

Organic Solvent

Audience:	University of Connecticut Laboratories
Campus Covered:	All
EHS Contact:	Denis Shannon 6-3613
Reg. Citations:	40 CFR and University of Connecticut Policy
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Waste organic solvents that are free of solids and corrosive or reactive substances may be collected in a common bottle or can which then must be properly labeled and will be taken away on the next regularly scheduled chemical waste pick-up day.

Separated and well defined waste is easier and also less expensive to dispose of. Non-halogenated organic solvents, after pick-up from the labs, are bulked into 55-gallon drums for transport to a hazardous waste incinerator. High levels of halogens in the organic solvents cannot readily be handled in most incinerators and are not acceptable for incineration. Therefore, it is essential to indicate the composition of the waste liquid and, if a mixture, the approximate percentage by volume of each constituent. The percentage composition must be clearly indicated on the "Hazardous Waste Tag" on each container, and the full name of the waste constituents must be on the "Hazardous Waste Label." See Section "O".

1. Separation of halogenated and non-halogenated wastes

The objective of the solvent separation program is to keep the halogen content of the organic solvents for incineration below 1.0% by volume. Do not intentionally mix halogenated solvents and/or solutes with non-halogenated solvents.

When large volumes of an individual solvent are involved, consideration should be given to recycling methods such as distillation, rather than costly disposal methods. The amount of money saved in solvent purchase costs usually far exceeds the capital expense for such equipment and the success of such programs is well documented, as is the purity of recovered solvent. Information is available from Environmental Health & Safety.

2. Substances which should not be put in waste organic solvent bottles The following substances are inappropriate for incineration and should not be put in a container with organic solvents: (See the appropriate section in parentheses)

Solutions of Acids or Bases (E)
Aqueous Solutions of Toxic Organic Chemicals (H.1)
Metals (e.g. Ag, As, Ba, Cd, Cr, Hg, Pb, Se) (F)
Vacuum pump oil (H.5)
Sulfides or Inorganic Cyanides (H.6)
Strong Oxidizers or Reducers (J)
Water Reactive Substances (J)
Unknowns (M)

Large Amounts of Water

3. Waste Solvent Storage Precautions

Halogenated solvents, under certain conditions, may become corrosive, and can corrode metal containers, as can any dissolved corrosive in a discarded mixture. It is necessary to assure proper storage container are used for waste solvents. To avoid unnecessary exposure to toxic vapors, waste containers should be tightly capped when in storage. Heated solvents must be cooled to room temperature before being placed in a closed container. The transfer of highly toxic waste materials should be done in a chemical fume hood. However, storage of closed containers in fume hoods is not advised as this can impede the performance of the hood.

Remember: If in doubt, call the Department of Environmental Health and Safety for advice!!! (486-3613)