide.....	10 (4.54)
Zinc cyanide Zn(CN)2.....	10 (4.54)
Zinc fluoride.....	1000 (454)
Zinc formate.....	1000 (454)
Zinc hydrosulfite.....	1000 (454)
Zinc nitrate.....	1000 (454)
Zinc phenolsulfonate.....	5000 (2270)
Zinc phosphide.....	100 (45.4)
Zinc phosphide Zn3P2, when present at concentrations greater than 10%.....	100 (45.4)
Zinc silicofluoride.....	5000 (2270)
Zinc sulfate.....	1000 (454)
Zirconium nitrate.....	5000 (2270)
Zirconium potassium fluoride.....	1000 (454)
Zirconium sulfate.....	5000 (2270)
Zirconium tetrachloride.....	5000 (2270)
D001 Unlisted Hazardous Wastes Characteristic of Ignitability.....	100 (45.4)

D002 Unlisted Hazardous Wastes Characteristic of Corrosivity.....	100 (45.4)
D003 Unlisted Hazardous Wastes Characteristic of Reactivity.....	100 (45.4)
D004-D043 Unlisted Hazardous Wastes Characteristic of Toxicity.....	.....
D004 Arsenic.....	1 (0.454)
D005 Barium.....	1000 (454)
D006 Cadmium.....	10 (4.54)
D007 Chromium.....	10 (4.54)
D008 Lead.....	10 (4.54)
D009 Mercury.....	1 (0.454)
D010 Selenium.....	10 (4.54)
D011 Silver.....	1 (0.454)
D012 Endrin.....	1 (0.454)
D013 Lindane.....	1 (0.454)
D014 Methoxychlor.....	1 (0.454)
D015 Toxaphene.....	1 (0.454)
D016 2,4-D.....	100 (45.4)
D017 2,4,5-TP.....	100 (45.4)
D018 Benzene.....	10 (4.54)
D019 Carbon tetrachloride.....	10 (4.54)
D020 Chlordane.....	1 (0.454)
D021 Chlorobenzene.....	100 (45.4)
D022 Chloroform.....	10 (4.54)
D023 o-Cresol.....	100 (45.4)
D024 m-Cresol.....	100 (45.4)
D025 p-Cresol.....	100 (45.4)
D026 Cresol.....	100 (45.4)
D027 1,4-Dichlorobenzene.....	100 (45.4)
D028 1,2-Dichloroethane.....	100 (45.4)
D029 1,1-Dichloroethylene.....	100 (45.4)

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D030 2,4-Dinitrotoluene.....	10 (4.54)
D031 Heptachlor (and hydroxide).....	1 (0.454)
D032 Hexachlorobenzene.....	10 (4.54)
D033 Hexachlorobutadiene.....	1 (0.454)
D034 Hexachloroethane.....	100 (45.4)
D035 Methyl ethyl ketone.....	5000 (2270)
D036 Nitrobenzene.....	1000 (454)
D037 Pentachlorophenol.....	10 (4.54)
D038 Pyridine.....	1000 (454)
D039 Tetrachloroethylene.....	100 (45.4)
D040 Trichloroethylene.....	100 (45.4)
D041 2,4,5-Trichlorophenol.....	10 (4.54)
D042 2,4,6-Trichlorophenol.....	10 (4.54)
D043 Vinyl chloride.....	1 (0.454)
F001.....	10 (4.54)

The following spent halogenated solvents used in degreasing; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the below listed halogenated solvents or those solvents listed in F002, F004 and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.....

(a) Tetrachloroethylene.....	100 (45.4)
(b) Trichloroethylene.....	100 (45.4)

(c) Methylene chloride.....	1000 (454)
(d) 1,1,1-Trichloroethane.....	1000 (454)
(e) Carbon tetrachloride.....	10 (4.54)
(f) Chlorinated fluorocarbons.....	5000 (2270)
F002.....	10 (4.54)
The following spent halogenated solvents; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the below listed halogenated solvents or those listed in F001, F004, F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.....	
(a) Tetrachloroethylene.....	100 (45.4)
(b) Methylene chloride.....	1000 (454)
(c) Trichloroethylene.....	100 (45.4)
(d) 1,1,1-Trichloroethane.....	1000 (454)
(e) Chlorobenzene.....	100 (45.4)
(f) 1,1,2-Trichloro-1,2,2-trifluoroethane.....	5000 (2270)
(g) o-Dichlorobenzene.....	100 (45.4)
(h) Trichlorofluoromethane.....	5000 (2270)
(i) 1,1,2 Trichloroethane.....	100 (45.4)
F003.....	100 (45.4)
The following spent non-halogenated solvents and solvents:.....	
(a) Xylene.....	1000 (454)
(b) Acetone.....	5000 (2270)
(c) Ethyl acetate.....	5000 (2270)
(d) Ethylbenzene.....	1000 (454)
(e) Ethyl ether.....	100 (45.4)
(f) Methyl isobutyl ketone.....	5000 (2270)
(g) n-Butyl alcohol.....	5000 (2270)
(h) Cyclohexanone.....	5000 (2270)
(i) Methanol.....	5000 (2270)
F004.....	100 (45.4)
The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents:.....	
(a) Cresols/Cresylic acid.....	1000 (454)
(b) Nitrobenzene.....	100 (45.4)
F005.....	100 (45.4)
The following spent non-halogenated solvents and the still bottoms from the recovery of these solvents:.....	
(a) Toluene.....	1000 (454)
(b) Methyl ethyl ketone.....	5000 (2270)
(c) Carbon disulfide.....	100 (45.4)
(d) Isobutanol.....	5000 (2270)
(e) Pyridine.....	1000 (454)
F006.....	10 (4.54)

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Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum, (2) tin plating on carbon steel, (3) zinc plating (segregated basis) on carbon steel, (4) aluminum or zinc-aluminum plating on carbon steel, (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel, and (6) chemical etching and milling of aluminum.....	
F007.....	10 (4.54)
Spent cyanide plating bath solutions from electroplating operations.....	
F008.....	10 (4.54)

Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.....	
F009.....	10 (4.54)
Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.....	
F010.....	10 (4.54)
Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.....	
F011.....	10 (4.54)
Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations (except for precious metals heat treating spent cyanide solutions from salt bath pot cleaning).....	
F012.....	10 (4.54)
Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.....	
F019.....	10 (4.54)
Wastewater treatment sludges from the chemical conversion coating of aluminum--except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	
F020.....	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.).....	
F021.....	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.....	
F022.....	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.....	
F023.....	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.).....	

F024.....	1 (0.454)
Wastes, including but not limited to distillation residues, heavy ends, tars, and reactor cleanout wastes, from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (This listing does not include light ends, spent filters and filter aids, spent desiccants(sic), wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in 40 CFR 261.32.).....	
F025.....	1 (0.454)
Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.....	
F026.....	1 (0.454)
Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.....	
F027.....	1 (0.454)
Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.).....	
F028.....	1 (0.454)
Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.....	
F032.....	1 (0.454)
F034.....	1 (0.454)
F035.....	1 (0.454)
F037.....	1 (0.454)
F038.....	1 (0.454)
F039.....	1 (0.454)
Multi source leachate.....	
K001.....	
Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.....	
K002.....	10 (4.54)
Wastewater treatment sludge from the production of chrome yellow and orange pigments.....	
K003.....	
Wastewater treatment sludge from the production of molybdate orange pigments.....	
K004.....	10 (4.54)
Wastewater treatment sludge from the production of zinc yellow pigments.....	
K005.....	
Wastewater treatment sludge from the production of chrome green pigments.....	
K006.....	10 (4.54)
Wastewater treatment sludge from the production of	

chrome oxide green pigments (anhydrous and hydrated)...	
K007.....	
Wastewater treatment sludge from the production of iron blue pigments.....	
K008.....	10 (4.54)
Oven residue from the production of chrome oxide green pigments.....	
K009.....	10 (4.54)
Distillation bottoms from the production of acetaldehyde from ethylene.....	
K010.....	10 (4.54)
Distillation side cuts from the production of acetaldehyde from ethylene.....	
K011.....	10 (4.54)
Bottom stream from the wastewater stripper in the production of acrylonitrile.....	
K013.....	10 (4.54)
Bottom stream from the acetonitrile column in the production of acrylonitrile.....	
K014.....	5000 (2270)
Bottoms from the acetonitrile purification column in the production of acrylonitrile.....	
K015.....	10 (4.54)
Still bottoms from the distillation of benzyl chloride..	
K016.....	1 (0.454)
Heavy ends or distillation residues from the production of carbon tetrachloride.....	
K017.....	10 (4.54)
Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.....	
K018.....	1 (0.454)
Heavy ends from the fractionation column in ethyl chloride production.....	
K019.....	1 (0.454)
Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.....	
K020.....	1 (0.454)
Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.....	
K021.....	10 (4.54)
Aqueous spent antimony catalyst waste from fluoromethanes production.....	
K022.....	1 (0.454)
Distillation bottom tars from the production of phenol/acetone from cumene.....	
K023.....	5000 (2270)
Distillation light ends from the production of phthalic anhydride from naphthalene.....	
K024.....	5000 (2270)
Distillation bottoms from the production of phthalic anhydride from naphthalene.....	
K025.....	10 (4.54)
Distillation bottoms from the production of nitrobenzene by the nitration of benzene.....	
K026.....	1000 (454)
Stripping still tails from the production of methyl ethyl pyridines.....	
K027.....	10 (4.54)
Centrifuge and distillation residues from toluene diisocyanate production.....	

K028.....	1 (0.454)
Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.....	
K029.....	1 (0.454)
Waste from the product steam stripper in the production of 1,1,1-trichloroethane.....	
K030.....	1 (0.454)
Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene..	
K031.....	1 (0.454)
By-product salts generated in the production of MSMA and cacodylic acid.....	
K032.....	10 (4.54)
Wastewater treatment sludge from the production of chlordanes.....	
K033.....	10 (4.54)
Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordanes.....	
K034.....	10 (4.54)
Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordanes.....	
K035.....	1 (0.454)
Wastewater treatment sludges generated in the production of creosote.....	
K036.....	1 (0.454)
Still bottoms from toluene reclamation distillation in the production of disulfoton.....	
K037.....	1 (0.454)
Wastewater treatment sludges from the production of disulfoton.....	
K038.....	10 (4.54)
Wastewater from the washing and stripping of phorate production.....	

