SOP BIO-001 LAB GLASSWARE USE AND DISPOSAL

SCOPE

The procedures described in this policy refer to the disposal of lab glassware, used and empty glass and broken glass that is produced during work in the laboratory.

This policy **does not apply** to any glassware that has been previously contaminated with:

1. Biohazardous Materials;
   a. **Acutely Hazardous Substances** are “P-List” and “U-List” chemicals (listed in the Chemical Hygiene Plan pages 31-45) and Code **F027** substances (chlorphenol and tri-, tetra-, and penta- derivatives). The glass contaminated with those chemicals should be disposed as Hazardous Waste Materials.

DEFINITIONS

**Lab glassware** is any item that could puncture regular trash bags and potentially cause injuries to someone handling the trash bag. It also means any intact glassware that could potentially break during waste handling activities.

The following items are considered Lab Glassware under this policy:

- Glass pipettes used or broken
- Glass Pasteur pipettes
- Empty glass bottles
- Flasks and beakers
- Vials and test tubes
- Empty broken glassware
DISPOSAL

All glassware and/or broken glass must be disposed in cardboard boxes lined with a clear plastic bag similar to those in the pictures below:

- The boxes should be used until ¾ full;
- Use tongs or a brush and dustpan to handle broken glass;
- Call EEM-EHS at 4-2618 for full container pick up or request new supplies.
IMPORTANT: Never dispose of the following items in these boxes:

- Any glassware used previously with biohazardous or infectious materials of any kind;
- Glassware (bottles, pipettes, etc.) used previously with Acutely Hazardous Substances;
- Liquid waste (any amount);
- Sharps (needles, syringes, blades, lancets, scalpels);
- Plastic petri dishes or culture plates;
- Plastic vials and conical tubes;
- Regular Trash.

For any questions on glass disposal and/or biosafety issues, “P-List”, “U-List” or Code_F027 chemicals, contact EEM-EHS at biosafety@uml.edu or Ext. 4-2618.

ADDENDUM TO POLICY AND PROCEDURES FOR GLASS DISPOSAL
LIST OF ACUTELY HAZARDOUS SUBSTANCE OR “P-LIST” CHEMICALS

The following list of Acutely Hazardous Substances is known as “P-List” chemicals (listed in the Chemical Hygiene Plan pages 31-45). Any glass or material contaminated with any of the following chemical substances should be disposed as Hazardous Waste Materials.

**DO NOT** dispose glass contaminated with any of these “P-List” substances in the regular glass disposal cardboard box.

The current list of “P-List” Hazardous Substances may be found on the EPA Website\(^1\). The current regulations for Hazardous Waste in Massachusetts may be found on the Energy and Environmental Affairs Website\(^2\).

