Recommendations Regarding Temporary Containment of Chemical Waste in Laboratories

1. Assessment

- The Fall 2007 Annual Laboratory Inspections resulted in 11 violations for open containers of chemicals/chemical waste. EH&S determined that funnels with plastic ball closure devices are not appropriate provided the possibility of a chemical spill. A survey of laboratory waste storage in late November also revealed that several laboratories failed to keep chemical waste bottles capped and in secondary containment vessels.

2. Recommendation

- The introduction of secondary containment vessels and waste funnels with lids into laboratories is recommended as well as the replacement of funnels with plastic ball closure devices by lidded funnels in the stockroom.
- For example, 4” ECO-Funnels manufactured by CP Lab Safety (www.ecofunnels.com) which feature latched lids can be used. The online retail price per funnel is $101.
  - ECO-Funnels are recommended by Occupational Health & Safety at the University of Delaware
- Alternatively, use 4L Nalgene Safety Waste Systems sold by Fisher Scientific and purchased for $58.27. The online retail value of the 4L system is $78.75 (10L, $113). One gallon waste containers were purchased for $20.16 per container. The online retail value of a one gallon (3.9L) secondary waste container is $26.50 (5.5L is $29.50)
4" ECO Funnel with 100mm Screw Cap

Quantity in Basket: none
Code: EF-4-3009
Price: $101.00
Shipping Weight: 5.00 pounds

California Pacific Lab Safety recommends adding one vent filter for every one to two HPLC lines attached to an ECO Funnel. The vent filters act as pressure relief valves and will minimize the air pressure that may build up inside the ECO Funnel. If pressure builds up, solvent will escape. At atmospheric pressure we do not expect much evaporation due to the semi-permeable membrane made of glass microfiber.

Option: HPLC Waste Adapter:
To order HPLC attached to this ECO Funnel, please click here after adding one to your basket:
* To learn more about HPLC click here:

Quantity: 1
Add To Basket

EF-4-3009 is a 4" diameter 450mL fluid capacity funnel with a 100mm screw cap. The funnel is made of HDPE and has an easy use lid, gasket, positive latch, filter, and an 11" stem to effectively reduce chemical evaporation of hazardous solvents in the lab.

**SPECIFICATIONS:**
- Closure Size: 100mm
- Funnel Top OD: 4"
- Funnel Stem Length: 11"
- Recommended Container: EC-2009
- Material: HDPE

* Measured from bottom of closure skirt

For your convenience, we can customize your funnel with an HPLC fitting (1/16", 1/8", 1/4").

**Related Item(s):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC-2009</td>
<td>ECO Container, 9 L rectangular carboy,HDPE</td>
<td>$69.50</td>
</tr>
<tr>
<td>EF-4-3009-Sys NEW - - 4&quot; ECO Funnel w/System</td>
<td>$149.00</td>
<td></td>
</tr>
</tbody>
</table>

Add One to Basket
Nalgene® Safety Waste Systems

For temporary waste containment on the bench or under a hood.

System consists of a chemical- and break-resistant 11/8 gal. (4L) HDPE or 25/8 gal. (10L) fluorinated HDPE container, removable funnel with lid, closure/funnel adapter, filter, and screen insert.

10-437-36, 10-437-35

For security reasons you will be automatically logged out after 30 minutes of inactivity.

Click in the table below to view accessories.

<table>
<thead>
<tr>
<th>Items</th>
<th>Details</th>
<th>Images</th>
</tr>
</thead>
</table>

Description

- Large-diameter funnel has attached cover with Easy-Snap safety latch to minimize accidental spills and volatile emissions
- Funnel easily unscrews from polypropylene closure/funnel adapter for cleaning and quicker access
- Closure/adapter includes vent with polypropylene/PTFE vent plug that releases pressure during pouring, and prevents emissions during use; adapter can also connect to external syringe filter
- Removable polypropylene screen insert fits at bottom of funnel to trap large particles
- Resist common lab solvents, acids, and bases; not resistant to long-term UV light exposure

Specifications & Ordering Information:
Secondary containers (sold separately) should be used with Safety Waste Systems during transport, transfer or storage.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Closure Size</th>
<th>Funnel Top Dia. x Stem L</th>
<th>Container Material</th>
<th>Mfr. No.</th>
<th>Cat. No.</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/8 gal. (4L)</td>
<td>38-430</td>
<td>51/2 x 71/8 in. (14 x 18cm)</td>
<td>HDPE</td>
<td>6379-0004</td>
<td>10-437-35</td>
<td>Case of 1 for $78.75</td>
<td></td>
</tr>
<tr>
<td>25/8 gal. (10L)</td>
<td>83B</td>
<td>10 x 105/8 in. (25 x 27cm)</td>
<td>FLPE</td>
<td>6379-0010</td>
<td>10-437-36</td>
<td>Case of 1 for $113.00</td>
<td></td>
</tr>
</tbody>
</table>

Add Items to Cart

Note: These systems are not safety cans as defined by OSHA guidelines and are designed for temporary waste disposal only. Waste should be disposed of prior to 90 days of initial waste accumulation.

*With molded-in handles for transportation.*
Nalge® Safety Waste System Secondary Containers

Recommended for use with Safety Waste Systems. Waste container and funnel fit securely inside secondary container. Designed to contain contents in case of a spill during transport, use or storage.

15-353-4 Series

<table>
<thead>
<tr>
<th>Items</th>
<th>Details</th>
<th>Images</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>Outside Dia. x H</td>
<td>Mfr. No.</td>
</tr>
<tr>
<td>1.0 gal. (3.9L)</td>
<td>61/2 x 9 in. (17 x 23cm)</td>
<td>6377 0002</td>
</tr>
<tr>
<td>1.45 gal. (5.5L)</td>
<td>71/4 x 93/4 in. (18 x 25cm)</td>
<td>6377 0004</td>
</tr>
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</table>

Add Items to Cart
Secondary containment for the storage of chemicals in research laboratories and the undergraduate stockroom in the Chevron Science Center.

Require one of the following secondary containments for all common chemicals in laboratories:

Suggested containers

Usplastic.com:
http://www.usplastic.com/catalog/product.asp?catalog%5Fname=usplastic&category%5Fname=29164&product%5Fid=3331

Chemical resistant storage boxes
7 7/8 x 12 ¼ x 5 ¼ (w x d x h): $4.60 ea
13 x 15 ¼ x 7 1/8 (w x d x h): $12.76 ea
10 7/8" x 11" x 5" Clear Bins (w x d x h): $ 5.42 ea
(Qty 24: 5% off; Qty 48: 10% off; Qty 144: 15% off)

VWR:

Storage containers, polyethylene, Rubbermaid
18 x 12 x 3 ½ (w x d x h): $14.20
cat. # 62660

typical cabinet would hold 12 of these.

Fisher:
Cat# 03-484-20
Rubbermaid* Square Space-Saving Containers
8-3/4 x 8-5/16 x 2-11/16 in.: $6.69