

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 830.00

Revision Date: February 2, 2012

### 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.

A probable human carcinogen (IARC-2A).

Slightly toxic by ingestion and inhalation. Severe body tissue irritant. Chronic exposure may result in dermatitis. Avoid all body tissue contact.

Flammable liquid.

#### FLINN AT-A-GLANCE

Health-2

Flammability-1

Reactivity-1

Exposure-3

Storage-3

0 is low hazard, 3 is high hazard

### SECTION 4 — FIRST AID MEASURES

Call a physician and 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 or External: Immediately flush with fresh water for at least 15 minutes.

Internal: Rinse mouth. Give large quantities of water for dilution. Call a physician or poison control at once.

### SECTION 5 — FIRE FIGHTING MEASURES

Class IC flammable liquid. Has difficulty burning.

Flash point: 32 °C Flammable limits: Lower: 12.5% Upper: 90% Autoignition Temperature: 410 °C

When heated to decomposition, emits toxic hydrogen chloride gas.

**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 or other inert 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)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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

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

Formula weight: 131.39

Boiling point: 86.9 °C

Melting point: -84 °C

Specific gravity: 1.4904

Vapor density: 4.5

Vapor pressure: 61 mmHg

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**SECTION 10 — STABILITY AND REACTIVITY**

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

Shelf life: Indefinite, if stored properly.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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

Chronic effects: Dermatitis, mutagen, probable carcinogen.

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

ORL-RAT LD<sub>50</sub>: 4920 mg/kg

IHL-MUS LC<sub>50</sub>: 8450 ppm/4H

SKN-RBT LD<sub>50</sub>: N.A.

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

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please review all federal, state and local regulations that may apply, before proceeding.

Flinn Suggested Disposal Method #27j is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Trichloroethylene

Hazard class: 6.1, Keep away from food.

UN number: UN1710

N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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

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**SECTION 16 — OTHER INFORMATION**

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*  
for additional information about laboratory chemicals.**