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K039.....	10 (4.54)
Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.....	
K040.....	10 (4.54)
Wastewater treatment sludge from the production of phorate.....	
K041.....	1 (0.454)
Wastewater treatment sludge from the production of toxaphene.....	
K042.....	10 (4.54)
Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.....	
K043.....	10 (4.54)
2,6-dichlorophenol waste from the production of 2,4-D... K044.....	10 (4.54)
Wastewater treatment sludges from the manufacturing and processing of explosives.....	
K045.....	10 (4.54)
Spent carbon from the treatment of wastewater containing explosives.....	
K046.....	10 (4.54)

Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.....	
K047.....	10 (4.54)
Pink/red water from TNT operations.....	
K048.....	10 (4.54)
Dissolved air flotation (DAF) float from the petroleum refining industry.....	
K049.....	10 (4.54)
Slop oil emulsion solids from the petroleum refining industry.....	
K050.....	10 (4.54)
Heat exchanger bundle cleaning sludge from the petroleum refining industry.....	
K051.....	10 (4.54)
API separator sludge from the petroleum refining industry.....	
K052.....	10 (4.54)
Tank bottoms (leaded) from the petroleum refining industry.....	
K060.....	1 (0.454)
Ammonia still lime sludge from coking operations.....	
K061.....	10 (4.54)
Emission control dust/sludge from the primary production of steel in electric furnaces.....	
K062.....	10 (4.54)
Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry.....	
K064.....	10 (4.54)
Acid plant blowdown slurry/sludge resulting from thickening of blowdown slurry from primary copper production.....	
K065.....	10 (4.54)
Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.....	
K066.....	10 (4.54)
Sludge from treatment of process wastewater and /or acid plant blowdown from primary zinc production.....	
K069.....	10 (4.54)
Emission control dust/sludge from secondary lead smelting.....	
K071.....	1 (0.454)
Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.....	
K073.....	10 (4.54)
Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.....	

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K083.....	100 (45.4)
Distillation bottoms from aniline extraction.....	
K084.....	1 (0.454)
Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.....	
K085.....	10 (4.54)

Distillation or fractionation column bottoms from the production of chlorobenzenes.....	
K086.....	10 (4.54)
Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.....	
K087.....	100 (45.4)
Decanter tank tar sludge from coking operations.....	
K088.....	10 (4.54)
Spent potliners from primary aluminum reduction.....	
K090.....	10 (4.54)
Emission control dust or sludge from ferrochromiumsilicon production.....	
K091.....	10 (4.54)
Emission control dust or sludge from ferrochromium production.....	
K093.....	5000 (2270)
Distillation light ends from the production of phthalic anhydride from ortho-xylene.....	
K094.....	5000 (2270)
Distillation bottoms from the production of phthalic anhydride from ortho-xylene.....	
K095.....	100 (45.4)
Distillation bottoms from the production of 1,1,1-trichloroethane.....	
K096.....	100 (45.4)
Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.....	
K097.....	1 (0.454)
Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.....	
K098.....	1 (0.454)
Untreated process wastewater from the production of toxaphene.....	
K099.....	10 (4.54)
Untreated wastewater from the production of 2,4-D.....	
K100.....	10 (4.54)
Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.....	
K101.....	1 (0.454)
Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.....	
K102.....	1 (0.454)
Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.....	
K103.....	100 (45.4)
Process residues from aniline extraction from the production of aniline.....	
K104.....	10 (4.54)
Combined wastewater streams generated from nitrobenzene/aniline chlorobenzenes.....	
K105.....	10 (4.54)
Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.....	
K106.....	1 (0.454)

Wastewater treatment sludge from the mercury cell process in chlorine production.....	
K107.....	10 (4.54)
Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazines.....	

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K108.....	10 (4.54)
Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.....	
K109.....	10 (4.54)
Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.....	
K110.....	10 (4.54)
Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazines (UDMH) from carboxylic acid hydrazides.....	
K111.....	10 (4.54)
Product washwaters from the production of dinitrotoluene via nitration of toluene.....	
K112.....	10 (4.54)
Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.....	
K113.....	10 (4.54)
Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.....	
K114.....	10 (4.54)
Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.....	
K115.....	10 (4.54)
Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.....	
K116.....	10 (4.54)
Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.....	
K117.....	1 (0.454)
Wastewater from the reaction vent gas scrubber in the production of ethylene bromide via bromination of ethene.....	
K118.....	1 (0.454)
Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide.....	
K123.....	10 (4.54)
Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.....	
K124.....	10 (4.54)
Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.....	
K125.....	10 (4.54)
Filtration, evaporation, and centrifugation solids from	

the production of ethylenebisdithiocarbamic acid and its salts.....	
K126.....	10 (4.54)
Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.....	
K131.....	100 (45.4)
Waste water from the reactor and spent sulfuric acid from the acid dryer in the production of methyl bromide	
K132.....	1000 (454)
Spent absorbent and wastewater solids from the production of methyl bromide.....	
K136.....	1 (0.454)
Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.....	
K141.....	1 (0.454)
K142.....	1 (0.454)
K143.....	1 (0.454)
K144.....	1 (0.454)
K145.....	1 (0.454)
K147.....	1 (0.454)
K148.....	1 (0.454)
K149.....	10 (4.54)
K150.....	10 (4.54)
K151.....	10 (4.54)

Footnotes:

cents The RQ for these hazardous substances is limited to those pieces of the metal having a diameter smaller than 100 micrometers (0.004 inches)

cents cents The RQ for asbestos is limited to friable forms only

@ Indicates that the name was added by RSPA because (1) the name is a synonym for a specific hazardous substance and (2) the name appears in the Hazardous Materials Table as a proper shipping name.

List of Hazardous Substances and Reportable Quantities

Table 2 to Appendix A--Radionuclides

(1)--Radionuclide	(2)--Atomic Number	(3)--Reportable Quantity (RQ) Ci (TBq)
Actinium-224	89	100 (3.7)
Actinium-225	89	1 (.037)
Actinium-226	89	10 (.37)
Actinium-227	89	0.001 (.000037)
Actinium-228	89	10 (.37)
Aluminum-26	13	10 (.37)
Americium-237	95	1000 (37)
Americium-238	95	100 (3.7)
Americium-239	95	100 (3.7)
Americium-240	95	10 (.37)
Americium-241	95	0.01 (.00037)
Americium-242	95	100 (3.7)
Americium-242m	95	0.01 (.00037)
Americium-243	95	0.01 (.00037)
Americium-244	95	10 (.37)

Americium-244m	95	1000 (37)
Americium-245	95	1000 (37)
Americium-246	95	1000 (37)
Americium-246m	95	1000 (37)
Antimony-115	51	1000 (37)
Antimony-116	51	1000 (37)
Antimony-116m	51	100 (3.7)
Antimony-117	51	1000 (37)
Antimony-118m	51	10 (.37)
Antimony-119	51	1000 (37)
Antimony-120 (16 min)	51	1000 (37)
Antimony-120 (5.76 day)	51	10 (.37)
Antimony-122	51	10 (.37)
Antimony-124	51	10 (.37)
Antimony-124m	51	1000 (37)
Antimony-125	51	10 (.37)
Antimony-126	51	10 (.37)
Antimony-126m	51	1000 (37)
Antimony-127	51	10 (.37)
Antimony-128 (10.4 min)	51	1000 (37)
Antimony-128 (9.01 hr)	51	10 (.37)
Antimony-129	51	100 (3.7)
Antimony-130	51	100 (3.7)
Antimony-131	51	1000 (37)
Argon-39	18	1000 (37)
Argon-41	18	10 (.37)
Arsenic-69	33	1000 (37)
Arsenic-70	33	100 (3.7)
Arsenic-71	33	100 (3.7)
Arsenic-72	33	10 (.37)
Arsenic-73	33	100 (3.7)
Arsenic-74	33	10 (.37)
Arsenic-76	33	100 (3.7)
Arsenic-77	33	1000 (37)
Arsenic-78	33	100 (3.7)
Astatine-207	85	100 (3.7)
Astatine-211	85	100 (3.7)
Barium-126	56	1000 (37)
Barium-128	56	10 (.37)
Barium-131	56	10 (.37)
Barium-131m	56	1000 (37)
Barium-133	56	10 (.37)
Barium-133m	56	100 (3.7)

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Barium-135m	56	1000 (37)
Barium-139	56	1000 (37)
Barium-140	56	10 (.37)
Barium-141	56	1000 (37)
Barium-142	56	1000 (37)
Berkelium-245	97	100 (3.7)
Berkelium-246	97	10 (.37)
Berkelium-247	97	0.01 (.00037)
Berkelium-249	97	1 (.037)
Berkelium-250	97	100 (3.7)
Beryllium-10	4	1 (.037)
Beryllium-7	4	100 (3.7)
Bismuth-200	83	100 (3.7)
Bismuth-201	83	100 (3.7)

Bismuth-202	83	1000 (.37)
Bismuth-203	83	10 (.37)
Bismuth-205	83	10 (.37)
Bismuth-206	83	10 (.37)
Bismuth-207	83	10 (.37)
Bismuth-210	83	10 (.37)
Bismuth-210m	83	0.1 (.0037)
Bismuth-212	83	100 (3.7)
Bismuth-213	83	100 (3.7)
Bismuth-214	83	100 (3.7)
Bromine-74	35	100 (3.7)
Bromine-74m	35	100 (3.7)
Bromine-75	35	100 (3.7)
Bromine-76	35	10 (.37)
Bromine-77	35	100 (3.7)
Bromine-80	35	1000 (37)
Bromine-80m	35	1000 (37)
Bromine-82	35	10 (.37)
Bromine-83	35	1000 (37)
Bromine-84	35	100 (3.7)
Cadmium-104	48	1000 (37)
Cadmium-107	48	1000 (37)
Cadmium-109	48	1 (.037)
Cadmium-113	48	0.1 (.0037)
Cadmium-113m	48	0.1 (.0037)
Cadmium-115	48	100 (3.7)
Cadmium-115m	48	10 (.37)
Cadmium-117	48	100 (3.7)
Cadmium-117m	48	10 (.37)
Calcium-41	20	10 (.37)
Calcium-45	20	10 (.37)
Calcium-47	20	10 (.37)
Californium-244	98	1000 (37)
Californium-246	98	10 (.37)
Californium-248	98	0.1 (.0037)
Californium-249	98	0.01 (.00037)
Californium-250	98	0.01 (.00037)
Californium-251	98	0.01 (.00037)
Californium-252	98	0.1 (.0037)
Californium-253	98	10 (.37)
Californium-254	98	0.1 (.0037)
Carbon-11	6	1000 (37)
Carbon-14	6	10 (.37)
Cerium-134	58	10 (.37)
Cerium-135	58	10 (.37)
Cerium-137	58	1000 (37)
Cerium-137m	58	100 (3.7)
Cerium-139	58	100 (3.7)
Cerium-141	58	10 (.37)
Cerium-143	58	100 (3.7)
Cerium-144	58	1 (.037)
Cesium-125	55	1000 (37)
Cesium-127	55	100 (3.7)
Cesium-129	55	100 (3.7)
Cesium-130	55	1000 (37)
Cesium-131	55	1000 (37)
Cesium-132	55	10 (.37)
Cesium-134	55	1 (.037)
Cesium-134m	55	1000 (37)
Cesium-135	55	10 (.37)

