

Trichloroethylene

Chemical Name: CAS #:

Hazard Classification:

Location Used: Principal Investigator:

Processes for Which Chemical Is Used:

HAZARDS AND PROTECTION

Hazard Information

- Carcinogen
- Reproductive Toxicity
- Liver and Kidney Toxicity

Routes of Exposure

- Ingestion ● Skin Absorption
- Inhalation
- Eye absorption

If exposed by:

- Inhalation: Remove to fresh air
- Ingestion: Do not induce vomiting.
- Eye or skin: Rinse affected area for 15 minutes

If exposed by inhalation, ingestion or eye contact, seek medical attention. For other routes, seek medical attention if necessary.

Symptoms of Exposure

- Cough, shortness of breath, dizziness, agitation, inebriation, nausea, vomiting
- Headache, drying out of skin

Exposure Limits

All exposure limits are Time Weighted Averages (average exposure over an eight-hour day) unless otherwise indicated.

OSHA PEL: 100 ppm (537 mg/m³), 200 ppm (1.07 g/m³) ceiling

ACGIH TLV: 10 ppm (53.7 mg/m³)

NIOSH REL: 1000 ppm (5.37 g/m³) IDLH

Engineering Controls

- Chemical Fume Hood Never open trichloroethylene outside of a chemical fume hood.

Administrative Controls

- Designated area sign
- Particularly hazardous substance label
- Post designated area sign before each use.
- Label containers of trichloroethylene as a health hazard.
- Use as small a quantity as possible.

Trichloroethylene 79-01-6

Health Hazard

ARKANSAS STATE UNIVERSITY EHS

LABORATORY CHEMICAL STANDARD OPERATING PROCEDURE

CS-010 Last Reviewed July 8, 2019

Personal Protective Equipment

- Gloves
- Safety glasses or splash goggles
- Lab coat

Two pairs of nitrile gloves for short-term use. If longer term use, polyvinyl alcohol (PVA) or laminate gloves are required. Change gloves immediately if a spill on gloves is observed. Wash hands after use.

OTHER SAFETY INFORMATION

Transportation Follow guidance given in the laboratory safety manual for transport of chemicals.

Storage

- Can be stored with flammable materials
- Keep tightly sealed

Incompatible materials include:

Strong oxidizing agent, strong bases, amines, alkali metals, metal powders

Spill/Accident Procedures

For all spills:

- Wear two pairs of nitrile gloves
- Evacuate the immediate area

Exposure:

- If anyone exposed requires emergency medical attention, dial 911 (or 9-911 from landline).
- Follow procedures outlined in laboratory safety manual.

Small spills (less than 500 mL in a hood or 50 mL outside a fume hood): Cover the spill with absorbent materials. Place absorbent materials in bag or bucket for collection by EHS. Clean area with soap and water once spill is removed.

Large spills (greater than 500 mL in a hood or 50 mL outside a fume hood): If the spill is in a chemical fume hood, contact the EHS director (864-710-2933). If he cannot be reached (does not answer phone, do not

leave voicemail), then call 911, pull the fire alarm and exit the building. If the spill is outside of a hood, then call 911, pull the fire alarm and exit the building.

Waste Disposal Waste trichloroethylene must be collected for disposal.

Empty bottles of trichloroethylene may be rinsed and thrown in the dumpster.

By signing below, you indicate that you have reviewed this SOP and understand the contents thereof

Revision #1

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