



Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810

Number:
Issue Date

DLM-2809
03/16/12

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MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description CHLOROETHANE (2-D, 98%)

Cambridge Isotope Laboratories, Inc.
50 Frontage Rd
ANDOVER, MA 01810
USA

E-mail cilsales@isotope.com
Web Site www.isotope.com

Phone Numbers

Emergency Contact Chemtrec
Emergency Phone 1-800-424-9300 (24 hours)

Customer Service 1-800-322-1174 (8:30-5:30 EST)
Phone
Transportation 1-202-483-7616 (24 hours)

2 HAZARDS IDENTIFICATION

OSHA Hazards

Flammable gas, Compressed gas, Carcinogen

Target Organs

Heart, Liver, Kidney, Lungs

GHS Label Information

Signal Word Warning

Hazards Identification

Health hazard
Gas cylinder
Flame

Hazard Statement(s)

Contains gas under pressure; may explode if heated.
Suspected of causing cancer.
Harmful to aquatic life.

Precautionary Statement(s)

Use personal protective equipment as required.
Protect from sunlight. Store in a well-ventilated place.



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HMIS Ratings

Chronic Health	*
Physical	3
Flammability	4
Health	1

NFPA Codes

Fire	4
Health	2
Reactivity	0

Potential Health Effects

Eyes	Contact may cause eye irritation.
Ingestion	May be harmful if swallowed.
Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful if absorbed through skin. May cause skin irritation.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Composition / Information on Ingredients

Synonyms	Ethyl chloride
Chemical Formula	CH ₂ DCH ₂ Cl
Molecular Weight	65.5
CAS No.	23072-56-2
EC No.	200-830-5
Index No.	602-009-00-0

4 FIRST AID MEASURES

First Aid Measures

Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation	If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin	Wash off with soap and plenty of water. Consult a physician.
Additional Information	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.



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5 FIRE FIGHTING MEASURE

Fire Fighting Measures

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Fire Fighting Equipment Wear self contained breathing apparatus for fire fighting if necessary.

Fire Fighting Procedures Use water spray to cool unopened containers.

6 ACCIDENTAL RELEASE MEASURES

Accidental Release Measures

Personal Precautions Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleanup Clean up promptly by sweeping or vacuum.

7 HANDLING AND STORAGE

Precautions for Safe Handling

Handling Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

Conditions for Safe Storage

Storage Store at room temperature away from light and moisture.

8 EXPOSURE CONTROL / PERSONAL PROTECTION

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

CHEMICAL NAME
CHLOROETHANE

TWA OSHA PEL ACGIH TLV
2,600 mg/M³ 100 ppm



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Personal Protection

Eyes - Face	Wear safety glasses with side shields (or goggles) and a face shield.
Skin	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory	When appropriate, use NIOSH/CEN approved respirator.
Protective Clothing	Wear suitable protective clothing and gloves.
Work Hygienic Practices	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties (Unlabeled Compound)

Form	Liquefied gas
Color	Colourless
pH	No data available
Melting Point	-139.0 °C (-218.2 °F)
Boiling Point	12.3 °C (54.1 °F) at 1,013 hPa (760 mmHg)
Flashpoint	-50.0 °C (-58.0 °F) - closed cup
Lower Explosion Limit	3.8 %(V)
Upper Explosion Limit	15.4 %(V)
Vapor Pressure	1,323.4 hPa (992.6 mmHg) at 20.0 °C (68.0 °F)
Solubility in Water	No data available
Auto Ignition Temperature	No data available

10 STABILITY AND REACTIVITY

Stability and Reactivity

Chemical Stability	Stable if stored under recommended conditions.
Conditions to Avoid	Not available
Hazardous decomposition products	Formed under fire conditions - Carbon oxides, Hydrogen chloride gas



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Materials to avoid Strong oxidizing agents, Sodium/sodium oxides, Potassium, and its alloys

11 TOXICOLOGICAL INFORMATION

Acute Toxicity

LC50 Inhalation Rat 2 h - 152,000 mg/m³

Serious No data available

Damage/Eye
Irritation

Skin No data available
Corrosion/Irritation

Inhalation No data available

Respiratory or Skin Not available
Sensitization

Germ Cell Not available
Mutagenicity

Carcinogenicity This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification. Limited evidence of carcinogenicity in animal studies.

IARC No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible, or confirmed human carcinogen by IARC.

NTP No component of this product present at levels greater than or equal to 0.1% is identifiable as a known or anticipated carcinogen by NTP.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity Overexposure may cause {female/male} reproductive disorder(s) based on tests with laboratory animals.

Specific Target Organ Toxicity

Single Exposure No data available

Repeated Exposure No data available

Signs and Symptoms of Exposure

Abdominal pain

Vomiting

Headache

Cough

Intoxication

Incoordination



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Dizziness
Liver
Kidney injury may occur
Readily absorbed through lungs and skin, but is also rapidly given off through the lungs
Dermatitis
Consumption of alcohol may increase toxic effects
At high concentrations: Cardiac arrest
Acts as a simple asphyxiant by displacing air
Notes to physician: the use of adrenaline as a stimulant should be avoided due to the sensitizing effect of chloroethane on the myocardium.
The chemical, physical, and toxicological properties have not been thoroughly investigated.

Other Information

RTECS KH7525000

12 ECOLOGICAL INFORMATION

Toxicity

Persistence and Not available
Degradability

Bioaccumulative Not available
Potential

Mobility in Soil Not available

PBT and vPvB Not available
Assessment

Other Adverse An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Effects Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13 DISPOSAL CONSIDERATIONS

Disposal Considerations

Product Disposal Waste materials should be disposed of under conditions which meet Federal, State, and Local
environmental control regulations.

14 TRANSPORT INFORMATION

Transportation Information-DOT/IATA/IMDG



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Special Shipping IATA/DOT: Not permitted on passenger aircraft.
Notes
UN Number 1037
Prop. Ship. Name Ethyl chloride
Hazard Class 2.1
Reportable Quantity (RQ) DOT US 100 lbs
Marine Pollutant No
Poison Inhalation Hazard No

15 REGULATORY INFORMATION

Regulatory Information

Flammable gas, Compressed gas, Carcinogen

SARA

Sara 302 Component No chemicals in this material are subject to the reporting requirements.
Sara 313 Component No chemicals in this material are subject to the reporting requirements.

SARA 311/312 Hazards

Fire (Y/N) Y
Pressure Generating (Y/N) Y
Chronic (Y/N) Y

STATE REGULATIONS

Massachusetts Right to Know Yes
Pennsylvania Right to Know Yes
New Jersey Right to Know Yes

California Proposition 65 WARNING! This product contains a chemical known by the state of California to cause cancer.

Canada



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DSL Status All components of this product are on the Canadian DSL list.
EU
Hazard Harmful

Safety Statements

Do not breathe gas/fumes/vapour/spray.
Avoid any inhalation, contact with skin and eyes. Wear suitable protective clothing and gloves.
Wear suitable protective clothing and gloves.

Risk Statements

Limited evidence of a carcinogenic effect.

16 OTHER INFORMATION

Additional MSDS Information This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Approved On 03/16/12
Version Number 3