



Owner C.H.O	DOC. NO. SOP	REV. 2	DATE 12/9/2019
DOC. TITLE SOP FOR CHLOROFORM			

Environmental Health & Safety

STANDARD OPERATING PROCEDURES (SOP) FOR WORKING WITH CHLOROFORM AT AMHERST COLLEGE

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.) Gloves must be removed immediately upon contact

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

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



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Pictogram:

Hazard: Carcinogenic, Toxic, Irritant

Routes of Entry

Inhalation, eye contact, skin contact, ingestion,

If *any part of your body* comes in contact with Chloroform, call the Amherst College Emergency 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

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

Ingestion

Rinse mouth if swallowed

Storage and Special Handling

Store in a tightly closed container in a cool, dry area, such as 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, x2736, for disposal



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Special Handling

Double gloving recommended

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 occurs:

Alert everyone in the area

Leave the room

Close the door behind you

Call Jason Williams (Chemical Hygiene Officer) or The Amherst College emergency number (x2111) to report it.

Disposal

Disposal pipets, pipet tips, and any other disposable devices that come into contact with Chloroform should be disposed of as hazardous 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

Waste containing chloroform is incompatible with oxidizers, bases, magnesium, lithium, sodium/ sodium oxides, heat

If you have Chloroform that you no longer need, contact the Chemical Hygiene officer

Questions

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

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