Cesium-135m	55	100 (3.7)
Cesium-136	55	10 (.37)
Cesium-137	55	1 (.037)
Cesium-138	55	100 (3.7)
Chlorine-36	17	10 (.37)
Chlorine-38	17	100 (3.7)
Chlorine-39	17	100 (3.7)
Chromium-48	24	100 (3.7)
Chromium-49	24	1000 (37)
Chromium-51	24	1000 (37)
Cobalt-55	27	10 (.37)
Cobalt-56	27	10 (.37)
Cobalt-57	27	100 (3.7)
Cobalt-58	27	10 (.37)
Cobalt-58m	27	1000 (37)
Cobalt-60	27	10 (.37)
Cobalt-60m	27	1000 (37)
Cobalt-61	27	1000 (37)
Cobalt-62m	27	1000 (37)
Copper-60	29	100 (3.7)
Copper-61	29	100 (3.7)
Copper-64	29	1000 (37)
Copper-67	29	100 (3.7)
Curium-238	96	1000 (37)
Curium-240	96	1 (.037)
Curium-241	96	10 (.37)
Curium-242	96	1 (.037)
Curium-243	96	0.01 (.00037)
Curium-244	96	0.01 (.00037)
Curium-245	96	0.01 (.00037)
Curium-246	96	0.01 (.00037)
Curium-247	96	0.01 (.00037)
Curium-248	96	0.001 (.000037)
Curium-249	96	1000 (37)
Dysprosium-155	66	100 (3.7)
Dysprosium-157	66	100 (3.7)
Dysprosium-159	66	100 (3.7)
Dysprosium-165	66	1000 (37)
Dysprosium-166	66	10 (.37)
Einsteinium-250	99	10 (.37)
Einsteinium-251	99	1000 (37)
Einsteinium-253	99	10 (.37)
Einsteinium-254	99	0.1 (.0037)
Einsteinium-254m	99	1 (.037)
Erbium-161	68	100 (3.7)
Erbium-165	68	1000 (37)
Erbium-169	68	100 (3.7)
Erbium-171	68	100 (3.7)
Erbium-172	68	10 (.37)
Europium-145	63	10 (.37)
Europium-146	63	10 (.37)
Europium-147	63	10 (.37)
Europium-148	63	10 (.37)
Europium-149	63	100 (3.7)
Europium-150 (12.6 hr)	63	1000 (37)
Europium-150 (34.2 yr)	63	10 (.37)
Europium-152	63	10 (.37)
Europium-152m	63	100 (3.7)
Europium-154	63	10 (.37)
Europium-155	63	10 (.37)
Europium-156	63	10 (.37)
Europium-157	63	10 (.37)

Europium-158	63	1000 (37)
Fermium-252	100	10 (.37)
Fermium-253	100	10 (.37)
Fermium-254	100	100 (3.7)
Fermium-255	100	100 (3.7)
Fermium-257	100	1 (.037)
Fluorine-18	9	1000 (37)
Francium-222	87	100 (3.7)
Francium-223	87	100 (3.7)
Gadolinium-145	64	100 (3.7)
Gadolinium-146	64	10 (.37)
Gadolinium-147	64	10 (.37)
Gadolinium-148	64	0.001 (.000037)
Gadolinium-149	64	100 (3.7)
Gadolinium-151	64	100 (3.7)
Gadolinium-152	64	0.001 (.000037)
Gadolinium-153	64	10 (.37)
Gadolinium-159	64	1000 (37)
Gallium-65	31	1000 (37)
Gallium-66	31	10 (.37)
Gallium-67	31	100 (3.7)
Gallium-68	31	1000 (37)
Gallium-70	31	1000 (37)
Gallium-72	31	10 (.37)
Gallium-73	31	100 (3.7)
Germanium-66	32	100 (3.7)
Germanium-67	32	1000 (37)
Germanium-68	32	10 (.37)
Germanium-69	32	10 (.37)
Germanium-71	32	1000 (37)
Germanium-75	32	1000 (37)
Germanium-77	32	10 (.37)
Germanium-78	32	1000 (37)
Gold-193	79	100 (3.7)
Gold-194	79	10 (.37)
Gold-195	79	100 (3.7)
Gold-198	79	100 (3.7)
Gold-198m	79	10 (.37)
Gold-199	79	100 (3.7)
Gold-200	79	1000 (37)
Gold-200m	79	10 (.37)
Gold-201	79	1000 (37)
Hafnium-170	72	100 (3.7)
Hafnium-172	72	1 (.037)
Hafnium-173	72	100 (3.7)
Hafnium-175	72	100 (3.7)
Hafnium-177m	72	1000 (37)
Hafnium-178m	72	0.1 (.0037)
Hafnium-179m	72	100 (3.7)
Hafnium-180m	72	100 (3.7)
Hafnium-181	72	10 (.37)
Hafnium-182	72	0.1 (.0037)
Hafnium-182m	72	100 (3.7)
Hafnium-183	72	100 (3.7)
Hafnium-184	72	100 (3.7)
Holmium-155	67	1000 (37)
Holmium-157	67	1000 (37)

Holmium-159	67	1000 (37)
Holmium-161	67	1000 (37)
Holmium-162	67	1000 (37)
Holmium-162m	67	1000 (37)
Holmium-164	67	1000 (37)
Holmium-164m	67	1000 (37)
Holmium-166	67	100 (3.7)
Holmium-166m	67	1 (.037)
Holmium-167	67	100 (3.7)
Hydrogen-3	1	100 (3.7)
Indium-109	49	100 (3.7)
Indium-110 (4.9 hr)	49	10 (3.7)
Indium-110 (69.1 min)	49	100 (3.7)
Indium-111	49	100 (3.7)
Indium-112	49	1000 (37)
Indium-113m	49	1000 (37)
Indium-114m	49	10 (3.7)
Indium-115	49	0.1 (.0037)
Indium-115m	49	100 (3.7)
Indium-116m	49	100 (3.7)
Indium-117	49	1000 (37)
Indium-117m	49	100 (3.7)
Indium-119m	49	1000 (37)
Iodine-120	53	10 (3.7)
Iodine-120m	53	100 (3.7)
Iodine-121	53	100 (3.7)
Iodine-123	53	10 (3.7)
Iodine-124	53	0.1 (.0037)
Iodine-125	53	0.01 (.00037)
Iodine-126	53	0.01 (.00037)
Iodine-128	53	1000 (37)
Iodine-129	53	0.001 (.000037)
Iodine-130	53	1 (.037)
Iodine-131	53	0.01 (.00037)
Iodine-132	53	10 (3.7)
Iodine-132m	53	10 (3.7)
Iodine-133	53	0.1 (.0037)
Iodine-134	53	100 (3.7)
Iodine-135	53	10 (3.7)
Iridium-182	77	1000 (37)
Iridium-184	77	100 (3.7)
Iridium-185	77	100 (3.7)
Iridium-186	77	10 (3.7)
Iridium-187	77	100 (3.7)
Iridium-188	77	10 (3.7)
Iridium-189	77	100 (3.7)
Iridium-190	77	10 (3.7)
Iridium-190m	77	1000 (37)
Iridium-192	77	10 (3.7)
Iridium-192m	77	100 (3.7)
Iridium-194	77	100 (3.7)
Iridium-194m	77	10 (3.7)
Iridium-195	77	1000 (37)
Iridium-195m	77	100 (3.7)
Iron-52	26	100 (3.7)
Iron-55	26	100 (3.7)
Iron-59	26	10 (3.7)
Iron-60	26	0.1 (.0037)
Krypton-74	36	10 (3.7)
Krypton-76	36	10 (3.7)

Krypton-77	36	10 (.37)
Krypton-79	36	100 (3.7)
Krypton-81	36	1000 (37)
Krypton-83m	36	1000 (37)
Krypton-85	36	1000 (37)
Krypton-85m	36	100 (3.7)
Krypton-87	36	10 (.37)
Krypton-88	36	10 (.37)
Lanthanum-131	57	1000 (37)
Lanthanum-132	57	100 (3.7)
Lanthanum-135	57	1000 (37)
Lanthanum-137	57	10 (.37)
Lanthanum-138	57	1 (.037)
Lanthanum-140	57	10 (.37)
Lanthanum-141	57	1000 (37)
Lanthanum-142	57	100 (3.7)
Lanthanum-143	57	1000 (37)
Lead-195m	82	1000 (37)
Lead-198	82	100 (3.7)

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Lead-199	82	100 (3.7)
Lead-200	82	100 (3.7)
Lead-201	82	100 (3.7)
Lead-202	82	1 (.037)
Lead-202m	82	10 (.37)
Lead-203	82	100 (3.7)
Lead-205	82	100 (3.7)
Lead-209	82	1000 (37)
Lead-210	82	0.01 (.00037)
Lead-211	82	100 (3.7)
Lead-212	82	10 (.37)
Lead-214	82	100 (3.7)
Lutetium-169	71	10 (.37)
Lutetium-170	71	10 (.37)
Lutetium-171	71	10 (.37)
Lutetium-172	71	10 (.37)
Lutetium-173	71	100 (3.7)
Lutetium-174	71	10 (.37)
Lutetium-174m	71	10 (.37)
Lutetium-176	71	1 (.037)
Lutetium-176m	71	1000 (37)
Lutetium-177	71	100 (3.7)
Lutetium-177m	71	10 (.37)
Lutetium-178	71	1000 (37)
Lutetium-178m	71	1000 (37)
Lutetium-179	71	1000 (37)
Magnesium-28	12	10 (.37)
Manganese-51	25	1000 (37)
Manganese-52	25	10 (.37)
Manganese-52m	25	1000 (37)
Manganese-53	25	1000 (37)
Manganese-54	25	10 (.37)
Manganese-56	25	100 (3.7)
Mendelevium-257	101	100 (3.7)
Mendelevium-258	101	1 (.037)
Mercury-193	80	100 (3.7)
Mercury-193m	80	10 (.37)
Mercury-194	80	0.1 (.0037)

