Boston University Environmental Health & Safety

P-Listed Hazardous Wastes

The Environmental Protection Agency (EPA) has identified a number of chemicals on the EPA "P-list" that present an especially acute hazard when disposed of as hazardous waste. Because of their acute hazards, there are more stringent requirements when disposing of these wastes:

►**Container size:** When collecting p-listed chemicals as waste, the volume of the hazardous waste container must not exceed one quart (approximately one liter).

►**Empty containers**: Empty containers that held p-listed chemicals must also be disposed of as hazardous waste. They are not allowed to be washed or re-used.

►**Contaminated materials**: Disposable materials that become contaminated with p-listed chemicals (e.g. gloves, weighing boats, etc.) must also be disposed of as hazardous waste. Non-disposable materials must be "triple-rinsed", or rinsed three times to remove the contamination. This rinsate must be collected as hazardous waste. Materials contaminated with p-listed chemicals may not be washed or re-used until they have been triple-rinsed.

Remember:

- **Label the waste as hazardous waste.** Just like all other hazardous wastes, p-listed wastes must be labeled with the words "hazardous waste", the complete chemical name, and the associated hazard characteristics (e.g., ignitable, corrosive, toxic, or reactive).

- **Use disposable materials whenever possible.** Triple-rising non-disposable material generates a lot of waste, which can be difficult to dispose of safely. Consider using disposable containers to prevent excess waste generation.

- **Collect contaminated materials in a plastic bag.** Gloves, weigh boats, paper towel, etc. that is contaminated with p-listed wastes can be collected in a closeable bag or other container labeled with an appropriate hazardous waste label. Be sure the volume of the container does not exceed one quart!

Most common p-listed wastes

Chemical	CAS number
Acrolein	107–02–8
Allyl alcohol	107–18–6
Arsenic compounds	Varies
Inorganic cyanide salts	Varies
Carbon disulfide	75-15-0
Cyanogen and Cyanogen Chloride	460-19-5, 506-77-4
2,4-Dinitrophenol	51–28–5
Epinephrine	51–43–4
Nitrous and Nitric oxides	10102-44-0, 10102-43-9
Osmium tetroxide	20816-12-0
Sodium azide	26628-22-8

Note: A complete list of P-listed wastes can be found on the reverse side of this handout.

If you have questions concerning the use of p-listed chemicals at Boston University, contact your laboratory's assigned Research Safety Specialist or Environmental Health & Safety.

Environmental Health & Safety
Charles River Campus: 353-4094
Medical Campus: 638-8830
Web: http://www.bu.edu/EHS

Complete list of “p-listed” chemicals

Also available on the web at http://www.bu.edu/ehs/programs/environmental/waste/p-list/

