

NEMS Guidance Protocol: Solvent Bulk Collection & Labeling

Document ID: NEMS-SOP-2026-04

Effective Date: July 13, 2026

Applicability: All NIH Laboratories, Leased Satellite Facilities (Twinbrook, Rockville, Gaithersburg), and Housekeeping/Waste Contractors.

Classification Matrix:

Solvent Type	Definition & Common NIH Examples	Primary Regulatory Hazard
Halogenated	Solvents containing chlorine, bromine, fluorine, or iodine. <i>Examples: Methylene chloride, chloroform, trichloroethylene.</i>	Toxic, Carcinogenic, strictly regulated EPA F-listed waste.
Non-Halogenated	Hydrocarbon-based solvents, lacking halogens. <i>Examples: Acetone, ethanol, methanol, xylene, acetonitrile.</i>	Highly Flammable, Ignitable (Flashpoint < 140°F).

Bulk Collection & Containment Standards:

To optimize waste streams and lower federal disposal fees, segregation must occur at the point of generation. **Never mix halogenated and non-halogenated solvents.**

Container Specifications:

- **Approved Vessels:** Use only heavy-duty, high-density polyethylene (HDPE) carboys or safety cans approved by the Division of Environmental Protection (DEP). Standard glass bottles are prohibited for bulk collection over four (4) Liters.
- **Secondary Containment:** Every bulk carboy **must** remain inside a flame-retardant, leak-proof secondary containment tray capable of holding 110% of the carboy's total volume.
- **Venting & Closures:** Caps or lids must remain completely sealed at all times except when actively adding waste. For automated equipment (e.g., HPLC systems), vapor-tight manifold caps with activated charcoal filters must be utilized

Accumulation Limits:

- **Volume Thresholds:** Individual laboratories are limited to a maximum accumulation of **55 gallons** of hazardous solvent waste or **1 quart** of acutely hazardous (P-listed) waste at any given time.

- **Timeframe:** Once a bulk container is full, a pickup request must be submitted via the Chemical Waste Service (CWS) system within **3 business days**.

Step-by-Step Labeling Protocol:

An improperly labeled bulk container is an immediate EPA Resource Conservation and Recovery Act (RCRA) compliance violation.

OFFICIAL NIH CHEMICAL WASTE TAG	
☒ HAZARDOUS WASTE	☐ REUSE/REDISTRIBUTION
Chemical Composition (No formulas, no abbreviations):	
- Methanol (Non-Halogenated)	60%
- Acetone (Non-Halogenated)	35%
- Water	5%
Date Accumulation Began: 07/13/2026	

Step 1: Complete Chemical Names:

- Write out full, unabbreviated chemical names. Formulas (e.g., CH_2Cl_2 , MeOH) or generic terms (e.g., "Organic Waste") will result in an immediate inspection.
- Itemize percentages to equate to 100%. If water is part of the mixture, it must be listed.

Step 2: Clear Segregation Markings

The words "HALOGENATED SOLVENT WASTE" or NON-HALOGENATED SOLVENT WASTE must be written in bold, legible block letters across the top of the NIH Chemical Waste Tag.

Step 3: Date Tracking

The "Date Accumulation Began" must be completed the day the first drop of solvent enters a new bulk container



Local Logistics & Pickup Execution:

- **Bethesda & Local Off-Campus Sites:** Labs located on the Main Campus, Twinbrook, Rockville, and Gaithersburg must log into the online CWS portal to request transit or call CWS (301) 496-4710 to schedule a pickup of the waste materials.
- **Turnaround Time:** The containers will be collected within 1 to 2 business days.
- **Rejection Criteria:** CWS drivers will reject containers that are leaking, or overfilled

(containers must maintain at least 2 inches of headspace). Containers that lack an affixed, completed green chemical waste tag will also be rejected.

Spill & Emergency Protocol:

In the event of a bulk solvent container failure or spill exceeding one (1) or more Liter(s):

1. **Evacuate:** Immediately clear the laboratory or containment area.
2. **Isolate:** Close the door and place a warning sign to prevent re-entry.
3. **Alert DEP:** Call the DEP Spill Response Line (301-496-4451) or the NIH Fire Marshal immediately. **Never** attempt to clean a bulk volatile organic compound (VOC) spill using standard housekeeping janitorial supplies.