Mercury-195	80	100 (3.7)
Mercury-195m	80	100 (3.7)
Mercury-197	80	1000 (37)
Mercury-197m	80	1000 (37)
Mercury-199m	80	1000 (37)
Mercury-203	80	10 (.37)
Molybdenum-101	42	1000 (37)
Molybdenum-90	42	100 (3.7)
Molybdenum-93	42	100 (3.7)
Molybdenum-93m	42	10 (.37)
Molybdenum-99	42	100 (3.7)
Neodymium-136	60	1000 (37)
Neodymium-138	60	1000 (37)
Neodymium-139	60	1000 (37)
Neodymium-139m	60	100 (3.7)
Neodymium-141	60	1000 (37)
Neodymium-147	60	10 (.37)
Neodymium-149	60	100 (3.7)
Neodymium-151	60	1000 (37)
Neptunium-232	93	1000 (37)
Neptunium-233	93	1000 (37)
Neptunium-234	93	10 (.37)
Neptunium-235	93	1000 (37)
Neptunium-236 (1.2 E 5 yr)	93	0.1 (.0037)
Neptunium-236 (22.5 hr)	93	100 (3.7)
Neptunium-237	93	0.01 (.00037)
Neptunium-238	93	10 (.37)
Neptunium-239	93	100 (3.7)
Neptunium-240	93	100 (3.7)
Nickel-56	28	10 (.37)
Nickel-57	28	10 (.37)
Nickel-59	28	100 (3.7)
Nickel-63	28	100 (3.7)
Nickel-65	28	100 (3.7)
Nickel-66	28	10 (.37)
Niobium-88	41	100 (3.7)
Niobium-89 (122 min)	41	100 (3.7)
Niobium-89 (66 min)	41	100 (3.7)
Niobium-90	41	10 (.37)
Niobium-93m	41	100 (3.7)
Niobium-94	41	10 (.37)
Niobium-95	41	10 (.37)
Niobium-95m	41	100 (3.7)
Niobium-96	41	10 (.37)
Niobium-97	41	100 (3.7)
Niobium-98	41	1000 (37)
Osmium-180	76	1000 (37)
Osmium-181	76	100 (3.7)
Osmium-182	76	100 (3.7)
Osmium-185	76	10 (.37)
Osmium-189m	76	1000 (37)
Osmium-191	76	100 (3.7)
Osmium-191m	76	1000 (37)
Osmium-193	76	100 (3.7)
Osmium-194	76	1 (.037)
Palladium-100	46	100 (3.7)
Palladium-101	46	100 (3.7)
Palladium-103	46	100 (3.7)
Palladium-107	46	100 (3.7)
Palladium-109	46	1000 (37)

Phosphorus-32	15	0.1 (.0037)
Phosphorus-33	15	1 (.037)
Platinum-186	78	100 (3.7)
Platinum-188	78	100 (3.7)
Platinum-189	78	100 (3.7)
Platinum-191	78	100 (3.7)
Platinum-193	78	1000 (37)
Platinum-193m	78	100 (3.7)
Platinum-195m	78	100 (3.7)
Platinum-197	78	1000 (37)
Platinum-197m	78	1000 (37)
Platinum-199	78	1000 (37)
Platinum-200	78	100 (3.7)
Plutonium-234	94	1000 (37)
Plutonium-235	94	1000 (37)
Plutonium-236	94	0.1 (.0037)
Plutonium-237	94	1000 (37)
Plutonium-238	94	0.01 (.00037)
Plutonium-239	94	0.01 (.00037)
Plutonium-240	94	0.01 (.00037)
Plutonium-241	94	1 (.037)
Plutonium-242	94	0.01 (.00037)
Plutonium-243	94	1000 (37)
Plutonium-244	94	0.01 (.00037)
Plutonium-245	94	100 (3.7)
Polonium-203	84	100 (3.7)
Polonium-205	84	100 (3.7)
Polonium-207	84	10 (.37)
Polonium-210	84	0.01 (.00037)
Potassium-40	19	1 (.037)
Potassium-42	19	100 (3.7)
Potassium-43	19	10 (.37)
Potassium-44	19	100 (3.7)
Potassium-45	19	1000 (37)
Praseodymium-136	59	1000 (37)
Praseodymium-137	59	1000 (37)
Praseodymium-138m	59	100 (3.7)
Praseodymium-139	59	1000 (37)

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Praseodymium-142	59	100 (3.7)
Praseodymium-142m	59	1000 (37)
Praseodymium-143	59	10 (.37)
Praseodymium-144	59	1000 (37)
Praseodymium-145	59	1000 (37)
Praseodymium-147	59	1000 (37)
Promethium-141	61	1000 (37)
Promethium-143	61	100 (3.7)
Promethium-144	61	10 (.37)
Promethium-145	61	100 (3.7)
Promethium-146	61	10 (.37)
Promethium-147	61	10 (.37)
Promethium-148	61	10 (.37)
Promethium-148m	61	10 (.37)
Promethium-149	61	100 (3.7)
Promethium-150	61	100 (3.7)
Promethium-151	61	100 (3.7)
Protactinium-227	91	100 (3.7)

Protactinium-228	91	10 (.37)
Protactinium-230	91	10 (.37)
Protactinium-231	91	0.01 (.00037)
Protactinium-232	91	10 (.37)
Protactinium-233	91	100 (3.7)
Protactinium-234	91	10 (.37)
RADIONUCLIDES \$		1 (.037)
Radium-223	88	1 (.037)
Radium-224	88	10 (.37)
Radium-225	88	1 (.037)
Radium-226 **	88	0.1 (.0037)
Radium-227	88	1000 (37)
Radium-228	88	0.1 (.0037)
Radon-220	86	0.1 (.0037)
Radon-222	86	0.1 (.0037)
Rhenium-177	75	1000 (37)
Rhenium-178	75	1000 (37)
Rhenium-181	75	100 (3.7)
Rhenium-182 (12.7 hr)	75	10 (.37)
Rhenium-182 (64.0 hr)	75	10 (.37)
Rhenium-184	75	10 (.37)
Rhenium-184m	75	10 (.37)
Rhenium-186	75	100 (3.7)
Rhenium-186m	75	10 (.37)
Rhenium-187	75	1000 (37)
Rhenium-188	75	1000 (37)
Rhenium-188m	75	1000 (37)
Rhenium-189	75	1000 (37)
Rhodium-100	45	10 (.37)
Rhodium-101	45	10 (.37)
Rhodium-101m	45	100 (3.7)
Rhodium-102	45	10 (.37)
Rhodium-102m	45	10 (.37)
Rhodium-103m	45	1000 (37)
Rhodium-105	45	100 (3.7)
Rhodium-106m	45	10 (.37)
Rhodium-107	45	1000 (37)
Rhodium-99	45	10 (.37)
Rhodium-99m	45	100 (3.7)
Rubidium-79	37	1000 (37)
Rubidium-81	37	100 (3.7)
Rubidium-81m	37	1000 (37)
Rubidium-82m	37	10 (.37)
Rubidium-83	37	10 (.37)
Rubidium-84	37	10 (.37)
Rubidium-86	37	10 (.37)
Rubidium-87	37	10 (.37)
Rubidium-88	37	1000 (37)
Rubidium-89	37	1000 (37)
Ruthenium-103	44	10 (.37)
Ruthenium-105	44	100 (3.7)
Ruthenium-106	44	1 (.037)
Ruthenium-94	44	1000 (37)
Ruthenium-97	44	100 (3.7)
Samarium-141	62	1000 (37)
Samarium-141m	62	1000 (37)
Samarium-142	62	1000 (37)
Samarium-145	62	100 (3.7)
Samarium-146	62	0.01 (.00037)
Samarium-147	62	0.01 (.00037)

Samarium-151	62	10 (.37)
Samarium-153	62	100 (3.7)
Samarium-155	62	1000 (37)
Samarium-156	62	100 (3.7)
Scandium-43	21	1000 (37)
Scandium-44	21	100 (3.7)
Scandium-44m	21	10 (.37)
Scandium-46	21	10 (.37)
Scandium-47	21	100 (3.7)
Scandium-48	21	10 (.37)
Scandium-49	21	1000 (37)
Selenium-70	34	1000 (37)
Selenium-73	34	10 (.37)
Selenium-73m	34	100 (3.7)
Selenium-75	34	10 (.37)
Selenium-79	34	10 (.37)
Selenium-81	34	1000 (37)
Selenium-81m	34	1000 (37)
Selenium-83	34	1000 (37)
Silicon-31	14	1000 (37)
Silicon-32	14	1 (.037)
Silver-102	47	100 (3.7)
Silver-103	47	1000 (37)
Silver-104	47	1000 (37)
Silver-104m	47	1000 (37)
Silver-105	47	10 (.37)
Silver-106	47	1000 (37)
Silver-106m	47	10 (.37)
Silver-108m	47	10 (.37)
Silver-110m	47	10 (.37)
Silver-111	47	10 (.37)
Silver-112	47	100 (3.7)
Silver-115	47	1000 (37)
Sodium-22	11	10 (.37)
Sodium-24	11	10 (.37)
Strontium-80	38	100 (3.7)
Strontium-81	38	1000 (37)
Strontium-83	38	100 (3.7)
Strontium-85	38	10 (.37)
Strontium-85m	38	1000 (37)
Strontium-87m	38	100 (3.7)
Strontium-89	38	10 (.37)
Strontium-90	38	0.1 (.0037)
Strontium-91	38	10 (.37)
Strontium-92	38	100 (3.7)
Sulfur-35	16	1 (.037)
Tantalum-172	73	100 (3.7)
Tantalum-173	73	100 (3.7)
Tantalum-174	73	100 (3.7)
Tantalum-175	73	100 (3.7)
Tantalum-176	73	10 (.37)
Tantalum-177	73	1000 (37)
Tantalum-178	73	1000 (37)
Tantalum-179	73	1000 (37)
Tantalum-180	73	100 (3.7)
Tantalum-180m	73	1000 (37)
Tantalum-182	73	10 (.37)
Tantalum-182m	73	1000 (37)

