

EMPTY CONTAINER DISPOSAL

(For assistance, please contact EHS at (402) 472-4925, or visit our web site at <http://ehs.unl.edu/>)

The following general guidelines pertain to the proper disposal of empty containers.

- With the exceptions noted below, the disposal of most containers is not regulated once they are empty. Generally, a container is considered 'empty' when all products in the container have been removed using practices commonly employed to remove material from that type of container (i.e., pouring, pumping, venting, scooping, etc.). A container that holds 3% or more of the original contents will be regulated the same as a full container with original contents for disposal purposes. Therefore, tag all containers that cannot be emptied to less than 3% for collection by EHS.
- Even if a container holds less than 3% of its original content, it may be prudent to tag the container for collection by EHS or further clean the container prior to disposal. For example, a well-drained bottle of 98% sulfuric acid may still contain enough acid to severely injure personnel and damage equipment. An 'empty' acetone container may still contain highly flammable vapors. Some 'empty' containers can contain solids in the form of salts resulting from mixtures in the bottle reacting with each other. These solids can be saturated with the original chemical, so these containers should also be tagged for collection by EHS.
 - With some exceptions (as discussed below), a container that holds water miscible residues should be rinsed clean prior to disposal and the rinsates discharged to the sanitary sewer (but only if the sanitary sewer discharges to a Publicly Owned Treatment Works). Interior building drains on City and East Campuses discharge to a POTW. Drains at outlying UNL locations/areas (i.e., Research and Extension Centers, farms, etc.) may not discharge to a POTW. Consult EHS if assistance is needed to determine whether a particular drain discharges to a POTW.
 - For information on disposal of empty paint cans, see the EHS SOP, ***Disposal of Office Items***.
 - Some residues, such as water-immiscible, viscous liquids, can be difficult to remove from a container. These containers should be tagged for collection by EHS.
 - Pesticide containers must be handled and disposed in accordance with label directions.
- Empty containers that once held any of the materials listed in the table at the end of this SOP must be triple rinsed prior to disposal as regular trash. The rinsates must

be used. They cannot be discharged to a drain. If rinsing and use of the rinsate is not feasible, tag the empty container for collection by EHS.

- Some empty containers can be reused. A container should be reused only if it will be used to contain materials with similar properties to the chemicals it originally contained. Containers that are reused should be washed thoroughly prior to use.
- Original labels on containers that are reused must be completely removed or defaced (unless it is reused for an identical product). The container needs to be relabeled to indicate the new contents, and dated (if the chemical can form peroxides).
- Empty glass containers cannot be placed in regular trash cans. If broken, the glass could severely cut someone. Glass containers should be placed in puncture resistant containers such as sturdy cardboard boxes or plastic buckets and labeled as “Sharps” prior to collection by Custodial Services or placement in dumpsters.
- Compressed gas cylinders and aerosol cans cannot be placed in the normal trash. Return compressed gas cylinders to the supplier. Tag aerosol cans and non-returnable compressed gas cylinders for collection by EHS. Refer also to the EHS SOP, **Aerosol Can Collection**.
- Containers larger than 5 gallons must have both the top and bottom removed prior to placing in the regular trash.

Chemicals Subject to the Container Triple Rinse and Rinsate Use Rule

Chemical Abstracts Service No.	Substance	Chemical Abstracts Service No.	Substance
107-20-0	Acetaldehyde, chloro-	1129-41-5	Metolcarb
591-08-2	Acetamide, N-(aminothioxomethyl)-	315-8-4	Mexacarbate
640-19-7	Acetamide, 2-fluoro-	86-88-4	alpha-Naphthylthiourea
62-74-8	Acetic acid, fluoro-, sodium salt	13463-39-3	Nickel carbonyl
591-08-2	1-Acetyl-2-thiourea	13463-39-3	Nickel carbonyl Ni(CO) ₄ , (T-4)-
107-02-8	Acrolein	557-19-7	Nickel cyanide
1646-88-4	Aldicarb sulfone	557-19-7	Nickel cynaide Ni(CN) ₂
116-06-3	Aldicarb	54-11-5	Nicotine, & salts
309-00-2	Aldrin	10102-43-9	Nitric oxide
107-18-6	Allyl alcohol	100-01-6	p-Nitroaniline
20859-73-8	Aluminum phosphide (R,T)	10102-44-0	Nitrogen dioxide
2763-96-4	5-(Aminomethyl)-3-isoxazolol	10102-43-9	Nitrogen oxide NO
504-24-5	4-Aminopyridine	10102-44-0	Nitrogen oxide NO ₂
131-74-8	Ammonium picrate (R)	55-63-0	Nitroglycerine (R)
7803-55-6	Ammonium vanadate	62-75-9	N-Nitrosodimethylamine
506-61-6	Argentate(1-), bis(cyano-C)-,potassium	4549-40-0	N-Nitrosomethylvinylamine
7778-39-4	Arsenic acid H ₃ AsO ₄	152-16-9	Octamethylpyrophosphoramide

(Created 6/03; Revised 9/07)

