

STANDARD OPERATING PROCEDURE

Chloroform

Zhou Lab, Institute for Environmental Genomics

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2030 SRTC, 5-4403

Dec. 6, 2018

Minimum Personal Protective Equipment Required: Nitrile gloves, eye protection, skin and body protection (long pants, lab coat, and closed toed shoes)

Risks: Chloroform is a probable human carcinogen. Inhalation of vapors can cause headaches, drowsiness, dizziness, and nausea. Chloroform is irritating to eyes, respiratory system and skin.

Over pressurized containers of chloroform are potentially explosive.

Special Handling:

- ✓ Always use chloroform in a certified fume hood
- ✓ Use of respirators is a last resort option and requires special training and a fit test
- ✓ Transport containers of chloroform on a cart or in a bottle carrier

Protocol/Procedure:

1. Place container of chloroform in fume hood before opening.
2. Keep lid on chloroform container when not in use.
3. Be aware of skin absorption as a possible route of exposure. Plan work so that minimal glove contact is expected.
4. Return chloroform bottle to flammables cabinet underneath hood

Waste Disposal:

5. Chloroform waste should be transferred to the waste container located in the fume hood.
6. There is a large carboy in the fume hood in room 2030 for chloroform waste. There are also empty 4 L bottles that can be used for waste disposal in the knee hole across from the hood in 2030.
7. When you put out a new waste bottle, make sure you label the bottle before putting waste into it. Labels for waste containers are located in a folder on the side of each hood or at Joy's desk. List the chemical(s) that will be put into the bottle (for example, Chloroform Waste).
8. When the bottles or the chloroform carboy is full it should be taken down to the storeroom for disposal. See *Waste Disposal SOP* for details.
9. Make sure you replace caps on all solvent bottles and waste containers.
10. Leave tubes, pipettes, tips, empty bottles etc. that have chloroform residue on them in the chemical hood to evaporate overnight before disposing of them. Remember to come back the next day and clean everything out of the hood.

In Case of Spill:

- ✓ Assess the extent of danger.
- ✓ Small (< 4 L):
 - Alert people in immediate area of spill.
 - Avoid breathing vapors from spill.
 - Confine spill to as small an area as possible.
 - Do not wash spill down the drain.
 - Use appropriate personal protective equipment and clean-up material for chemical spilled (spill kits are located next to each fume hood).
 - Collect contaminated materials and residues and place in container for disposal as hazardous waste.
 - Clean spill area with water.
- ✓ Large (> 4 L):
 - Dial 911 for assistance
 - Close off area of spill
 - Have person available that has knowledge of incident and laboratory to assist emergency personnel