

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 329.00

Revision Date: February 2, 2012

---

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

---

#### Ethylene Dichloride

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

---

Ethylene dichloride

Synonym: 1,2-Dichloroethane

CAS#: 107-06-2

---

### SECTION 3 — HAZARDS IDENTIFICATION

---

Colorless, oily liquid. Chloroform-like odor.

Possible human carcinogen (IARC-2B).

Moderately toxic by ingestion, inhalation, and skin absorption. Strong skin and eye irritant. Avoid all body tissue contact.

Flammable liquid.

#### FLINN AT-A-GLANCE

Health-2

Flammability-3

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. Call a physician or poison control at once.

---

### SECTION 5 — FIRE FIGHTING MEASURES

---

Class 1B flammable liquid.

Flash point: 13 °C Flammable limits: Lower: 6.2% Upper: 15.6% Autoignition Temperature: 413 °C

When heated to decomposition, emits toxic fumes of Cl and phosgene.

**Fire Fighting Instructions:** Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and

SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

H-2

F-3

R-0

---

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

---

Restrict unprotected personnel from the area. Remove all ignition sources and ventilate area. Contain the spill with sand or other inert absorbent material and deposit in a 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.

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 a 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 50 ppm, STEL 2 ppm (OSHA, NIOSH).

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

Colorless, oily liquid with an odor like chloroform.  
Solubility: Slightly soluble in water. Miscible: with most common organic solvents.  
Formula: C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub>  
Formula weight: 98.96

Boiling point: 83.5 °C  
Melting point: -36 °C  
Refractive index: 1.4422  
Specific gravity: 1.2454

**SECTION 10 — STABILITY AND REACTIVITY**

Avoid contact with oxidizers and aluminum.  
Shelf life: Poor, gradually decomposed by air, light, and moisture.

**SECTION 11 — TOXICOLOGICAL INFORMATION**

Acute effects: Toxic, irritant, nausea, headache, vomiting, gastrointestinal disturbances.  
Chronic effects: Causes dermatitis, possible mutagen.  
Target organs: Liver, kidneys.

ORL-RAT LD<sub>50</sub>: 670 mg/kg  
IHL-RAT LC<sub>50</sub>: 1000 ppm/7H  
SKN-RBT LD<sub>50</sub>: 2800 mg/kg

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 review all federal, state and local regulations that may apply, before proceeding.  
Flinn Suggested Disposal Method #27j is one option.

**SECTION 14 — TRANSPORT INFORMATION**

Shipping name: Ethylene dichloride  
Hazard class: 3, Flammable liquid, poison  
UN number: UN1184  
N/A = Not applicable

**SECTION 15 — REGULATORY INFORMATION**

TSCA-listed, EINECS-listed (203-458-1), RCRA code U077.

**SECTION 16 — OTHER INFORMATION**

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. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

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