Tantalum-183	73	100 (3.7)
Tantalum-184	73	10 (.37)
Tantalum-185	73	1000 (37)
Tantalum-186	73	1000 (37)
Technetium-101	43	1000 (37)
Technetium-104	43	1000 (37)
Technetium-93	43	100 (3.7)
Technetium-93m	43	1000 (37)
Technetium-94	43	10 (.37)
Technetium-94m	43	100 (3.7)
Technetium-96	43	10 (.37)
Technetium-96m	43	1000 (37)
Technetium-97	43	100 (3.7)
Technetium-97m	43	100 (3.7)
Technetium-98	43	10 (.37)
Technetium-99	43	10 (.37)
Technetium-99m	43	100 (3.7)
Tellurium-116	52	1000 (37)
Tellurium-121	52	10 (.37)
Tellurium-121m	52	10 (.37)
Tellurium-123	52	10 (.37)
Tellurium-123m	52	10 (.37)
Tellurium-125m	52	10 (.37)
Tellurium-127	52	1000 (37)
Tellurium-127m	52	10 (.37)
Tellurium-129	52	1000 (37)
Tellurium-129m	52	10 (.37)
Tellurium-131	52	1000 (37)
Tellurium-131m	52	10 (.37)
Tellurium-132	52	10 (.37)
Tellurium-133	52	1000 (37)
Tellurium-133m	52	1000 (37)
Tellurium-134	52	1000 (37)
Terbium-147	65	100 (3.7)
Terbium-149	65	100 (3.7)
Terbium-150	65	100 (3.7)
Terbium-151	65	10 (.37)
Terbium-153	65	100 (3.7)
Terbium-154	65	10 (.37)
Terbium-155	65	100 (3.7)
Terbium-156	65	10 (.37)
Terbium-156m (24.4 hr)	65	1000 (37)
Terbium-156m (5.0 hr)	65	1000 (37)
Terbium-157	65	100 (3.7)
Terbium-158	65	10 (.37)
Terbium-160	65	10 (.37)
Terbium-161	65	100 (3.7)
Thallium-194	81	1000 (37)
Thallium-194m	81	100 (3.7)
Thallium-195	81	100 (3.7)
Thallium-197	81	100 (3.7)
Thallium-198	81	10 (.37)
Thallium-198m	81	100 (3.7)
Thallium-199	81	100 (3.7)
Thallium-200	81	10 (.37)
Thallium-201	81	1000 (37)
Thallium-202	81	10 (.37)
Thallium-204	81	10 (.37)
Thorium (Irradiated)	90	***
Thorium (Natural)	90	**
Thorium-226	90	100 (3.7)

Thorium-227	90	1 (.037)
Thorium-228	90	0.01 (.00037)
Thorium-229	90	0.001 (.000037)
Thorium-230	90	0.01 (.00037)
Thorium-231	90	100 (3.7)
Thorium-232 **	90	0.001 (.000037)
Thorium-234	90	100 (3.7)
Thulium-162	69	1000 (37)
Thulium-166	69	10 (.37)
Thulium-167	69	100 (3.7)
Thulium-170	69	10 (.37)
Thulium-171	69	100 (3.7)
Thulium-172	69	100 (3.7)
Thulium-173	69	100 (3.7)
Thulium-175	69	1000 (37)
Tin-110	50	100 (3.7)
Tin-111	50	1000 (37)
Tin-113	50	10 (.37)
Tin-117m	50	100 (3.7)
Tin-119m	50	10 (.37)
Tin-121	50	1000 (37)
Tin-121m	50	10 (.37)
Tin-123	50	10 (.37)
Tin-123m	50	1000 (37)
Tin-125	50	10 (.37)
Tin-126	50	1 (.037)
Tin-127	50	100 (3.7)
Tin-128	50	1000 (37)
Titanium-44	22	1 (.037)
Titanium-45	22	1000 (37)
Tungsten-176	74	1000 (37)
Tungsten-177	74	100 (3.7)
Tungsten-178	74	100 (3.7)
Tungsten-179	74	1000 (37)
Tungsten-181	74	100 (3.7)
Tungsten-185	74	10 (.37)
Tungsten-187	74	100 (3.7)
Tungsten-188	74	10 (.37)
Uranium (Depleted)	92	***
Uranium (Irradiated)	92	***
Uranium (Natural)	92	**
Uranium Enriched 20% or greater	92	***
Uranium Enriched less than 20%	92	***
Uranium-230	92	1 (.037)
Uranium-231	92	1000 (37)
Uranium-232	92	0.01 (.00037)
Uranium-233	92	0.1 (.0037)
Uranium-234 **	92	0.1 (.0037)
Uranium-235 **	92	0.1 (.0037)
Uranium-236	92	0.1 (.0037)
Uranium-237	92	100 (3.7)
Uranium-238 **	92	0.1 (.0037)
Uranium-239	92	1000 (37)
Uranium-240	92	1000 (37)
Vanadium-47	23	1000 (37)
Vanadium-48	23	10 (.37)
Vanadium-49	23	1000 (37)
Xenon-120	54	100 (3.7)
Xenon-121	54	10 (.37)
Xenon-122	54	100 (3.7)

Xenon-123	54	10 (.37)
Xenon-125	54	100 (3.7)
Xenon-127	54	100 (3.7)
Xenon-129m	54	1000 (37)
Xenon-131m	54	1000 (37)
Xenon-133	54	1000 (37)
Xenon-133m	54	1000 (37)
Xenon-135	54	100 (3.7)
Xenon-135m	54	10 (.37)
Xenon-138	54	10 (.37)
Ytterbium-162	70	1000 (37)
Ytterbium-166	70	10 (.37)
Ytterbium-167	70	1000 (37)

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Ytterbium-169	70	10 (.37)
Ytterbium-175	70	100 (3.7)
Ytterbium-177	70	1000 (37)
Ytterbium-178	70	1000 (37)
Yttrium-86	39	10 (.37)
Yttrium-86m	39	1000 (37)
Yttrium-87	39	10 (.37)
Yttrium-88	39	10 (.37)
Yttrium-90	39	10 (.37)
Yttrium-90m	39	100 (3.7)
Yttrium-91	39	10 (.37)
Yttrium-91m	39	1000 (37)
Yttrium-92	39	100 (3.7)
Yttrium-93	39	100 (3.7)
Yttrium-94	39	1000 (37)
Yttrium-95	39	1000 (37)
Zinc-62	30	100 (3.7)
Zinc-63	30	1000 (37)

Zinc-65	30	10 (.37)
Zinc-69	30	1000 (37)
Zinc-69m	30	100 (3.7)
Zinc-71m	30	100 (3.7)
Zinc-72	30	100 (3.7)
Zirconium-86	40	100 (3.7)
Zirconium-88	40	10 (.37)
Zirconium-89	40	100 (3.7)
Zirconium-93	40	1 (.037)
Zirconium-95	40	10 (.37)
Zirconium-97	40	10 (.37)

\$ The RQs for all radionuclides apply to chemical compounds containing the radionuclides and elemental forms regardless of the diameter of pieces of solid material.

The RQ of one curie applies to all radionuclides not otherwise listed. Whenever the RQs in TABLE 1--HAZARDOUS SUBSTANCES OTHER THAN RADIONUCLIDES and this table conflict, the lowest RQ shall apply. For example, uranyl acetate and uranyl nitrate have RQs shown in TABLE 1 of 100 pounds, equivalent to about one-tenth the RQ level for uranium-238 in this table.

** The method to determine the RQs for mixtures or solutions of radionuclides can be found in paragraph 7 of the note preceding TABLE 1 of this appendix. RQs for the following four common radionuclide mixtures are provided: radium-226 in secular equilibrium with its

daughters (0.053 curie); natural uranium (0.1 curie); natural uranium in secular equilibrium with its daughters (0.052 curie); and natural thorium in secular equilibrium with its daughters (0.011 curie).
*** Indicates that the name was added by RSPA because it appears in the list of radionuclides in 49 CFR 173.435. The reportable quantity (RQ), if not specifically listed elsewhere in this appendix, shall be determined in accordance with the procedures in paragraph 7 of this appendix.

[Amdt. 172-122, 55 FR 46798, Nov. 7, 1990]

Editorial Note: For Federal Register citations affecting appendix A to Sec. 172.101, see the List of CFR Sections Affected in the Finding Aids section of this volume.

Appendix B to Sec. 172.101--List of Marine Pollutants

1. This appendix lists potential marine pollutants as defined in Sec. 171.8 of this subchapter.
2. If a marine pollutant meets the definition of any hazard class or division as defined in this subchapter, other than Class 9, the class of the material must be determined in accordance with Sec. 173.2a of this subchapter.
3. This appendix contains two columns. The first column, entitled ``S.M.P.'' (for severe marine pollutants), identifies whether a material is a severe marine pollutant. If the letters ``PP'' appear in this column for a material, the material is a severe marine pollutant, otherwise it is not. The second column, entitled ``Marine Pollutant'' , lists the marine pollutants.
4. If a material not listed in this appendix meets the criteria for a marine pollutant, as provided in the General Introduction of the IMDG Code, Guidelines for the Identification of Harmful Substances in Packaged Form, the material may be transported as a marine pollutant in accordance with the applicable requirements of this subchapter.
5. If approved by the Associate Administrator for Hazardous Materials Safety, a material listed in this appendix which does not meet the criteria for a marine pollutant, as provided in the General Introduction of the IMDG Code, Guidelines for the Identification of Harmful Substances in Packaged Form, is excepted from the requirements of this subchapter as a marine pollutant.

[Code of Federal Regulations]
[Title 49, Volume 2, Parts 100 to 185]
[Revised as of October 1, 2000]
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TITLE 49--TRANSPORTATION

CHAPTER I--RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

PART 171--GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS--Table of Contents

Sec. 171.8 Definitions and abbreviations.

In this subchapter,

Aerosol means any non-refillable receptacle containing a gas compressed, liquefied or dissolved under pressure, the sole purpose of which is to expel a nonpoisonous (other than a Division 6.1 Packing Group III material) liquid, paste, or powder and fitted with a self-

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closing release device allowing the contents to be ejected by the gas.

Agricultural product means a hazardous material, other than a hazardous waste, whose end use directly supports the production of an agricultural commodity including, but not limited to a fertilizer, pesticide, soil amendment or fuel. An agricultural product is limited to a material in Class 3, 8 or 9, Division 2.1, 2.2, 5.1, or 6.1, or an ORM-D material.

Approval means a written authorization, including a competent authority approval, from the Associate Administrator to perform a function for which prior authorization by the Associate Administrator is required under subchapter C of this chapter.

Approved means approval issued or recognized by the Department unless otherwise specifically indicated in this subchapter.

Asphyxiant gas means a gas which dilutes or replaces oxygen normally in the atmosphere.

Atmospheric gases means air, nitrogen, oxygen, argon, krypton, neon and xenon.

Authorized Inspection Agency means: (1) A jurisdiction which has adopted and administers one or more sections of the ASME Boiler and Pressure Vessel Code as a legal requirement and has a representative serving as a member of the ASME Conference Committee; or (2) an insurance company which has been licensed or registered by the appropriate authority of a State of the United States or a Province of Canada to underwrite boiler and pressure vessel insurance in such State or Province.

Authorized Inspector means an Inspector who is currently commissioned by the National Board of Boiler and Pressure Vessel Inspectors and employed as an Inspector by an Authorized Inspection Agency.

Bag means a flexible packaging made of paper, plastic film, textiles, woven material or other similar materials.

Bar means 1 BAR = 100 kPa (14.5 psi).

Barge means a non-selfpropelled vessel.

Bottle means an inner packaging having a neck of relatively smaller cross section than the body and an opening capable of holding a closure for retention of the contents.

