General Information

Chloroform, also known as trichloromethane, is a very volatile, sweet smelling, colorless liquid that is frequently used in the laboratory as a dilution solvent. In industry, it is commonly used in the production of the refrigerant Freon.

Chloroform is an acutely toxic compound and is classified as a category 2 carcinogen.

Personal Protective Equipment

When working with Chloroform, the following personal protective equipment (PPE) must be worn:

- Splash goggles
- Lab coat
- Long pants
- Close toed shoes
- Viton Gloves (Nitrile gloves may only be used if working with chloroform for less than 5 minutes and double gloving is employed; change gloves as often as needed).

Safety Devices

Fume hood – always work with Chloroform in a fume hood to prevent exposure by inhalation.

Identify the location of all the safety devices in the room before starting your procedure. Also, familiarize yourself with all the possible means of egress. Keep safety devices and means of egress clear at all times.

Specific Health Hazards

Chloroform has an OSHA Permissible Exposure Limit (ceiling) of 50 ppm.

This means that personnel shall not be exposed to more than 50 ppm of Chloroform at any time.

Exposure to Chloroform may cause cancer and is suspected of causing damage to the unborn child. Repeated exposure may cause damage to the liver and kidneys.
Routes of Entry

Inhalation, eye contact, skin contact, ingestion.

If any part of your body comes in contact with Chloroform, call the Amherst College Police Department (ACPD) phone number 413-542-2111. Also call this number if you begin to feel ill after working with (or in the vicinity of) Chloroform.

Inhalation

If inhaled, move to fresh air, and get help. If you begin to feel ill during / after working with Chloroform Call the Amherst College Police Department (ACDP) at x2111 to report it.

Eye contact

Use eyewash to flush eyes with water for at least 15 minutes. Remove contact lenses if present.

Skin Contact

Call the Amherst College Police Department (x2111).

Wash skin with plenty of water for 15 minutes. Use safety shower, if needed.

Ingestion

Do not induce vomiting, rinse mouth, drink plenty of water, etc.

Storage and Special Handling

Store in a tightly closed container in a cool, dry area that is well ventilated, such as a vented cabinet. Do not store on shelf.

Compounds incompatible with Chloroform are oxidizers, bases, magnesium, lithium, sodium/ sodium oxides, heat.

If you have Chloroform that you no longer need, please contact Jason Williams at x2736, for disposal.

Special Handling

No special handling.

Spill clean up
Do not attempt to clean up a Chloroform spill due to its high toxicity, regardless of the concentration or volume.

If a spill of ANY occurs:
Alert everyone in the area
Leave the room
Close the door behind you
Call Jason Williams (Chemical Hygiene Officer) at x2736 or the Amherst College Police Department (x2111) to report it.

**Due to the high toxicity of this compound, clean up shall not be done by lab personnel.**

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**Disposal**

Disposal pipets, pipet tips, and any other disposable devices – such as gloves, that come into contact with Chloroform shall be disposed of as hazardous waste. All contaminated PPE shall be disposed of as hazardous waste.

Waste containing acutely hazardous chemicals shall not be mixed with other types of waste.

Waste containing chloroform may be disposed of into your “halogenated waste” container, provided that all other contents are compatible. If unsure, dispose of it by itself.

If you have Chloroform that you no longer need, contact Jason Williams (Chemical Hygiene Officer) at x2736.

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**Questions**

Contact Jason Williams or Environmental Health and Safety if you have any questions about this SOP or this compound.