

Revision number: 4 Revision date: 02/02/2016

1. IDENTIFICATION

Product name: Product code: (Chloromethyl)cyclopropane C2469

Product use: Restrictions on use:

Company:

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2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:

Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 2A] Germ Cell Mutagenicity [Category 2] Flammable Liquids [Category 2]

Signal word:

Danger!

Hazard Statement(s):

Causes serious eye irritation Causes skin irritation Highly flammable liquid and vapor Suspected of causing genetic defects

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention]

[Response]

[Storage] [Disposal] Wash hands and face thoroughly after handling. Wear protective gloves. Wear eye and face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection and face protection. Keep away from heat, sparks, open flames or other hot surfaces. - No smoking. Keep container tightly closed. Ground or bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting, and equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves, eye protection and face protection.

If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. If exposed: Call a poison center or doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish.

Store locked up. Store in a well-ventilated place. Keep cool. Dispose of contents and container in accordance with US EPA guidelines for the classification and determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

For laboratory research purposes. Not for drug or household use.

Emergency telephone number:

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SAFETY DATA SHEET

Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) **Responsible department:** TCI America Environmental Health Safety and Security +1- 503-286-7624

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2. HAZARD(S) IDENTIFICATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

3. COMPOSITION/INFORMATION	
Substance/Mixture:	Substance
Components:	(Chloromethyl)cyclopropane
Percent:	>95.0%(GC)
CAS Number:	5911-08-0
Molecular Weight:	90.55
Chemical Formula:	C₄H ₇ Cl
4. FIRST-AID MEASURES	
Inhalation:	Call a poison center or doctor if you feel unwell. Effects of exposure (inhalation) to substance may be delayed. Inhalation of vapors or contact with substance will result in contamination and potential harmful effects. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Skin contact:	Call a poison center or doctor if you feel unwell. Effects of exposure (skin contact) to substance may be delayed. Remove and wash contaminated clothing before re-use. Remove and isolate contaminated clothing and shoes. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the
Eye contact:	material(s) involved and take precautions to protect themselves. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Contact with material may irritate or burn eyes. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Ingestion:	Do not induce vomiting with out medical advice. Effects of exposure (ingestion) to substance may be delayed. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Symptoms/effects:	
Acute: Delayed:	Redness. No data available
Immediate medical attention:	CAUTION: Victim may be a source of contamination. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
5. FIRE-FIGHTING MEASURES	
Suitable extinguishing media:	Dry chemical, CO_2 , water spray, or alcohol-resistant foam. Consult with local fire authorities before attempting large scale fire fighting operations.
Specific hazards arising from the cher Hazardous combustion products: Other specific hazards:	mical These products include: Carbon oxides Halogenated compounds WARNING: Highly toxic HCl gas is produced during combustion.
have a very low flash point: Use of water explosion hazard. Containers may exploo Special protective equipment for fire-f	In the streams. Dike fire-control water for later disposal; do not scatter the material. CAUTION: All these products spray when fighting fire may be inefficient. Do not use straight streams. Runoff to sewer may create fire or de when heated. Move containers from fire area if you can do it without risk. ighters: eathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations
	ations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may

6. ACCIDENTAL RELEASE MEASURES

6. ACCIDENTAL RELEASE MEASURES		
Personal precautions:	Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Use spark- proof tools and explosion-proof equipment. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.	
Personal protective equipment:	Wear eye protection (splash goggles) and face protection (full length face shield). Wear protective clothing (chemical resistant suit and chemical resistant boots). Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).	
Emergency procedures:	Isolate area until gas has dispersed. Do not clean-up or dispose except under supervision of a specialist. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.	

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). All equipment used when handling the product must be grounded. Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material.

Environmental precautions:

Keep away from living quarters. Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

7. HANDLING AND STORAGE	
Precautions for safe handling:	Do NOT breath gas, fumes, vapor, or spray. Manipulate under an adequate fume hood. Avoid contact with skin and eyes. Avoid contact - obtain special instructions before use. Avoid prolonged or repeated exposure. Normal measures for preventive fire protection. Keep away from heat and sources of ignition. Use explosion-proof equipment. Use only non-sparking hand tool when handling this product. Ground all equipment containing material. Take measures to prevent build up of electrostatic charge. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition.
Conditions for safe storage:	Store locked up. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. Store and use away from heat, sparks, open flame, or any other ignition source. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store under inert gas (e.g. Argon). Moisture sensitive.
Storage incompatibilities:	Combustible substances, Store away from oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits:

No data available

Appropriate engineering controls:

Handle only in a fully enclosed system and equipment. Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment	
Respiratory protection: Hand protection:	Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves.
Eye protection:	Splash goggles.
Skin and body protection:	Wear protective clothing (chemical resistant suit and chemical resistant boots).