Bottom shell means that portion of a tank car tank surface, excluding the head ends of the tank car tank, that lies within two feet, measured circumferentially, of the bottom longitudinal center line of the tank car tank.

Box means a packaging with complete rectangular or polygonal faces, made of metal, wood, plywood, reconstituted wood, fiberboard, plastic, or other suitable material. Holes appropriate to the size and use of the packaging, for purposes such as ease of handling or opening, or to meet classification requirements, are permitted as long as they do not compromise the integrity of the packaging during transportation, and are not otherwise prohibited in this subchapter.

Break-bulk means packages of hazardous materials that are handled individually, palletized, or unitized for purposes of transportation as

opposed to bulk and containerized freight.

Btu means British thermal unit.

Bulk packaging means a packaging, other than a vessel or a barge, including a transport vehicle or freight container, in which hazardous materials are loaded with no intermediate form of containment and which has:

- (1) A maximum capacity greater than 450 L (119 gallons) as a receptacle for a liquid;
- (2) A maximum net mass greater than 400 kg (882 pounds) and a maximum capacity greater than 450 L (119 gallons) as a receptacle for a solid; or
- (3) A water capacity greater than 454 kg (1000 pounds) as a receptacle for a gas as defined in Sec. 173.115 of this subchapter.

Bureau of Explosives means the Bureau of Explosives (B of E) of the Association of American Railroads.

C means Celsius or Centigrade.

Captain of the Port (COTP) means the officer of the Coast Guard, under the command of a District Commander, so designated by the Commandant for the purpose of giving immediate direction to Coast Guard law enforcement activities within an assigned area. As used in this subchapter, the term Captain of the Port includes an authorized representative of the Captain of the Port.

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Carfloat means a vessel that operates on a short run on an irregular basis and serves one or more points in a port area as an extension of a rail line or highway over water, and does not operate in ocean, coastwise, or ferry service.

Cargo aircraft only means an aircraft that is used to transport cargo and is not engaged in carrying passengers. For purposes of this subchapter, the terms cargo aircraft only, cargo-only aircraft and cargo aircraft have the same meaning.

Cargo tank means a bulk packaging which:

- (1) Is a tank intended primarily for the carriage of liquids or gases and includes appurtenances, reinforcements, fittings, and closures (for tank, see 49 CFR 178.345-1(c), 178.337-1, or 178.338-1, as applicable);
- (2) Is permanently attached to or forms a part of a motor vehicle, or is not permanently attached to a motor vehicle but which, by reason of its size, construction or attachment to a motor vehicle is loaded or unloaded without being removed from the motor vehicle; and
- (3) Is not fabricated under a specification for cylinders, portable tanks, tank cars, or multi-unit tank car tanks.

Cargo tank motor vehicle means a motor vehicle with one or more cargo tanks permanently attached to or forming an integral part of the motor vehicle.

Cargo vessel means: (1) Any vessel other than a passenger vessel; and

(2) Any ferry being operated under authority of a change of character certificate issued by a Coast Guard Officer-in-Charge, Marine Inspection.

Carrier means a person engaged in the transportation of passengers or property by:

- (1) Land or water, as a common, contract, or private carrier, or
- (2) Civil aircraft.

CC means closed-cup.

Character of vessel means the type of service in which the vessel is engaged at the time of carriage of a hazardous material.

Class means hazard class. See hazard class.

Class 1. See Sec. 173.50 of this subchapter.

Class 2. See Sec. 173.115 of this subchapter.

Class 3. See Sec. 173.120 of this subchapter.

Class 4. See Sec. 173.124 of this subchapter.

Class 5. See Sec. 173.128 of this subchapter.

Class 6. See Sec. 173.132 of this subchapter.

Class 7. See Sec. 173.403 of this subchapter.

Class 8. See Sec. 173.136 of this subchapter.

Class 9. See Sec. 173.140 of this subchapter.

Closure means a device which closes an opening in a receptacle.

COFC means container-on-flat-car.

Combination packaging means a combination of packaging, for transport purposes, consisting of one or more inner packagings secured in a non-bulk outer packaging. It does not include a composite packaging.

Combustible liquid. See Sec. 173.120 of this subchapter.

Compatibility group letter means a designated alphabetical letter used to categorize different types of explosive substances and articles for purposes of stowage and segregation. See Sec. 173.52 of this subchapter.

Competent Authority means a national agency responsible under its national law for the control or regulation of a particular aspect of the transportation of hazardous materials (dangerous goods). The term Appropriate Authority, as used in the ICAO Technical Instructions, has the same meaning as Competent Authority. For purposes of this subchapter, the Associate Administrator for Hazardous Materials Safety is the Competent Authority for the United States.

Composite packaging means a packaging consisting of an outer packaging and an inner receptacle, so constructed that the inner receptacle and the outer packaging form an integral packaging. Once assembled it remains thereafter an integrated single unit; it is filled, stored, shipped and emptied as such.

Compressed gas. See Sec. 173.115 of this subchapter.

Consumer commodity means a material that is packaged and distributed in a form intended or suitable for sale

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through retail sales agencies or instrumentalities for consumption by individuals for purposes of personal care or household use. This term also includes drugs and medicines.

Containership means a cargo vessel designed and constructed to transport, within specifically designed cells, portable tanks and freight containers which are lifted on and off with their contents intact.

Corrosive material. See Sec. 173.136 of this subchapter.

Crate means an outer packaging with incomplete surfaces.

Crewmember means a person assigned to perform duty in an aircraft during flight time.

Cryogenic liquid. See Sec. 173.115(g) of this subchapter.

Cylinder means a pressure vessel designed for pressures higher than 40 psia and having a circular cross section. It does not include a portable tank, multi-unit tank car tank, cargo tank, or tank car.

Dangerous when wet material. See Sec. 173.124 of this subchapter.

Design Certifying Engineer means a person registered with the Department in accordance with subpart F of part 107 of this chapter who has the knowledge and ability to perform stress analysis of pressure vessels and to otherwise determine whether a cargo tank design and construction meets the applicable DOT specification. In addition, Design Certifying Engineer means a person who meets, at a minimum, any one of the following:

(1) Has an engineering degree and one year of work experience in cargo tank structural or mechanical design.

(2) Is currently registered as a professional engineer by the

appropriate authority of a State of the United States or a Province of Canada.

(3) Has at least three years experience in performing the duties of a Design Certifying Engineer by September 1, 1991, and was registered with the Department by December 31, 1995.

Designated facility means a hazardous waste treatment, storage, or disposal facility that has been designated on the manifest by the generator.

District Commander means the District Commander of the Coast Guard, or his authorized representative, who has jurisdiction in the particular geographical area.

Division means a subdivision of a hazard class.

DOD means the U.S. Department of Defense.

Domestic transportation means transportation between places within the United States other than through a foreign country.

Drum means a flat-ended or convex-ended cylindrical packaging made of metal, fiberboard, plastic, plywood, or other suitable materials. This definition also includes packagings of other shapes made of metal or plastic (e.g., round taper-necked packagings or pail-shaped packagings) but does not include cylinders, jerricans, wooden barrels or bulk packagings.

Elevated temperature material means a material which, when offered for transportation or transported in a bulk packaging:

(1) Is in a liquid phase and at a temperature at or above 100 deg.C (212 deg.F);

(2) Is in a liquid phase with a flash point at or above 37.8 deg.C (100 deg.F) that is intentionally heated and offered for transportation or transported at or above its flash point; or

(3) Is in a solid phase and at a temperature at or above 240 deg.C (464 deg.F).

Engine means a locomotive propelled by any form of energy and used by a railroad.

EPA means U.S. Environmental Protection Agency.

Etiologic agent. See Sec. 173.134 of this subchapter.

EX number means a number preceded by the prefix ``EX'', assigned by the Associate Administrator for Hazardous Materials Safety, to an item that has been evaluated under the provisions of Sec. 173.56 of this subchapter.

Exemption means a document issued under the authority of 49 U.S.C. 5117 by the Associate Administrator that authorizes a person to perform a function that is not otherwise authorized under this subchapter, subchapter C, or other regulations issued under 49 U.S.C. 5101-5127 (e.g., Federal Motor Carrier Safety Administration routing).

Explosive. See Sec. 173.50 of this subchapter.

F means degree Fahrenheit.

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Farmer means a person engaged in the production or raising of crops, poultry, or livestock.

Federal hazardous material transportation law means 49 U.S.C. 5101 et seq.

Ferry vessel means a vessel which is limited in its use to the carriage of deck passengers or vehicles or both, operates on a short run on a frequent schedule between two points over the most direct water route, other than in ocean or coastwise service, and is offered as a public service of a type normally attributed to a bridge or tunnel.

Filling density has the following meanings:

(1) For compressed gases in cylinders, see Sec. 173.304(a)(2) table note 1.

(2) For compressed gases in tank cars, see Sec. 173.314(c) table note 1.

(3) For compressed gases in cargo tanks and portable tanks, see Sec. 173.315(a) table note 1.

(4) For cryogenic liquids in cylinders, except hydrogen, see Sec. 173.316(c)(1).

(5) For hydrogen, cryogenic liquid in cylinders, see Sec. 173.316(c)(3) table note 1.

(6) For cryogenic liquids in cargo tanks, see Sec. 173.318(f)(1).

(7) For cryogenic liquids in tank cars, see Sec. 173.319(d)(1).

Flammable gas. See Sec. 173.115 of this subchapter.

Flammable liquid. See Sec. 173.120 of this subchapter.

Flammable solid. See Sec. 173.124 of this subchapter.

Flash point. See Sec. 173.120 of this subchapter.

Freight container means a reusable container having a volume of 64 cubic feet or more, designed and constructed to permit being lifted with its contents intact and intended primarily for containment of packages (in unit form) during transportation.

Fuel tank means a tank other than a cargo tank, used to transport flammable or combustible liquid, or compressed gas for the purpose of supplying fuel for propulsion of the transport vehicle to which it is attached, or for the operation of other equipment on the transport vehicle.

Fumigated lading. See Secs. 172.302(g) and 173.9.

Gas means a material which has a vapor pressure greater than 300 kPa (43.5 psi) at 50 deg.C (122 deg.F) or is completely gaseous at 20 deg.C (68 deg.F) at a standard pressure of 101.3 kPa (14.7 psi).

Gross weight or Gross mass means the weight of a packaging plus the weight of its contents.

Hazard class means the category of hazard assigned to a hazardous material under the definitional criteria of part 173 of this subchapter and the provisions of the Sec. 172.101 table. A material may meet the defining criteria for more than one hazard class but is assigned to only one hazard class.

