

University of Pittsburgh Safety Manual	EH&S Guideline Number: 04-019	
Subject: DISPOSAL OF EMPTY CHEMICAL CONTAINERS	Effective Date: 10/11/2017 Review Date: 09/25/2023	Page 1 of 4

DISPOSAL OF EMPTY CHEMICAL CONTAINERS

Chemical containers which are not completely empty and still contain residual amounts of chemicals could potentially be classified as hazardous waste. Therefore, special considerations must be taken when disposing of containers. The following guidelines have been developed to ensure that empty chemical containers are disposed of properly.

1. Chemical containers must be completely emptied prior to disposal. Be sure that there is no residual material in the container.
2. If the original product container is in good condition, consider reusing the container to collect waste chemicals. The waste chemicals should be compatible with the container and the original contents of the container.
3. Consider the type of chemical that was in the container. **If the chemical is identified on the list of Acutely Hazardous Wastes (see below), the empty container should NOT be rinsed and MUST be disposed of through the Chemical Waste Program.**
4. If the chemical is NOT on the attached list of Acutely Hazardous Wastes, the container should be triple-rinsed with water or in some cases, a solvent capable of removing the original chemical. If the rinsing solvent is hazardous (e.g. acetone, methylene chloride), the rinsate must be collected and disposed through the Chemical Waste Program.
5. Once the interior of the container has been triple-rinsed, the container should be air-dried.
6. When the container (glass, metal or plastic) is dry, deface the original label with a permanent marker. Write "EMPTY" on the label. If the container is glass and the chemical is not on the Acutely Hazardous Waste list, it should be disposed of in a broken glass receptacle. Any empty, glass container or item does not need to be broken to be placed in a broken glass receptacle. If the empty container is metal or plastic and the chemical is not on the Acutely Hazardous Waste list, it should be disposed of in the regular trash.
7. If you are unable to remove any residual amount of chemical in the container, the container must be disposed of through the Chemical Waste Program.

Acutely Hazardous Wastes

The following chemicals are considered to be acutely hazardous wastes, and empty containers formerly containing these chemicals must be disposed of through the Chemical Waste Program.

- 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
- 5-(Aminomethyl)-3-isoxazolol
- 4-Aminopyridine
- Ammonium picrate
- Ammonium vanadate

- Argentate(1-), bis(cyano-C)-, potassium
- Arsenic acid
- Arsenic oxide
- 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]-
- Benzeneethanamine, alpha,alpha-dimethyl-
- Benzenethiol
- 7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate
- Benzoic acid, 2-hydroxy-, compnd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indo 1-5yl methyl carbamate 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
- Bromoacetone
- Brucine
- 2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino)carbonyl] oxime
- Calcium cyanide
- Carbamic 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
- Chloroacetaldehyde
- p-Chloroaniline
- 1-(o-Chlorophenyl)thiourea
- 3-Chloropropionitrile
- Copper cyanide
- M-Cumenyl methylcarbamate
- Cyanides (soluble cyanide salts), not otherwise specified
- Cyanogen
- Cyanogen chloride
- 2-Cyclohexyl-4,6-dinitrophenol
- Dichloromethyl ether
- Dichlorophenylarsine
- Dieldrin
- Diethylarsine
- Diethyl-p-nitrophenyl phosphate
- O,O-Diethyl O-pyrazinyl phosphorothioate
- Diisopropylfluorophosphate
- 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)-
- 1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-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
- Diphosphoramidate, octamethyl-
- Diphosphoric acid, tetraethyl ester

Subject:

**DISPOSAL OF EMPTY
CHEMICAL CONTAINERS**

Effective Date: 10/11/2017

Review Date: 09/25/2023

Page 3 of 4

- Disulfoton
- Dithiobiuret
- 1,3-Dithiolane-2-carboxaldehyde, 2, 4-dimethyl-O-[(methylamino)-carbonyl] oxime
- Endosulfan
- Endothall
- Endrin
- Endrin, & metabolites
- Epinephrine
- Ethanedinitrile
- Ethanimidothioic, 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
- Formentanate hydrochloride
- Formparanate
- Fulminic acid, mercury(2+) salt
- Heptachlor
- Hexaethyl tetraphosphate
- Hydrazinecarbothioamide
- Hydrazine, methyl-
- Hydrocyanic acid
- Hydrogen cyanide
- Hydrogen phosphide
- Isodrin
- 3(2H)-Isoxazolone, 5-(aminomethyl)-
- Manganese, bis(dimethylcarbamodithioato-S,S')-
- Manganese dimethyldithiocarbamate
- Mercury, (acetato-O)phenyl-
- Mercury fulminate
- Methanamine, N-methyl-N-nitroso-
- Methane, isocyanato-
- Methane, oxybis[chloro-
- Methane, tetranitro-
- 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]-, monohydrochloride
- 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,4,7,7atetrahydro-
- Methiocarb
- Methomyl
- Methyl hydrazine
- Methyl isocyanate
- 2-Methylactonitrile
- Methyl parathion
- Metolcarb
- Mexacarbate
- alpha-Naphthylthiourea
- Nickel carbonyl
- Nickel cyanide
- Nicotine, & salts
- Nitric oxide
- p-Nitroaniline
- Nitrogen dioxide
- Nitrogen oxide
- Nitroglycerine (R)
- N-Nitrosodimethylamine
- N-Nitrosomethylvinylamine
- Octamethylpyrophosphoramide
- Osmium oxide, (T-4)-
- Osmium tetroxide
- 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
- Oxamyl
- Parathion
- Phenol, 2-cyclohexyl-4,6-dinitro-
- Phenol, 4-(dimethylamino)-3,5-dimethyl-methylcarbamate (ester)
- Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
- Phenol, 2,4-dinitro-
- Phenol, 2-methyl-4,6-dinitro-, & salts
- Phenol, 3-(1-methylethyl)-, methyl carbamate
- Phenol, 3-methyl-5-(1-methylethyl)-methyl carbamate
- Phenol, 2-(1-methylpropyl)-4,6-dinitro-
- Phenol, 2,4,6-trinitro-, ammonium salt
- Phenylmercury acetate
- Phenylthiourea

Subject:

**DISPOSAL OF EMPTY
CHEMICAL CONTAINERS**

Effective Date: 10/11/2017

Review Date: 09/25/2023

Page 4 of 4

- 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 silver cyanide
- Promecarb
- Propanal, 2-methyl-w-(methyl-sulfonyl)-O-[(methylamino)carbonyl]oxime
- Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
- Propanenitrile
- Propanenitrile, 3-chloro-
- Propanenitrile, 2-hydroxy-2-methyl-
- 1,2,3-Propanetriol, trinitrate
- 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, 1,2,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-
- Selenious acid, dithallium(1+) salt
- Selenourea
- Silver cyanide
- Sodium azide
- Sodium cyanide
- Strychnidin-10-one, & salts
- Strychnidin-10-one, 2,3-dimethoxy-
- Strychnine, & salts
- Sulfuric acid, dithallium(1+) salt
- Tetraethyldithiopyrophosphate
- Tetraethyl lead
- Tetraethyl pyrophosphate
- Tetranitromethane
- Tetraphosphoric acid, hexaethyl ester
- Thallic oxide
- Thallium oxide
- Thallium(I) selenite
- Thallium(I) sulfate
- Thiodiphosphoric acid, tetraethyl ester
- Thiofanox
- Thioimidodicarbonic diamide
- Thiophenol
- Thiosemicarbazide
- Thiourea, (2-chlorophenyl)-
- Thiourea, 1-naphthalenyl-
- Thiourea, phenyl-
- Tirpate
- Toxaphene
- Trichloromethanethiol
- Vanadic acid, ammonium salt
- Vanadium oxide
- 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 phosphide, when present at concentrations greater than 10%
- Ziram