1327-53-3	Arsenic oxide As ₂ O ₃	20816-12-0	Osmium oxide OsO ₄ , (T-4)-
1303-28-2	Arsenic oxide As ₂ O ₅	20816-12-0	Osmium tetroxide
1303-28-2	Arsenic pentoxide	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
1327-53-3	Arsenic trioxide	23135-22-0	Oxamyl
692-42-2	Arsine, diethyl-	56-38-2	Parathion
696-28-6	Arsonous dichloride, phenyl-	131-89-5	Phenol, 2-cyclohexyl -4,6-dinitro-
151-56-4	Aziridine	51-28-5	Phenol, 2,4-dinitro-
75-55-8	Aziridine, 2-methyl-	534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
542-62-1	Barium cyanide	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
106-47-8	Benzenamine, 4-chloro-	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
100-01-6	Benzenamine, 4-nitro-	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
100-44-7	Benzene, (chloromethyl)-	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
51-43-4	1,2-Benzenediol, 4-[1-hydroxy- 2-(methylamino)ethyl]-,(R)	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
108-98-5	Benzenethiol	62-38-4	Phenylmercury acetate
1563-66-2	7-Benzofuranol,2,3-dihydro-2,2-dimethyl-, methylcarbamate	103-85-5	Phenylthiourea
57-64-7	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)	298-02-2	Phorate
81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%	75-44-5	Phosgene
100-44-7	Benzyl chloride	7803-51-2	Phosphine
7440-41-7	Beryllium powder	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
598-31-2	Bromoacetone	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
357-57-3	Brucine	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino]carbonyl] oxime	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
592-01-8	Calcium cyanide	55-91-4	Phosphorofluoric acid, bis(1-methylethyl) ester
592-01-8	Calcium cyanide Ca(CN) ₂	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
55285-14-8	Carbamic acid, [(dibutylamino)- thio]methyl-,2,3-dihydro-2,2-dimethyl-7- benzofuranyl ester	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl amino)carbonyl]- 5-methyl-1H- pyrazol-3-yl ester -	52-85-7	Phosphorothioic acid,[(dimethylamino) sulfonyl]phenyl] O,O-dimethyl ester
119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H- pyrazol-5-yl ester	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester	57-47-6	Physostigmine
1563-66-2	Carbofuran	57-64-7	Physostigmine salicylate
75-15-0	Carbon disulfide	78-00-2	Plumbane, tetraethyl-
75-44-5	Carbonic dichloride	151-50-8	Potassium cyanide
55285-14-8	Carbosulfan	151-50-8	Potassium cyanide K(CN)

(Created 6/03; Revised 9/07)

107-20-0	Chloroacetaldehyde	506-61-6	Potassium silver cyanide
106-47-8	p-Chloroaniline	2631-37-0	Promecarb
5344-82-1	1-(o-Chlorophenyl)thiourea	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
542-76-7	3-Chloropropionitrile	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime
544-92-3	Copper cyanide	107-12-0	Propanenitrile
544-92-3	Copper cyanide Cu(CN)	542-76-7	Propanenitrile, 3-chloro-
64-00-6	m-Cumenyl methylcarbamate	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
-----	Cyanides (soluble cyanide salts), not otherwise specified	55-63-0	1,2,3-Propanetriol, trinitrate (R)
460-19-5	Cyanogen	598-31-2	2-Propanone, 1-bromo-
506-77-4	Cyanogen chloride	107-19-7	Propargyl alcohol
506-77-4	Cyanogen chloride (CN)Cl	107-02-8	2-Propenal
131-89-5	2-Cyclohexyl-4,6-dinitrophenol	107-18-6	2-Propen-1-ol
542-88-1	Dichloromethyl ether	75-55-8	1,2-Propylenimine
696-28-6	Dichlorophenylarsine	107-19-7	2-Propyn-1-ol
60-57-1	Dieldrin	04-24-5	4-Pyridinamine
692-42-2	Diethylarsine	54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
311-45-5	Diethyl-p-nitrophenyl phosphate	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-
297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate	12039-52-0	Selenious acid, dithallium(1+) salt
55-91-4	Diisopropylfluorophosphate (DFP)	630-10-4	Selenourea
309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-8alph-a,8ab-eta)- hexa hydro-, (1alp-ha,4a-lpha,-4abet-a,5al-pha,	506-64-9	Silver cyanide
465-73-6	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)-	506-64-9	Silver cyanide Ag(CN)
60-57-1	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)-	26628-22-8	Sodium azide
72-20-8	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	143-33-9	Sodium cyanide
60-51-5	Dimethoate	143-33-9	Sodium cyanide Na(CN)
122-09-8	alpha,alpha-Dimethylphenethylamine	57-24-9	Strychnidin-10-one, & salts
644-64-4	Dimetilan	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
534-52-1	4,6-Dinitro-o-cresol, & salts	57-24-9	Strychnine, & salts
51-28-5	2,4-Dinitrophenol	7446-18-6	Sulfuric acid, dithallium(1+) salt
88-85-7	Dinoseb	3689-24-5	Tetraethyldithiopyrophosphate
152-16-9	Diphosphoramidate, octamethyl-	78-00-2	Tetraethyl lead
107-49-3	Diphosphoric acid, tetraethyl ester	107-49-3	Tetraethyl pyrophosphate
298-04-4	Disulfoton	509-14-8	Tetranitromethane (R)
541-53-7	Dithiobiuret	757-58-4	Tetraphosphoric acid, hexaethyl ester
26419-73-8	1,3-Dithiolane-2-carboxaldehyde,2,4- dimethyl-, O-[(methylamino)-carbonyl]oxime	1314-32-5	Thallic oxide
115-29-7	Endosulfan	1314-32-5	Thallium oxide Tl2O3

