

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 582.50

Revision Date: February 2, 2012

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Perchloroethylene

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

Perchloroethylene

Synonym: Tetrachloroethylene

CAS#: 127-18-4

### SECTION 3 — HAZARDS IDENTIFICATION

Clear, colorless liquid. Ether-like odor.

A probable human carcinogen (IARC-2A).

Slightly toxic by ingestion and inhalation. Irritating to body tissues. Avoid all body contact.

#### FLINN AT-A-GLANCE

Health-2

Flammability-0

Reactivity-1

Exposure-3

Storage-1

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

Nonflammable, noncombustible liquid.

When heated to decomposition, emits toxic fumes of Cl.

**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-0

R-0

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from area and ventilate area. Contain spill with sand or 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. 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: PEL 100 ppm Ceiling 300 ppm (OSHA)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Clear, colorless liquid. Ether-like odor.  
Solubility: Soluble in alcohol, ether, oils; insoluble in water.  
Formula:  $\text{CCl}_2=\text{CCl}_2$   
Formula weight: 165.82

Boiling point: 120-122 °C  
Melting point: -22 °C  
Specific gravity: 1.6  
Vapor density: 5.83  
Vapor pressure: 13 mmHg

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**SECTION 10 — STABILITY AND REACTIVITY**

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Avoid contact with strong bases, strong acids, acid anhydrides and alcohols.  
Shelf life: Indefinite, if stored properly.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Harmful liquid and fumes, irritant, nausea, dizziness and headache.  
Chronic effects: Probable carcinogen, mutagen, nerves, heart, liver and kidneys. Target organs: N.A.

ORL-RAT LD<sub>50</sub>: 2629 mg/kg  
IHL-RAT LC<sub>50</sub>: 34200 mg/m<sup>3</sup>/8H  
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 #4b is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping name: Tetrachloroethylene  
Hazard class: 6.1, Keep away from food  
UN number: UN1897  
N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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TSCA-listed, EINECS-listed (204-825-9), RCRA code U210.

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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.**