<table>
<thead>
<tr>
<th>P###</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>P026</td>
<td>1-(o-Chlorophenyl)thiourea</td>
</tr>
<tr>
<td>P081</td>
<td>1,2,3-Propanetriol, trinitrate (R)</td>
</tr>
<tr>
<td>P042</td>
<td>1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-</td>
</tr>
<tr>
<td>P067</td>
<td>1,2-Propylenimine</td>
</tr>
<tr>
<td>P185</td>
<td>1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O- [[(methylamino)- carbonyl]oxime</td>
</tr>
<tr>
<td>P004</td>
<td>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)</td>
</tr>
<tr>
<td>P060</td>
<td>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)-</td>
</tr>
<tr>
<td>P002</td>
<td>1-Acetyl-2-thiourea</td>
</tr>
<tr>
<td>P048</td>
<td>2,4-Dinitrophenol</td>
</tr>
<tr>
<td>P051</td>
<td>2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9 -hexachloro- 1a,2,2a,3,6,6a,7,7aoctahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7 beta, 7aalpha)-, &amp; metabolites</td>
</tr>
<tr>
<td>P037</td>
<td>2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9- hexachloro- 1a,2,2a,3,6,6a,7,7aoctahydro-, (1aalpha,2beta,2alpha,3beta,6beta,6alpha,7 beta, 7aalpha)-</td>
</tr>
<tr>
<td>P045</td>
<td>2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino]carbonyl] oxime</td>
</tr>
<tr>
<td>P034</td>
<td>2-Cyclohexyl-4,6-dinitrophenol</td>
</tr>
<tr>
<td>P001</td>
<td>2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1- phenylbutyl)-, &amp; salts, when present at concentrations greater than 0.3%</td>
</tr>
<tr>
<td>P069</td>
<td>2-Methylactonitrile</td>
</tr>
<tr>
<td>P017</td>
<td>2-Propanone, 1-bromo-</td>
</tr>
<tr>
<td>P005</td>
<td>2-Propen-1-ol</td>
</tr>
<tr>
<td>P003</td>
<td>2-Propenal</td>
</tr>
<tr>
<td>P102</td>
<td>2-Propyn-1-ol</td>
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</tbody>
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\(^1\) [http://www.epa.gov/osw/hazard/wastetypes/listed.htm](http://www.epa.gov/osw/hazard/wastetypes/listed.htm)  
\(^2\) [http://www.mass.gov/eea/agencies/massdep/recycle/regulations/310-cmr-30-000.html](http://www.mass.gov/eea/agencies/massdep/recycle/regulations/310-cmr-30-000.html)
3(2H)-Isoxazolone, 5-(aminomethyl)-
3-Chloropropionitrile
4,6-Dinitro-o-cresol, & salts
4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-
Aminopyridine
Pyridinamine
5-(Aminomethyl)-3-isoxazolol
6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10- hexachloro-1,5,5a,6,9,9a-
hexahydro-, 3-oxide
7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
Acetaldehyde, chloro-
Acetamide, 2-fluoro-
Acetamide, N-(aminothioxomethyl)-
Acetic acid, fluoro-, sodium salt
Acrolein
Aldicarb
Aldicarb sulfone
Aldrin
Allyl alcohol
alpha,alpha-Dimethylphenethylamine
alpha-Naphthylthiourea
Aluminum phosphide (R,T)
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-
Arsinous dichloride, phenyl-
Aziridine
Aziridine, 2-methyl-
Barium cyanide
Benzenamine, 4-chloro-
Benzenamine, 4-nitro-
Benzene, (chloromethyl)-
Benzeneethanamine, alpha,alpha-dimethyl-
Benzenethiol
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)
Benzyl chloride
Beryllium powder
Bromoacetone
Brucine
Calcium cyanide Ca(CN)2
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
Carbosulfan
Chloroacetaldehyde
Copper cyanide
Copper cyanide Cu(CN)
Cyanides (soluble cyanide salts), not otherwise specified
Cyanogen
Cyanogen chloride
Cyanogen chloride (CN)Cl
Dichloromethyl ether
Dichlorophenylarsine
Diethylarsine
Diethyl-p-nitrophenyl phosphate
Diisopropylfluorophosphate (DFP)
Dimethoate
Dimetilan
Dinoseb
Diphosphoramide, octamethyl-
Diphosphoric acid, tetraethyl ester
Disulfoton
Dithiobiuret
Endosulfan
Endothall
Endrin
Endrin & metabolites
Epinephrine
Ethanedinitrile
Ethanimidothioc acid, 2-(dimethylamino)-N- [[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester
Ethanimidothioc acid, N-[[methylamino]carbonyl]oxy-, methyl ester
Ethyl cyanide
Ethyleneimine
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<thead>
<tr>
<th>Code</th>
<th>Name</th>
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<tbody>
<tr>
<td>P097</td>
<td>Famphur</td>
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<tr>
<td>P056</td>
<td>Fluorine</td>
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<td>P057</td>
<td>Fluoroacetamide</td>
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<td>P058</td>
<td>Fluoroacetic acid, sodium salt</td>
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<td>P198</td>
<td>Formetanate hydrochloride</td>
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<td>P197</td>
<td>Formparanate</td>
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<tr>
<td>P065</td>
<td>Fulminic acid, mercury(2+) salt (R,T)</td>
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<tr>
<td>P059</td>
<td>Heptachlor</td>
</tr>
<tr>
<td>P062</td>
<td>Hexaethyl tetraphosphate</td>
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<td>P068</td>
<td>Hydrazine, methyl-</td>
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<td>P116</td>
<td>Hydrazinecarbothioamide</td>
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<tr>
<td>P063</td>
<td>Hydrocyanic acid</td>
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<tr>
<td>P063</td>
<td>Hydrogen cyanide</td>
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<td>P096</td>
<td>Hydrogen phosphide</td>
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<td>P060</td>
<td>Isodrin</td>
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<td>P192</td>
<td>Isolan</td>