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C):	Liquid
Form:	Clear
Color:	Colorless - Very pale yellow
Odor:	No data available
Odor threshold:	No data available

(Chloromethyl)cyclopropane

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Page 4 of 6

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9. PHYSICAL AND CHEMICA			
Melting point/freezing point:	-91°C (-132°F)	pH:	No data available
		•	
Boiling point/range:	88°C (190°F)	Vapor pressure:	No data available
Decomposition temperature:	No data available	Vapor density:	No data available
Relative density:	0.99	Dynamic Viscosity:	No data available
Kinematic Viscosity:	No data available		
Deutition coefficients	Ne dete evelleble		
Partition coefficient:	No data available	Evaporation rate:	No data available
n-octanol/water (log P _{ow})		(Butyl Acetate = 1)	
Flash point:	-2°C (28°F)	Autoignition temperature:	No data available
Flammability (solid, gas):	No data available	Flammability or explosive li	
Tianinability (Solid, gas).			a available
		Lower: No dat	a available
		Upper: No dat	a available
Solubility(ies):			
10. STABILITY AND REACTI	VITY		
Reactivity:	Not Available.		
Chemical Stability:		nmended storage conditions. (See Sectio	n 7)
Possibility of Hazardous Reaction		ammable/explosive vapor-air mixture.	
Conditions to avoid:	Avoid excessive he		
Incompatible materials:	Oxidizing agents		
Hazardous Decomposition Prod			
11. TOXICOLOGICAL INFOR	MATION		
Acute Toxicity:			
No data available			
NO Gala available			
Skin corrosion/irritation:			
No data available			
Serious eye damage/irritation:			
No data available			
Descriptions on altim consistention			
Respiratory or skin sensitization	1:		
No data available			
Germ cell mutagenicity:			
No data available			
Carcinogenicity:			
No data available			
IARC: No data available	NTP:	No data available	OSHA: No data available
Reproductive toxicity:			
No data available			
Routes of Exposure:	Inhalation, Eye cor	ntact, Ingestion, Skin contact.	
Symptoms related to exposure:			
		, scaling, reddening, or occasionally bliste	ring. Skin contact may result in redness, pain
or dry skin. Eye contact may result	ι in redness or pain.		
Potential Health Effects:			
Skin and eye contact may result in			
Target organ(s):	No data available		
12. ECOLOGICAL INFORMA	TION		
Ecotoxicity			
Fish:	No data available		
Crustacea:	No data available		
Algae:	No data available		
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Page 5 of 6

12. ECOLOGICAL INFORMATION

Persistence and degradability: Bioaccumulative potential (BCF):	No data available No data available
Mobillity in soil:	No data available
Partition coefficient:	No data available
n-octanol/water (log P _{ow})	
Soil adsorption (Koc):	No data available
Henry's Law:	No data available
constant (PaM ³ /mol)	

13. DISPOSAL CONSIDERAT	
Disposal of product:	Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure
	regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.
Disposal of container:	Dispose of as unused product. Do not re-use empty containers.
Other considerations:	Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

DOT (US) UN number: UN1993	Proper Shipping Name: Flammable liquids, n.o.s.	Class or Division: 3 Flammable liquid	Packing Group: II
IATA UN number: UN1993	Proper Shipping Name: Flammable liquid, n.o.s.	Class or Division: 3 Flammable liquid	Packing Group: II
IMDG UN number: UN1993	Proper Shipping Name: Flammable liquid, n.o.s.	Class or Division: 3 Flammable liquid	Packing Group: II
EmS number:	F-E, S-E		

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

(i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.

(ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet.

US Federal Regulations

CERCLA Hazardous substance and Reportable Quantity:		
SARA 313:	Not Listed	
SARA 302:	Not Listed	

State Regulations

State Right-to-Know

Massachusetts	Not Listed
New Jersey	Not Listed
Pennsylvania	Not Listed
California Proposition 65:	Not Listed

Other Information

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15. REGULATORY INFORMATION		
NFPA Rating:	HMIS Classification:	
Health: 1	Health: 1	
Flammability: 3	Flammability: 3	
Instability: 0	Physical: 0	
International Inventories		
WHMIS hazard class:	B2: Flammable Liquid.	
EC-No:	D2B: Materials causing other toxic effects. (Toxic) 227-632-1	
16. OTHER INFORMATION		

Revision date: 02/02/2016

Revision number: 4

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective gogles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.