

# FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

## Material Safety Data Sheet (MSDS)

MSDS #: 830.00

Revision Date: April 2, 2001

### Section 1 — Chemical Product and Company Identification

#### Trichloroethylene

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

### Section 2 — Composition, Information on Ingredients

Trichloroethylene

Synonym: 1-chloro-2,2-dichloroethylene

CAS#: 79-01-6

### Section 3 — Hazards Identification

Colorless; photo-reactive liquid. Chloroform - like odor.

Slightly toxic by ingestion and inhalation. Severe body tissue irritant. Probable carcinogen to humans.

Chronic exposure may result in dermatitis. Avoid all body tissue contact.

Flammable liquid.

#### FLINN AT-A-GLANCE

Health-3

Flammability-1

Reactivity-1

Exposure-3

Storage-3

0 is low hazard, 3 is high hazard

### Section 4 — First Aid Measures

Call a physician, seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Induce vomiting. After vomiting, give mixture of 2 Tbs. of activated charcoal mixed with one cup of water. Call a physician or poison control at once.

### Section 5 — Fire Fighting Measures

Class IC Flammable liquid.

Has difficulty burning. When heated to decomposition, emits toxic hydrogen chloride gas.

Flash Point: 89.6 F; Explosion Limits: UEL: 90% (57 C), LEL: 12.5% (57 C); Autoignition Temperature:

770 F

**Fire Fighting Instructions:** Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

H-2

F-1

R-0

### Section 6 — Accidental Release Measures

Restrict unprotected personnel from area. Remove all ignition sources and ventilate area. Contain spill with sand and absorbent material; deposit in sealed bag or container. See Sections 8 and 13 for further information.

### Section 7 — Handling and Storage

Flinn Suggested Chemical Storage Pattern: Organic #4. Store with ethers, ketones, halogenated hydrocarbons and ethylene oxide.

Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in Flinn Saf-Stor Can. Protect from light.

Use and dispense in a hood.

### Section 8 — Exposure Controls, Personal Protection

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron.

Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: TWA 25 ppm, STEL 100 ppm (NIOSH, ACGIH)

### Section 9 — Physical and Chemical Properties

Colorless; photo-reactive liquid. Chloroform - like odor.  
Solubility: Slightly in water; miscible with most organic solvents.

Formula: ClCH<sub>2</sub>CCl<sub>2</sub>

Formula Weight: 131.39

Specific Gravity: 1.4904

Melting Point: -84 C

Boiling Point: 86.9 C

Vapor Pressure: 61 mm (20 C)

Vapor Density: 4.5

### Section 10 — Stability and Reactivity

Avoid oxidizing agents, reducing agents and strong bases. May decompose if exposed to light, aluminum or magnesium.  
Shelf Life: Indefinite.

### Section 11 — Toxicological Information

Acute effects: Harmful vapor, severe irritant, GI disturbances, nausea, dizziness, and headache

Chronic effects: Dermatitis, mutagen

Target organs: Nerves, liver, kidneys, heart, lungs

ORL-MUS LD50: 2402 mg/kg

IHL-MUS LC50: 8450 ppm/4H

SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

### Section 12 — Ecological Information

Data not yet available.

### Section 13 — Disposal Considerations

Please consult with state and local regulations.

Flinn Suggested Disposal Method #27j is one option.

### Section 14 — Transport Information

Shipping Name: Trichloroethylene

Hazard Class: 6.1, Keep away from food.

UN Number: UN1710

N/A = Not applicable

### Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (201-167-4), RCRA code U228.

### Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

## FLINN SCIENTIFIC INC.

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