Material Safety Data Sheet

Version 3.1
Revision Date 03/25/2009
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Chloromethyl methyl ether

Product Number : 100331
Brand : Aldrich

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone : +1 800-325-5832
Fax : +1 800-325-5052
Emergency Phone # : (314) 776-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Methyl chloromethyl ether
Methoxymethyl chloride
MOM chloride

Formula : C_2H_5ClO
Molecular Weight : 80.51 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Chlorodimethyl ether			
107-30-2	203-480-1	603-075-00-3	-

3. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Flammable Liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Irritant, Carcinogen

Target Organs

Lungs, Eyes, Kidney

Other hazards which do not result in classification
Lachrymator.

HMIS Classification

Health Hazard: 3
Chronic Health Hazard: *
Flammability: 3
Physical hazards: 0

NFPA Rating

Health Hazard: 2
Fire: 3
Reactivity Hazard: 0

Potential Health Effects

Inhalation	Toxic if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Toxic if swallowed.

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point	16 °C (61 °F) - closed cup
Ignition temperature	no data available

Suitable extinguishing media
For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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

Methods for cleaning up
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Handling
Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Recommended storage temperature: 2 - 8 °C

Hydrolyses readily.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves.

Eye protection
Safety glasses

Skin and body protection
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid

Safety data

pH	no data available
Melting point	no data available
Boiling point	55 - 57 °C (131 - 135 °F) - lit.
Flash point	16 °C (61 °F) - closed cup
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	954.6 hPa (716.0 mmHg) at 55 °C (131 °F) 244.6 hPa (183.5 mmHg) at 20 °C (68 °F)
Density	1.06 g/mL at 25 °C (77 °F)
Water solubility	no data available

10. STABILITY AND REACTIVITY

Storage stability
Stable under recommended storage conditions.

Conditions to avoid
Heat, flames and sparks.

Materials to avoid
Oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Hazardous reactions
Vapours may form explosive mixture with air.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LC50 Inhalation - mouse - 2 h - 1,030 mg/m3

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

IARC:	1 - Group 1: Carcinogenic to humans (Chlorodimethyl ether)
NTP:	Known to be human carcinogen (Chlorodimethyl ether)
OSHA:	1910.1003 (Chlorodimethyl ether)

Signs and Symptoms of Exposure

Cough, Shortness of breath, Headache, Nausea, Vomiting

Potential Health Effects

Inhalation	Toxic if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Toxic if swallowed.
Target Organs	Lungs, Eyes, Kidney,

Additional Information
RTECS: KN6650000

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

no data available

Further information on ecology

no data available

13. DISPOSAL CONSIDERATIONS

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN-Number: 1239 Class: 6.1 (3) Packing group: I
Proper shipping name: Methyl chloromethyl ether
Marine pollutant: No
Poison Inhalation Hazard: Hazard zone A

IMDG
UN-Number: 1239 Class: 6.1 (3) Packing group: I EMS-No: F-E, S-D
Proper shipping name: METHYL CHLOROMETHYL ETHER
Marine pollutant: No

IATA
UN-Number: 1239 Class: 6.1 (3)
Proper shipping name: Methyl chloromethyl ether
IATA Passenger: Not permitted for transport
IATA Cargo: Not permitted for transport

15. REGULATORY INFORMATION

OSHA Hazards
Flammable Liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Irritant, Carcinogen

DSL Status
This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

	CAS-No.
Chlorodimethyl ether	107-30-2

SARA 302 Components

	CAS-No.	Revision Date
Chlorodimethyl ether	107-30-2	1994-04-24

SARA 313 Components

	CAS-No.	Revision Date
Chlorodimethyl ether	107-30-2	1994-04-24

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Chlorodimethyl ether	107-30-2	1994-04-24

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Chlorodimethyl ether	107-30-2	1994-04-24

New Jersey Right To Know Components

	CAS-No.	Revision Date
Chlorodimethyl ether	107-30-2	1994-04-24

California Prop. 65 Components

WARNING! This product contains a chemical known in the State of California to cause cancer. Chlorodimethyl ether	CAS-No. 107-30-2	Revision Date 1992-11-09

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.