Hazard zone means one of four levels of hazard (Hazard Zones A through D) assigned to gases, as specified in Sec. 173.116(a) of this subchapter, and one of two levels of hazards (Hazard Zones A and B) assigned to liquids that are poisonous by inhalation, as specified in Sec. 173.133(a) of this subchapter. A hazard zone is based on the LC50 value for acute inhalation toxicity of gases and vapors, as specified in Sec. 173.133(a).

Hazardous material means a substance or material, which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated. The term includes hazardous substances, hazardous wastes, marine pollutants, and elevated temperature materials as defined in this section, materials designated as hazardous under the provisions of Sec. 172.101 of this subchapter, and materials that meet the defining criteria for hazard classes and divisions in part 173 of this subchapter.

Hazardous substance for the purposes of this subchapter, means a material, including its mixtures and solutions, that--

(1) Is listed in the appendix A to Sec. 172.101 of this subchapter;

(2) Is in a quantity, in one package, which equals or exceeds the reportable quantity (RQ) listed in the appendix A to Sec. 172.101 of this subchapter; and

(3) When in a mixture or solution--

(i) For radionuclides, conforms to paragraph 7 of the appendix A to Sec. 172.101.

(ii) For other than radionuclides, is in a concentration by weight which equals or exceeds the concentration corresponding to the RQ of the material, as shown in the following table:

RQ pounds (kilograms)	Concentration by weight	
	Percent	PPM
5000 (2270).....	10	100,000
1000 (454).....	2	20,000
100 (45.4).....	0.2	2,000
10 (4.54).....	0.02	200
1 (0.454).....	0.002	20

The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in appendix A to Sec. 172.101 of this subchapter, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Hazardous waste, for the purposes of this chapter, means any material that is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 40 CFR part 262.

Hazmat employee means a person who is employed by a hazmat employer and who in the course of employment directly affects hazardous materials transportation safety. This term includes an owner-operator of a motor vehicle which transports hazardous materials in commerce. This term includes an individual, including a self-employed individual, employed by a hazmat employer who, during the course of employment:

- (1) Loads, unloads, or handles hazardous materials;
- (2) Manufactures, tests, reconditions, repairs, modifies, marks, or otherwise represents containers, drums, or packagings as qualified for use in the transportation of hazardous materials;
- (3) Prepares hazardous materials for transportation;
- (4) Is responsible for safety of transporting hazardous materials;

or

- (5) Operates a vehicle used to transport hazardous materials.

Hazmat employer means a person who uses one or more of its employees in connection with: transporting hazardous materials in commerce; causing hazardous materials to be transported or shipped in commerce; or representing, marking, certifying, selling, offering, manufacturing, reconditioning, testing, repairing, or modifying containers, drums, or packagings as qualified for use in the transportation of hazardous materials. This term includes an owner-operator of a motor vehicle which transports hazardous materials in commerce. This term also includes any department, agency, or instrumentality of the United States, a State, a political subdivision of a State, or an Indian tribe engaged in an activity described in the first sentence of this definition.

Hermetically sealed means closed by fusion, gasketing, crimping, or equivalent means so that no gas or vapor can enter or escape.

IAEA means International Atomic Energy Agency.

IATA means International Air Transport Association.

ICAO means International Civil Aviation Organization.

IMO means International Maritime Organization.

Infectious substance (etiologic agent). See Sec. 173.134 of this subchapter.

Inner packaging means a packaging for which an outer packaging is required for transport. It does not include the inner receptacle of a composite packaging.

Inner receptacle means a receptacle which requires an outer packaging in order to perform its containment function. The inner receptacle may be an inner packaging of a combination packaging or the inner receptacle of a composite packaging.

Intermediate bulk container (IBC) means a rigid or flexible portable packaging, other than a cylinder or portable tank, which is designed for mechanical handling. Standards for intermediate bulk containers manufactured in the United States are set forth in subparts N and O of part 178 of this subchapter.

Intermediate packaging means a packaging which encloses an inner packaging or article and is itself enclosed in an outer packaging.

Intermodal container means a freight container designed and constructed to permit it to be used interchangeably in two or more modes of transport.

Intermodal portable tank or IM portable tank means a specific class of portable tanks designed primarily for international intermodal use.

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International transportation means transportation--

(1) Between any place in the United States and any place in a foreign country;

(2) Between places in the United States through a foreign country; or

(3) Between places in one or more foreign countries through the United States.

Irritating material. See Sec. 173.132(a)(2) of this subchapter.

Jerrican means a metal or plastic packaging of rectangular or polygonal cross-section.

Limited quantity, when specified as such in a section applicable to a particular material, means the maximum amount of a hazardous material for which there is a specific labeling or packaging exception.

Liquid means a material, other than an elevated temperature material, with a melting point or initial melting point of 20 deg.C (68 deg.F) or lower at a standard pressure of 101.3 kPa (14.7 psi). A viscous material for which a specific melting point cannot be determined must be subjected to the procedures specified in ASTM D 4359 ``Standard Test Method for Determining Whether a Material is Liquid or Solid''.

Liquid phase means a material that meets the definition of liquid when evaluated at the higher of the temperature at which it is offered for transportation or at which it is transported, not at the 37.8 deg.C (100 deg.F) temperature specified in ASTM D 4359-84.

Magazine vessel means a vessel used for the receiving, storing, or dispensing of explosives.

Magnetic material. See Sec. 173.21(d) of this subchapter.

Marine pollutant, means a material which is listed in appendix B to Sec. 172.101 of this subchapter (also see Sec. 171.4) and, when in a solution or mixture of one or more marine pollutants, is packaged in a concentration which equals or exceeds:

(1) Ten percent by weight of the solution or mixture for materials listed in the appendix; or

(2) One percent by weight of the solution or mixture for materials that are identified as severe marine pollutants in the appendix.

Marking means a descriptive name, identification number, instructions, cautions, weight, specification, or UN marks, or combinations thereof, required by this subchapter on outer packagings of hazardous materials.

Material of trade means a hazardous material, other than a hazardous waste, that is carried on a motor vehicle--

(1) For the purpose of protecting the health and safety of the motor vehicle operator or passengers;

(2) For the purpose of supporting the operation or maintenance of a

motor vehicle (including its auxiliary equipment); or

(3) By a private motor carrier (including vehicles operated by a rail carrier) in direct support of a principal business that is other than transportation by motor vehicle.

Material poisonous by inhalation means:

(1) A gas meeting the defining criteria in Sec. 173.115(c) of this subchapter and assigned to Hazard Zone A, B, C, or D in accordance with Sec. 173.116(a) of this subchapter;

(2) A liquid (other than as a mist) meeting the defining criteria in Sec. 173.132(a)(1)(iii) of this subchapter and assigned to Hazard Zone A or B in accordance with Sec. 173.133(a) of this subchapter; or

(3) Any material identified as an inhalation hazard by a special provision in column 7 of the Sec. 172.101 table.

Maximum Allowable Working Pressure or MAWP For DOT specification cargo tanks used to transport liquid hazardous materials, see Sec. 178.345-1(k).

Maximum capacity means the maximum inner volume of receptacles or packagings.

Maximum net mass means the allowable maximum net mass of contents in a single packaging, or as used in subpart M of part 178 of this subchapter, the maximum combined mass of inner packaging, and the contents thereof.

Metered delivery service means a cargo tank unloading operation conducted at a metered flow rate of 378.5 liters (100 gallons) per minute or less through an attached delivery hose with a nominal inside diameter of 3.175 centimeters (1 1/4 inches) or less.

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Miscellaneous hazardous material. See Sec. 173.140 of this subchapter.

Mixture means a material composed of more than one chemical compound or element.

Mode means any of the following transportation methods; rail, highway, air, or water.

Motor vehicle includes a vehicle, machine, tractor, trailer, or semitrailer, or any combination thereof, propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property. It does not include a vehicle, locomotive, or car operated exclusively on a rail or rails, or a trolley bus operated by electric power derived from a fixed overhead wire, furnishing local passenger transportation similar to street-railway service.

Name of contents means the proper shipping name as specified in Sec. 172.101 of this subchapter.

Navigable waters means, for the purposes of this subchapter, waters of the United States, including the territorial seas.

Non-bulk packaging means a packaging which has:

(1) A maximum capacity of 450 L (119 gallons) or less as a receptacle for a liquid;

(2) A maximum net mass of 400 kg (882 pounds) or less and a maximum capacity of 450 L (119 gallons) or less as a receptacle for a solid; or

(3) A water capacity of 454 kg (1000 pounds) or less as a receptacle for a gas as defined in Sec. 173.115 of this subchapter.

Nonflammable gas. See Sec. 173.115 of this subchapter.

N.O.S. means not otherwise specified.

N.O.S. description means a shipping description from the Sec. 172.101 table which includes the abbreviation n.o.s.

NPT means an American Standard taper pipe thread conforming to requirements of Federal Standard H28, part II, section VII. See Sec. 171.7(d)(12).

NRC (non-reusable container) means a packaging (container) whose reuse is restricted in accordance with the provisions of Sec. 173.28 of

this subchapter.

Occupationally exposed hazmat employee means a hazmat employee whose duties involve exposure to ionizing radiation.

Occupied caboose means a rail car being used to transport non-passenger personnel.

Officer in Charge, Marine Inspection means a person from the civilian or military branch of the Coast Guard designated as such by the Commandant and who under the supervision and direction of the Coast Guard District Commander is in charge of a designated inspection zone for the performance of duties with respect to the enforcement and administration of title 52, Revised Statutes, acts amendatory thereof or supplemental thereto, rules and regulations thereunder, and the inspection required thereby.

Offshore supply vessel means a cargo vessel of less than 500 gross tons that regularly transports goods, supplies or equipment in support of exploration or production of offshore mineral or energy resources.

Operator means a person who controls the use of an aircraft, vessel, or vehicle.

Organic peroxide. See Sec. 173.128 of this subchapter.

ORM means other regulated material. See Sec. 173.144 of this subchapter.

Outage or ullage means the amount by which a packaging falls short of being liquid full, usually expressed in percent by volume.

Outer packaging means the outermost enclosure of a composite or combination packaging together with any absorbent materials, cushioning and any other components necessary to contain and protect inner receptacles or inner packagings.

Overpack, except as provided in subpart K of part 178 of this subchapter, means an enclosure that is used by a single consignor to provide protection or convenience in handling of a package or to consolidate two or more packages. Overpack does not include a transport vehicle, freight container, or aircraft unit load device. Examples of overpacks are one or more packages:

(1) Placed or stacked onto a load board such as a pallet and secured by strapping, shrink wrapping, stretch wrapping, or other suitable means; or

(2) Placed in a protective outer packaging such as a box or crate.

Oxidizer. See Sec. 173.127 of this subchapter.

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Oxidizing gas means a gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does.