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<td>P196</td>
<td>Manganese dimethyldithiocarbamate</td>
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<td>P196</td>
<td>Manganese, bis(dimethylcarbamodithioato-S,S')-</td>
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<tr>
<td>P202</td>
<td>m-Cumenyl methylcarbamate</td>
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<td>P065</td>
<td>Mercury fulminate (R,T)</td>
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<td>P092</td>
<td>Mercury, (acetato-O)phenyl-</td>
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<tr>
<td>P082</td>
<td>Methanamine, N-methyl-N-nitroso-</td>
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<tr>
<td>P064</td>
<td>Methane, isocyanato-</td>
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<tr>
<td>P016</td>
<td>Methane, oxybis[chloro-</td>
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<tr>
<td>P112</td>
<td>Methane, tetranitro- (R)</td>
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<td>P118</td>
<td>Methanethiol, trichloro-</td>
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<tr>
<td>P198</td>
<td>Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylamino) carbonyl]oxy]phenyl]-</td>
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<tr>
<td>P199</td>
<td>Methiocarb</td>
</tr>
<tr>
<td>P066</td>
<td>Methomyl</td>
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<td>P068</td>
<td>Methyl hydrazine</td>
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<td>P064</td>
<td>Methyl isocyanate</td>
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<td>P071</td>
<td>Methyl parathion</td>
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<td>P190</td>
<td>Metolcarb</td>
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<td>P128</td>
<td>Mexacarbate</td>
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<tr>
<td>P073</td>
<td>Nickel carbonyl</td>
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<td>P073</td>
<td>Nickel carbonyl Ni (CO)4, (T-4)-</td>
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<tr>
<td>P074</td>
<td>Nickel cyanide</td>
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<td>P074</td>
<td>Nickel cyanide Ni(CN)2</td>
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<tr>
<td>P075</td>
<td>Nicotine &amp; salts</td>
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<td>P076</td>
<td>Nitric oxide</td>
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<td>Nitrogen dioxide</td>
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<td>P078</td>
<td>Nitrogen oxide NO</td>
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<td>P078</td>
<td>Nitrogen oxide NO2</td>
</tr>
<tr>
<td>P081</td>
<td>Nitroglycerine (R)</td>
</tr>
</tbody>
</table>
P082  N-Nitrosodimethylamine
P084  N-Nitrosomethylvinylamine
P040  O,O-Diethyl O-pyrazinyl phosphorothioate
P085  Octamethylpyrophosphoramide
P087  Osmium oxide OsO4, (T-4)-
P087  Osmium tetroxide
P194  Oxamyl
P089  Parathion
P024  p-Chloroaniline
P199  Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P020  Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009  Phenol, 2,4,6-trinitro-, ammonium salt (R)
P048  Phenol, 2,4-dinitro-
P034  Phenol, 2-cyclohexyl-4,6-dinitro-
P047  Phenol, 2-methyl-4,6-dinitro-, & salts
P202  Phenol, 3-(1-methylethyl)-, methyl carbamate
P201  Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P128  Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P092  Phenylmercury acetate
P093  Phenylthiourea
P094  Phorate
P095  Phosgene
P096  Phosphine
P041  Phosphoric acid, diethyl 4-nitrophenyl ester
P094  Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P039  Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P044  Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
P043  Phosphorofluoridic acid, bis(1-methylethyl) ester
P071  Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P089  Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040  Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester 3
P097  Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P204  Physostigmine
P188  Physostigmine salicylate
P110  Plumbane, tetraethyl-
P077  p-Nitroaniline
P098  Potassium cyanide
P098  Potassium cyanide K(CN)
P099  Potassium silver cyanide
P201  Promecarb
P203  Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime
P070  Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P101  Propanenitrile
P069  Propanenitrile, 2-hydroxy-2-methyl-
Propanenitrile, 3-chloro-
Propargyl alcohol
Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
Pyrollo[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
Tetraethyl lead
Tetraethyl pyrophosphate
Tetraethylthiopyrophosphate
Tetranitromethane (R)
Tetraphosphoric acid, hexaethyl ester
Thallium oxide Thallium oxide Tl2O3
Thallium(I) selenite
Thallium(I) sulfate
Thiodiphosphoric acid, tetraethyl ester
Thiofanox
Thioimidodicarbonic diamide [(H2N)C(S)]2NH
Thiophenol
Thiosemicarbazide
Thiourea, (2-chlorophenyl)-
Thiourea, 1-naphthalenyl-
Thiourea, phenyl-
Tirpate
Toxaphene
Trichloromethanethiol
Vanadic acid, ammonium salt
Vanadium oxide V2O5
Vanadium pentoxide
Vinylamine, N-Methyl-N-nitroso-
Warfarin, & salts, when present at concentrations greater than 0.3%
Zinc cyanide
Zinc cyanide Zn(CN)2
Zinc phosphide Zn3P2, when present at concentrations greater than 10% (R,T)
P205  Zinc, bis(dimethylcarbamodithioato-S,S')-

For any questions on biosafety issues, “P-List”, “U-List” or Code_F027 chemicals, contact EEM-EHS at biosafety@uml.edu or Ext. 4-2618.