(Created 6/03; Revised 9/07)

145-73-3	Endothall	12039-52-0	Thallium(I) selenite
72-20-8	Endrin	7446-18-6	Thallium(I) sulfate
72-20-8	Endrin, & metabolites	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
51-43-4	Epinephrine	39196-18-4	Thiofanox
460-19-5	Ethanedinitrile	541-53-7	Thioimidodicarbonic diamide [(H2N)C(S)]2NH
23135-22-0	Ethanimidothioc acid, 2-(dimethylamino)- N-[[[(methylamino)-carbonyl]oxy]-2-oxo-, methyl ester	108-98-5	Thiophenol
16752-77-5	Ethanimidothioic acid, N-[[[(methylamino) carbonyl]oxy]-, methyl ester	79-19-6	Thiosemicarbazide
107-12-0	Ethyl cyanide	5344-82-1	Thiourea, (2-chlorophenyl)-
151-56-4	Ethyleneimine	86-88-4	Thiourea, 1-naphthalenyl-
52-85-7	Famphur	103-85-5	Thiourea, phenyl-
7782-41-4	Fluorine	26419-73-8	Tirpate
640-19-7	Fluoroacetamide	8001-35-2	Toxaphene
62-74-8	Fluoroacetic acid, sodium salt	75-70-7	Trichloromethanethiol
23422-53-9	Formetate hydrochloride	7803-55-6	Vanadic acid, ammonium salt
17702-57-7	Formparanate	1314-62-1	Vanadium oxide V2O5
628-86-4	Fulminic acid, mercury(2+) salt (R,T)	1314-62-1	Vanadium pentoxide
76-44-8	Heptachlor	4549-40-0	Vinylamine, N-methyl-N-nitroso-
757-58-4	Hexaethyl tetraphosphate	81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
79-19-6	Hydrazinecarbothioamide	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-
60-34-4	Hydrazine, methyl-	557-21-1	Zinc cyanide
74-90-8	Hydrocyanic acid	557-21-1	Zinc cyanide Zn(CN)2
74-90-8	Hydrogen Cynaide	1314-84-7	Zinc phosphide Zn3P2, when present at concentrations greater than 10% (R,T)
7803-51-2	Hydrogen phosphide	137-30-4	Ziram
65-73-6	Isodrin	1129-41-5	Metolcarb
119-38-0	Isolan	315-8-4	Mexacarbate
64-00-6	3-Isopropylphenyl N-methylcarbamate	86-88-4	alpha-Naphthylthiourea
2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-	13463-39-3	Nickel carbonyl
15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-,	13463-39-3	Nickel carbonyl Ni(CO)4, (T-4)-
15339-36-3	Manganese dimethyldithiocarbamate	557-19-7	Nickel cyanide
62-38-4	Mercury, (acetato-O)phenyl-	557-19-7	Nickel cynaide Ni(CN)2
628-86-4	Mercury fulminate (R,T)	54-11-5	Nicotine, & salts
62-75-9	Methanamine, N-methyl-N-nitroso-	10102-43-9	Nitric oxide
624-83-9	Methane, isocyanato-	100-01-6	p-Nitroaniline
542-88-1	Methane, oxybis[chloro-	10102-44-0	Nitrogen dioxide
509-14-8	Methane, tetranitro- (R)	10102-43-9	Nitrogen oxide NO
75-70-7	Methanethiol, trichloro-	10102-44-0	Nitrogen oxide NO2
23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[[(methylamino)-carbonyl]oxy]phenyl]-, monohydrochloride	55-63-0	Nitroglycerine (R)
17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylamino)carbonyl]oxy]phenyl]-	62-75-9	N-Nitrosodimethylamine
115-29-7	6,9-Methano- 2,4,3-benzodioxathiepin, 6,7,8,9,10,10- hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide	4549-40-0	N-Nitrosomethylvinylamine

(Created 6/03; Revised 9/07)

76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	152-16-9	Octamethylpyrophosphoramidate
2032-65-7	Methiocarb	20816-12-0	Osmium oxide OsO ₄ , (T-4)-
16752-77-5	Methomyl	20816-12-0	Osmium tetroxide
60-34-4	Methyl hydrazine	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
624-83-9	Methyl isocyanate	23135-22-0	Oxamyl
75-86-5	2-Methylacetonitrile	56-38-2	Parathion
298-00-0	Methyl parathion	131-89-5	Phenol, 2-cyclohexyl -4,6-dinitro-