Acetaldehyde, chloro-
Acetamide, N-(aminothioxomethyl)-
Acetamide, 2-fluoro-
Acetic acid, fluoro-, sodium salt
1-Acetyl-2-thiourea
Acrolein
Aldicarb
Aldicarb sulfone.
Aldrin
Allyl alcohol
Aluminum phosphide (R,T)
5-(Aminomethyl)-3-isoxazolol
4-Aminopyridine
Ammonium picrate (R)
Ammonium vanadate
Argentate(1-), bis(cyano-C)-, potassium
Arsenic acid H3AsO4
Arsenic oxide As2O3
Arsenic oxide As2O5
Arsenic pentoxide
Arsenic trioxide
Arsine, diethyl-
Arsonous dichloride, phenyl-
Aziridine
Aziridine, 2-methyl-
Barium cyanide
Benzenamine, 4-chloro-
Benzenamine, 4-nitro-
Benzene, (chloromethyl)-
1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
Benzeneethanamine, alpha,alpha-dimethyl-
Benzenethiol
7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.
Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1).
2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
Benzyl chloride
Beryllium powder
Bromoacetone
Brucine
2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime
Calcium cyanide
Calcium cyanide Ca(CN)2Carbamic acid, [(dibutylamino)- thio]methyl-, 2,3-dihydro-2,2-dimethyl- 7-benzofuranyl ester.
Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl-1H- pyrazol-3-yl ester.
Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H- pyrazol-5-yl ester.
Carbamic acid, methyl-, 3-methylphenyl ester.
Carbofuran.
Carbon disulfide
Carbonic dichloride
Carbosulfan.
Chloroacetaldehyde
p-Chloroaniline
1-(o-Chlorophenyl)thiourea
3-Chloropropionitrile
Copper cyanide
Copper cyanide Cu(CN)
m-Cumenyl methylcarbamate.
Cyanides (soluble cyanide salts), not otherwise specified
Cyanogen
Cyanogen chloride
Cyanogen chloride (CN)Cl
2-Cyclohexyl-4,6-dinitrophenol
Dichloromethyl ether
Dichlorophenylarsine
Dieldrin
Diethylarsine
Diethyl-p-nitrophenyl phosphate
O,O-Diethyl O-pyrazinyl phosphorothioate
Diisopropylfluorophosphate (DFP)
1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,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-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites
Dimethoate
alpha,alpha-Dimethylphenethylamine
Dimetilan.
4,6-Dinitro-o-cresol, & salts
2,4-Dinitrophenol
Dinoseb
Diphosphoramide, octamethyl-
Diphosphoric acid, tetraethyl ester
Disulfoton
Dithiobiuret
1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O- [(methylamino)-carbonyl]oxime.
Endosulfan
Endothall
Endrin
Endrin, & metabolites
Epinephrine
Ethanedinitrile
Ethanimidothioic acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester.
Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester
Ethyl cyanide
Ethyleneimine
Famphur
Fluorine
Fluoroacetamide
Fluoroacetic acid, sodium salt
Formetanate hydrochloride.
Formparanate.
Fulminic acid, mercury(2+) salt (R,T)
Heptachlor
Hexaethyl tetraphosphate
Hydrazinecarbothioamide
Hydrazine, methyl-
Hydrocyanic acid
Hydrogen cyanide
Hydrogen phosphide
Isodrin
Isolan.
3-Isopropylphenyl N-methylcarbamate.
3(2H)-Isoxazolone, 5-(aminomethyl)-
Manganese, bis(dimethylcarbamodithioato-S,S′)-,
Manganese dimethyldithiocarbamate.
Mercury, (acetato-O)phenyl-
Mercury fulminate (R,T)
Methanamine, N-methyl-N-nitroso-
Methane, isocyanato-
Methane, oxybis[chloro-
Methane, tetranitro- (R)
Methanethiol, trichloro-
Methanimidamide, N,N-dimethyl-N′-[3-[[(methylamino)-carbonyl]oxy]phenyl]-, monohydrochloride.
Methanimidamide, N,N-dimethyl-N′-[2-methyl-4-[[(methylamino)carbonyl]oxy]phenyl]-
6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
Methiocarb.
Methomyl
Methyl hydrazine
Methyl isocyanate
2-Methyllactonitrile
Methyl parathion
Metolcarb.
Mexacarbate.
alpha-Naphthylthiourea
Nickel carbonyl
Nickel carbonyl $Ni(CO)_4$, (T-4)-
Nickel cyanide
Nickel cyanide $Ni(CN)_2$
Nicotine, & salts
Nitric oxide
p-Nitroaniline
Nitrogen dioxide
Nitrogen oxide NO
Nitrogen oxide NO_2
Nitroglycerine (R)
N-Nitrosodimethylamine
N-Nitrosomethylvinylamine
Octamethylpyrophosphoramide
Osmium oxide OsO_4, (T-4)-
Osmium tetroxide
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
Oxamyl.
Parathion
Phenol, 2-cyclohexyl-4,6-dinitro-
Phenol, 2,4-dinitro-
Phenol, 2-methyl-4,6-dinitro-, & salts
Phenol, 2-(1-methylpropyl)-4,6-dinitro-
Phenol, 2,4,6-trinitro-, ammonium salt (R)
Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester).
Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
Phenol, 3-(1-methylethyl)-, methyl carbamate.
Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate.
Phenylmercury acetate
Phenylthiourea
Phorate
Phosgene
Phosphine
Phosphoric acid, diethyl 4-nitrophenyl ester
Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
Phosphorofluoridic acid, bis(1-methylethyl) ester
Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
Physostigmine.
Physostigmine salicylate.
Plumbane, tetraethyl-
Potassium cyanide
Potassium cyanide K(CN)
Potassium silver cyanide
Promecarb
Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime.
Propanenitrile
Propanenitrile, 3-chloro-
Propanenitrile, 2-hydroxy-2-methyl-
1,2,3-Propanetriol, trinitrate (R)
2-Propanone, 1-bromo-
Propargyl alcohol
2-Propenal
2-Propen-1-ol
1,2-Propylenimine
2-Propyn-1-ol
4-Pyridinamine
Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-.
Selenious acid, dithallium(1+) salt
Selenourea
Silver cyanide
Silver cyanide Ag(CN)
Sodium azide
Sodium cyanide
Sodium cyanide Na(CN)
Strychnidin-10-one, & salts
Strychnidin-10-one, 2,3-dimethoxy-
Strychnine, & salts
Sulfuric acid, dithallium(1+) salt
Tetraethyldithiopyrophosphate
Tetraethyl lead
Tetraethyl pyrophosphate
Tetranitromethane (R)
Tetraphosphoric acid, hexaethyl ester
Thallic oxide
Thallium oxide Tl_2O_3
Thallium(I) selenite
Thallium(I) sulfate
Thiodiphosphoric acid, tetraethyl ester
Thiofanox
Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
Thiophenol
Thiosemicarbazide
Thiourea, (2-chlorophenyl)-
Thiourea, 1-naphthalenyl-
Thiourea, phenyl-
Tirpate.
Toxaphene
Trichloromethanethiol
Vanadic acid, ammonium salt
Vanadium oxide V_2O_5
Vanadium pentoxide
Vinylamine, N-methyl-N-nitroso-
Warfarin, & salts, when present at concentrations greater than 0.3%
Zinc, bis(dimethylcarbamodithioato-S,S′)-,
Zinc cyanide
Zinc cyanide $Zn(CN)_2$
Zinc phosphide Zn_3P_2, when present at concentrations greater than 10% (R,T)
Ziram.