

<b>University of Pittsburgh Safety Manual</b>	<b>EH&amp;S Guideline Numer: 04-019</b>	
Subject: <b>DISPOSAL OF EMPTY CHEMICAL CONTAINERS</b>	Effective Date 3/1/08	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 attachment), 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 container has been triple-rinsed, the cap may be removed, and the container should be air-dried.
6. When the container is dry, deface the original label. Write "EMPTY" on the label. Ensure that the cap has been removed, and dispose of the container and cap in the general trash. 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 glass container or item does not need to be broken to be placed in a broken glass receptacle.
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

**Subject:  
DISPOSAL OF EMPTY CHEMICAL  
CONTAINERS**

Effective Date  
3/1/08

Page 2 of 4

- 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-[(dimethylamino)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-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,7a alpha)-, & metabolites
- Dimethoate
- alpha,alpha-Dimethylphenethylamine
- Dimetilan

**Subject:  
DISPOSAL OF EMPTY CHEMICAL  
CONTAINERS**

Effective Date  
3/1/08

Page 3 of 4

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| <ul style="list-style-type: none"> <li>• 4,6-Dinitro-o-cresol, &amp; salts</li> <li>• 2,4-Dinitrophenol</li> <li>• Dinoseb</li> <li>• Diphosphoramidate, octamethyl-</li> <li>• Diphosphoric acid, tetraethyl ester</li> <li>• Disulfoton</li> <li>• Dithiobiuret</li> <li>• 1,3-Dithiolane-2-carboxaldehyde, 2, 4-dimethyl-O-[(methylamino)-carbonyl] oxime</li> <li>• Endosulfan</li> <li>• Endothall</li> <li>• Endrin</li> <li>• Endrin, &amp; metabolites</li> <li>• Epinephrine</li> <li>• Ethanedinitrile</li> <li>• Ethanimidothioic,2-(dimethylamino)-N-[[[(methylamino)carbonyl]oxy]-2-oxo, methyl ester</li> <li>• Ethanimidothioic acid, N-[[[(methylamino)carbonyl]oxy]-, methyl ester</li> <li>• Ethyl cyanide</li> <li>• Ethyleneimine</li> <li>• Famphur</li> <li>• Fluorine</li> <li>• Fluoroacetamide</li> <li>• Fluoroacetic acid, sodium salt</li> <li>• Formentanate hydrochloride</li> <li>• Formparanate</li> <li>• Fulminic acid, mercury(2+) salt</li> <li>• Heptachlor</li> <li>• Hexaethyl tetraphosphate</li> <li>• Hydrazinecarbothioamide</li> <li>• Hydrazine, methyl-</li> <li>• Hydrocyanic acid</li> <li>• Hydrogen cyanide</li> </ul> | <ul style="list-style-type: none"> <li>• Hydrogen phosphide</li> <li>• Isodrin</li> <li>• 3(2H)-Isoxazolone, 5-(aminomethyl)-</li> <li>• Manganese, bis(dimethylcarbamo dithioato-S,S')-</li> <li>• Manganese dimethyldithiocarbamate</li> <li>• Mercury, (acetato-O)phenyl-</li> <li>• Mercury fulminate</li> <li>• Methanamine, N-methyl-N-nitroso-</li> <li>• Methane, isocyanato-</li> <li>• Methane, oxybis[chloro-</li> <li>• Methane, tetranitro-</li> <li>• Methanethiol, trichloro-</li> <li>• Methanimidamide, N,N-dimethyl-N-[-3-[[[(methylamino)carbonyl]oxy]phenyl]-, monohydrochloride</li> <li>• Methanimidamide, N,N-dimethyl-N'-2-methyl-4-[[[(methylamino)carbonyl]oxy]phenyl]-, monohydrochloride</li> <li>• 6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide</li> <li>• 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-</li> </ul> | <ul style="list-style-type: none"> <li>heptachloro-3a,4,7,7atetrahydro-</li> <li>• Methiocarb</li> <li>• Methomyl</li> <li>• Methyl hydrazine</li> <li>• Methyl isocyanate</li> <li>• 2-Methylactonitrile</li> <li>• Methyl parathion</li> <li>• Metolcarb</li> <li>• Mexacarbate</li> <li>• alpha-Naphthylthiourea</li> <li>• Nickel carbonyl</li> <li>• Nickel cyanide</li> <li>• Nicotine, &amp; salts</li> <li>• Nitric oxide</li> <li>• p-Nitroaniline</li> <li>• Nitrogen dioxide</li> <li>• Nitrogen oxide</li> <li>• Nitroglycerine (R)</li> <li>• N-Nitrosodimethylamine</li> <li>• N-Nitrosomethylvinylamine</li> <li>• Octamethylpyrophosphoramide</li> <li>• Osmium oxide, (T-4)-</li> <li>• Osmium tetroxide</li> <li>• 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid</li> <li>• Oxamyl</li> <li>• Parathion</li> <li>• Phenol, 2-cyclohexyl-4,6-dinitro-</li> <li>• Phenol, 4-(dimethylamino)-3,5-dimethylmethylcarbamate (ester)</li> <li>• Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate</li> <li>• Phenol, 2,4-dinitro-</li> <li>• Phenol, 2-methyl-4,6-dinitro-, &amp; salts</li> <li>• Phenol, 3-(1-methylethyl)-, methyl carbamate</li> </ul> |
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**Subject:  
DISPOSAL OF EMPTY CHEMICAL  
CONTAINERS**

Effective Date  
3/1/08

Page 4 of 4

- 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
- 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