Oxygen generator (chemical) means a device containing chemicals that upon activation release oxygen as a product of chemical reaction.

Package or Outside Package means a packaging plus its contents. For radioactive materials, see Sec. 173.403 of this subchapter.

Packaging means a receptacle and any other components or materials necessary for the receptacle to perform its containment function in conformance with the minimum packing requirements of this subchapter. For radioactive materials packaging, see Sec. 173.403 of this subchapter.

Packing group means a grouping according to the degree of danger presented by hazardous materials. Packing Group I indicates great danger; Packing Group II, medium danger; Packing Group III, minor danger. See Sec. 172.101(f) of this subchapter.

Passenger (With respect to vessels and for the purposes of part 176 only) means a person being carried on a vessel other than:

(1) The owner or his representative;

(2) The operator;

(3) A bona fide member of the crew engaged in the business of the

vessel who has contributed no consideration for his carriage and who is paid for his services; or

(4) A guest who has not contributed any consideration directly or indirectly for his carriage.

Passenger-carrying aircraft means an aircraft that carries any person other than a crewmember, company employee, an authorized representative of the United States, or a person accompanying the shipment.

Passenger vessel means--

(1) A vessel subject to any of the requirements of the International Convention for the Safety of Life at Sea, 1974, which carries more than 12 passengers;

(2) A cargo vessel documented under the laws of the United States and not subject to that Convention, which carries more than 16 passengers;

(3) A cargo vessel of any foreign nation that extends reciprocal privileges and is not subject to that Convention and which carries more than 16 passengers; and

(4) A vessel engaged in a ferry operation and which carries passengers.

Person means an individual, firm, copartnership, corporation, company, association, joint-stock association, including any trustee, receiver, assignee, or similar representative thereof; or government, Indian tribe, or agency or instrumentality of any government or Indian tribe when it offers hazardous material for transportation in commerce or transports hazardous material to further a commercial enterprise, but such term does not include:

(1) The United States Postal Service;

(2) For the purposes of 49 U.S.C. 5123 and 5124, any agency or instrumentality of the Federal Government.

Placarded car means a rail car which is placarded in accordance with the requirements of part 172 of this subchapter.

Poisonous gas. See Sec. 173.115 of this subchapter.

Poisonous materials. See Sec. 173.132 of this subchapter.

Portable tank means a bulk packaging (except a cylinder having a water capacity of 1000 pounds or less) designed primarily to be loaded onto, or on, or temporarily attached to a transport vehicle or ship and equipped with skids, mountings, or accessories to facilitate handling of the tank by mechanical means. It does not include a cargo tank, tank car, multi-unit tank car tank, or trailer carrying 3AX, 3AAX, or 3T cylinders.

Preferred route or Preferred highway is a highway for shipment of highway route controlled quantities of radioactive materials so designated by a State routing agency, and any Interstate System highway for which an alternative highway has not been designated by such State agency as provided by Sec. 397.103 of this title.

Primary hazard means the hazard class of a material as assigned in the Sec. 172.101 table.

Private track or Private siding means track located outside of a carrier's right-of-way, yard, or terminals where the carrier does not own the rails, ties, roadbed, or right-of-way and includes

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track or portion of track which is devoted to the purpose of its user either by lease or written agreement, in which case the lease or written agreement is considered equivalent to ownership.

Proper shipping name means the name of the hazardous material shown in Roman print (not italics) in Sec. 172.101 of this subchapter.

P.s.i. or psi means pounds per square inch.

P.s.i.a. or psia means pounds per square inch absolute.

P.s.i.g. or psig means pounds per square inch gauge.

Public vessel means a vessel owned by and being used in the public service of the United States. It does not include a vessel owned by the United States and engaged in a trade or commercial service or a vessel under contract or charter to the United States.

Pyrophoric liquid. See Sec. 173.124(b) of this subchapter.

Radioactive materials. See Sec. 173.403 of this subchapter for definitions relating to radioactive materials.

Rail car means a car designed to carry freight or non-passenger personnel by rail, and includes a box car, flat car, gondola car, hopper car, tank car, and occupied caboose.

Railroad means a person engaged in transportation by rail.

Receptacle means a containment vessel for receiving and holding materials, including any means of closing.

Registered Inspector means a person registered with the Department in accordance with subpart F of part 107 of this chapter who has the knowledge and ability to determine whether a cargo tank conforms with the applicable DOT specification. In addition, Registered Inspector means a person who meets, at a minimum, any one of the following:

(1) Has an engineering degree and one year of work experience.

(2) Has an associate degree in engineering and two years of work experience.

(3) Has a high school diploma or General Equivalency Diploma) and three years of work experience.

(4) Has at least three years experience in performing the duties of a Registered Inspector by September 1, 1991, and was registered with the Department by December 31, 1995.

Regulated medical waste. See Sec. 173.134 of this subchapter.

Reportable quantity (RQ) for the purposes of this subchapter means the quantity specified in column 2 of the appendix to Sec. 172.101 for any material identified in column 1 of the appendix.

Research means investigation or experimentation aimed at the discovery of new theories or laws and the discovery and interpretation of facts or revision of accepted theories or laws in the light of new facts.

Residue means the hazardous material remaining in a packaging, including a tank car, after its contents have been unloaded to the maximum extent practicable and before the packaging is either refilled or cleaned of hazardous material and purged to remove any hazardous vapors.

RSPA means the Research and Special Programs Administration, U.S. Department of Transportation, Washington, DC 20590.

SADT means self-accelerated decomposition temperature. See Sec. 173.21(f) of this subchapter.

Salvage packaging means a special packaging conforming to Sec. 173.3 of this subchapter into which damaged, defective or leaking hazardous materials packages, or hazardous materials that have spilled or leaked, are placed for purposes of transport for recovery or disposal.

SCF (standard cubic foot) means one cubic foot of gas measured at 60 deg.F. and 14.7 psia.

Self-defense spray means an aerosol or non-pressurized device that:

(1) Is intended to have an irritating or incapacitating effect on a person or animal; and

(2) Meets no hazard criteria other than for Class 9 (for example, a pepper spray; see Sec. 173.140(a) of this subchapter) and, for an aerosol, Division 2.1 or 2.2 (see Sec. 173.115 of this subchapter), except that it may contain not more than two percent by mass of a tear gas substance (e.g., chloroacetophenone (CN) or 0-chlorobenzylmalonitrile (CS); see Sec. 173.132(a)(2) of this subchapter.)

Sheathing means a covering consisting of a smooth layer of wood

placed over metal and secured to prevent any movement.

Shipping paper means a shipping order, bill of lading, manifest or other shipping document serving a similar purpose and containing the information required by Secs. 172.202, 172.203 and 172.204.

Siftproof packaging means a packaging impermeable to dry contents, including fine solid material produced during transportation.

Single packaging means a non-bulk packaging other than a combination packaging.

Solid means a material which is not a gas or a liquid.

Solution means any homogeneous liquid mixture of two or more chemical compounds or elements that will not undergo any segregation under conditions normal to transportation.

Specification packaging means a packaging conforming to one of the specifications or standards for packagings in part 178 or part 179 of this subchapter.

Spontaneously combustible material. See Sec. 173.124(b) of this subchapter.

State means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Virgin Islands, American Samoa, Guam, or any other territory or possession of the United States designated by the Secretary.

State-designated route means a preferred route selected in accordance with U.S. DOT ``Guidelines for Selecting Preferred Highway Routes for Highway Route Controlled Quantities of Radioactive Materials'' or an equivalent routing analysis which adequately considers overall risk to the public.

Stowage means the act of placing hazardous materials on board a vessel.

Strong outside container means the outermost enclosure which provides protection against the unintentional release of its contents under conditions normally incident to transportation.

Subsidiary hazard means a hazard of a material other than the primary hazard. (See primary hazard).

Table in Sec. 172.101 or Sec. 172.101 table means the Hazardous Materials Table in Sec. 172.101 of this subchapter.

Technical name means a recognized chemical name or microbiological name currently used in scientific and technical handbooks, journals, and texts. Generic descriptions are authorized for use as technical names provided they readily identify the general chemical group, or microbiological group. Examples of acceptable generic chemical descriptions are organic phosphate compounds, petroleum aliphatic hydrocarbons and tertiary amines. For proficiency testing only, generic microbiological descriptions such as bacteria, mycobacteria, fungus, and viral samples may be used. Except for names which appear in subpart B of part 172 of this subchapter, trade names may not be used as technical names.

TOFC means trailer-on-flat-car.

Top shell means the tank car tank surface, excluding the head ends and bottom shell of the tank car tank.

Trailership means a vessel, other than a carfloat, specifically equipped to carry motor transport vehicles and fitted with installed securing devices to tie down each vehicle. The term trailership includes Roll-on/Roll-off (RO/RO) vessels.

Train means one or more engines coupled with one or more rail cars, except during switching operations or where the operation is that of classifying and assembling rail cars within a railroad yard for the purpose of making or breaking up trains.

Trainship means a vessel other than a rail car ferry or carfloat, specifically equipped to transport railroad vehicles, and fitted with installed securing devices to tie down each vehicle.

Transport vehicle means a cargo-carrying vehicle such as an automobile, van, tractor, truck, semitrailer, tank car or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, rail car, etc.) is a separate transport vehicle.

UFC means Uniform Freight Classification.

UN means United Nations.

UN standard packaging means a packaging conforming to standards in the UN Recommendations on the Transport of Dangerous Goods.

Unit load device means any type of freight container, aircraft container,

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aircraft pallet with a net, or aircraft pallet with a net over an igloo.

United States means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Virgin Islands, American Samoa, Guam, or any other territory or possession of the United States designated by the Secretary.

Vessel includes every description of watercraft, used or capable of being used as a means of transportation on the water.

Viscous liquid means a liquid material which has a measured viscosity in excess of 2500 centistokes at 25 deg.C. (77 deg.F.) when determined in accordance with the procedures specified in ASTM Method D 445-72 ``Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity)'' or ASTM Method D 1200-70 ``Viscosity of Paints, Varnishes, and Lacquers by Ford Viscosity Cup.''

Volatility refers to the relative rate of evaporation of materials to assume the vapor state.

Water reactive material. See Sec. 173.124(c) of this subchapter.

Water resistant means having a degree of resistance to permeability by and damage caused by water in liquid form.

Wooden barrel means a packaging made of natural wood, of round cross-section, having convex walls, consisting of staves and heads and fitted with hoops.

W.T. means watertight.

[Amdt. 171-32, 41 FR 15994, Apr. 15, 1976]

Editorial Note: For Federal Register citations affecting Sec. 171.8, see the List of CFR Sections Affected appearing in the Finding Aids section of this volume.

Close this document to return to the training.