

## Assembling the In-Line Waste Collection System

### Standard Operating Procedure

Revision Date: 06/22/18

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State and Federal regulations require that all containers holding hazardous waste be closed except when it is necessary to add or remove waste. The regulations also apply to “In-line” waste, which is a process where chemical waste flows through tubing from a machine into a collection container. Typically, High Performance Liquid Chromatography (HPLC) and Inductively Coupled Plasma (ICP) instruments generate waste in this manner.

### Example: Compliant In-Line Waste Collection System

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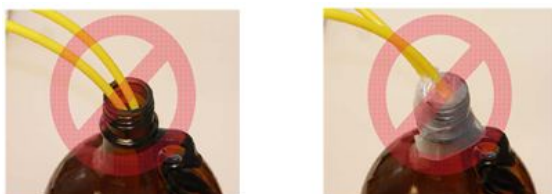
Containers used to collect in-line waste **must** be closed as shown in the following example. The tubing from the machine fits into a specially designed cap that meets closed container requirements.



### Examples: Non-compliant In-Line Waste Collection Systems

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The following pictures are two examples of non-compliant in-line waste assemblies:



*Non-compliant in-line waste assemblies*

The following practices do **not** meet the regulatory definition of a closed container:

- Inserting waste lines into an open bottle top (a missing cap)
- Sealing a container with parafilm
- Drilling holes through an original cap and inserting waste lines through the cap

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## About the In-Line Waste Collection System

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The in-line waste collection system:

- Meets the regulatory requirements for a closed container
- Seals the container to reduce vapor emissions
- Incorporates a check valve to prevent over pressurization of the container
- Is constructed of chemically resistant materials
- Is compatible with the solvent bottles commonly found in labs
- Is capable of collecting waste through three ports
- Can accommodate additional waste lines using another waste bottle and in-line waste collection system
- Is designed to accept hard wall 1/8 inch tubing and Luer connections

## Supplies Available through Hazardous Materials Management

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Hazardous Materials Management provides the following supplies. To order these supplies, call (734) 763-4568 or complete the online [Waste and Supply Request](#) form.

- In-line waste collection system kits:
  - Cap with check valve attached
  - Tubing adaptors (assorted sizes)
  - Luer plugs
  - Instructions
- Additional tubing adaptors
- A pail to use as a spill containment device.

## Procedure: Assembling the In-Line Waste Collection System

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1. Affix the hazardous waste label on the bottle.
2. In the in-line waste cap Luer port, insert the tubing. If using:

IF USING...	THEN...
1/8 inch hard-walled tubing	Starting from the top of the cap, insert the end of the 1/8 inch hard-walled tubing through an unused Luer port.
Other type of tubing	Insert the tubing onto the barb connection of the tubing adapter. Then insert the tubing adapter into the top of the cap.

3. Plug all unused Luer ports by inserting Luer plugs into the unused ports.
4. Place the in-line cap on the bottle and twist the blue part of the cap clockwise.
5. Place the waste container in a secondary container to contain spills.

**NOTE:** The waste label **must** be visible when in the secondary container. If the waste label is **not** visible, then affix an additional completed waste label to the secondary container.