

Revision number: 3 Revision date: 11/10/2015

IDENTIFICATION 1

Product name: Product code:

Cyclopropylamine C0981

Product use: Restrictions on use:

Company:

TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200:

Acute Toxicity - Oral [Category 4] Acute Toxicity - Dermal [Category 4] Acute Toxicity - Inhalation [Category 4] Eye Damage/Irritation [Category 1] Flammable Liquids [Category 2] Skin Corrosion/Irritation [Category 1B]

Signal word:

Danger!

Hazard Statement(s):

Causes serious eye damage Causes severe skin burns and eye damage Harmful if swallowed Harmful in contact with skin Harmful if inhaled Highly flammable liquid and vapor

Pictogram(s) or Symbol(s):



Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Wear protective gloves and protective clothing. Avoid breathing fume, mist, vapors or spray. Use only outdoors or in a well-ventilated area. Do not breathe dusts or mists. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection. Wear face protection (full length face shield). 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 swallowed: Immediately call a poison center or doctor. Rinse mouth. If on skin: Wash with plenty of

water. Call a poison center or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a poison center or doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish.

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

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SAFETY DATA SHEET

Emergency telephone number: 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

Precautionary Statement(s): [Prevention]

[Response]

2. HAZARD(S) IDENTIFICATION

[Storage] [Disposal] 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)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Components: Percent: CAS Number: Molecular Weight: Chemical Formula: Synonyms:	Substance Cyclopropylamine >95.0%(GC)(T) 765-30-0 57.10 C_3H_7N Aminocyclopropane
4. FIRST-AID MEASURES	
Inhalation:	Immediately call a poison center or doctor. Effects of exposure (inhalation) to substance may be delayed. 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
Skin contact:	personnel are aware of the material(s) involved and take precautions to protect themselves. For severe burns, immediate medical attention is required. Immediately call a poison center or doctor. 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 material(s)
Eye contact:	involved and take precautions to protect themselves. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Eye contact with vapors or substance may cause severe injury, burns, or death. 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:	Harmful if swallowed. Do not induce vomiting with out medical advice. 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:	Pain. Redness. No data available
Immediate medical attention:	WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is harmful. WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is corrosive. For severe burns, immediate medical attention is required. 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 or water spray. Consult with local fire authorities before attempting large scale fire fighting operations.
Specific horordo origing from the cham	ical

Specific hazards arising from the chemical

Hazardous combustion products:These products include: Carbon oxides Nitrogen oxidesOther specific hazards:Closed containers may explode from heat of a fire.

Special precautions for fire-fighters:

Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient. Do not use straight streams. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Move containers from fire area if you can do it without risk.

5. FIRE-FIGHTING MEASURES

Special protective equipment for fire-fighters:

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

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). Lab coat. 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. 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.

Precautions for safe handling:	Do NOT breath gas, fumes, vapor, or spray. Manipulate under an adequate fume hood. Do not ingest. Avoid contact with skin and eyes. Avoid contact with skin. 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:	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. Store locked up. 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). Hygroscopic material, store in a tightly sealed container.
Storage incompatibilities:	Acids, Bases, Store away from oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits:

Appropriate engineering controls:

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:	Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.
Hand protection:	Wear protective gloves.
Eye protection:	Splash goggles.
Skin and body protection:	Lab coat.

No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

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

Cyclopropylamine

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9. PHYSICAL AND CHEMICA Melting point/freezing point:	-10°C (14°F)	pH:	No data available
Boiling point/range:	50°C (122°F)	Vapor pressure:	No data available
Decomposition temperature:	No data available	Vapor density:	4.67
Relative density: Kinematic Viscosity:	0.82 No data available	Dynamic Viscosity:	No data available
Partition coefficient: n-octanol/water (log Pow)	No data available	Evaporation rate: (Butyl Acetate = 1)	No data available
Flash point: Flammability (solid, gas):	1°C (34°F) No data available	Autoignition temperature: Flammability or explosive lin Lower: No data	275°C (527°F) nits: a available
Solubility(ies): Water: Miscible		Upper: No data	a available
10. STABILITY AND REACTI	VITV		
IU. STADIEN I AND NEACH			
Reactivity: Chemical Stability:	Not Available.	nended storage conditions. (See Section	7)
Possibility of Hazardous Reaction		mended storage conditions. (See Section mmable/explosive vapor-air mixture.	
Conditions to avoid:	Avoid excessive hea		
ncompatible materials:		d chlorides, Acids, Carbon dioxide, Oxidi	izing agents
Hazardous Decomposition Prod			
11. TOXICOLOGICAL INFOR	MATION		
RTECS Number: GZ0685500			
Acute Toxicity: orl-rat LD50:445 mg/kg			
Skin corrosion/irritation: No data available			
Serious eye damage/irritation: No data available			
Respiratory or skin sensitizatior No data available	1:		
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 conta	act, Ingestion, Skin contact.	
		nay produce burrns. Skin contact may re Ilt in corneal damage or blindness.	sult in inflammation; characterized by itching
	skin and eye contact may result No data available	in irriatation. May be harmful if inhaled o	r ingested.
12. ECOLOGICAL INFORMA	TION		
Ecotoxicity	No doto ovoilable		

Ecotoxicity Fish:

No data available

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12. ECOLOGIC	AL INFORMATION				
Crustacea	a:	No data available			
Algae:		No data available			
ersistence and	degradability:	No data available			
	potential (BCF):	No data available			
lobillity in soil:		No data available			
artition coeffici		No data available			
-octanol/water (oil adsorption (No data available			
enry's Law:	NUC).	No data available			
onstant (PaM ³ /n	nol)				
3. DISPOSAL	CONSIDERATIONS			or's responsibility to comply with	
		chemical incinerat assistance but doe regulatory complia	or equipped with an afterburn es not replace these laws, nou ince according to the law. US n 40 CFR Parts 261. The proc	live or mix material with a comb ler and scrubber system. This so r does compliance in accordanc EPA guidelines for Identificatio luct should not be allowed to en	ection is intended to provie e with this section ensure n and Listing of Hazardou
Disposal of contain	ainar		soll. sed product. Do not re-use er	moty containers	
Other considerat				when disposing of the substanc	e
			.,		
14. TRANSPOR	RT INFORMATION				
DOT (US) JN number: JN2733	Proper Shipping N Amine, flammable, o		Class or Division: 3 Flammable liquid	Subrisk(s): 8 Corrosive material	Packing Group:
ΑΤΑ					
JN number:	Proper Shipping N	ame:	Class or Division:	Subrisk(s):	Packing Group:
N2733	Amines, flammable,	, corrosive, n.o.s.	3 Flammable liquid	8 Corrosive material	11
MDG	Proper Shipping N		Class or Division: 3 Flammable liquid	Subrisk(s): 8 Corrosive material	Packing Group:
	Amines, flammable,				
JN2733	Amines, flammable,	F-E, S-C			
IN2733		F-E, S-C			
JN number: JN2733 EmS number: 15. REGULATC	Amines, flammable,	F-E, S-C			
IN2733 ImS number:	DRY INFORMATION				
IN2733 ImS number: I <u>5. REGULATC</u> Ioxic Substance	DRY INFORMATION):			
IN2733 ImS number: I <u>5. REGULATC</u> Toxic Substance	DRY INFORMATION):	CA) inventory.		

CERCLA Hazardous substance a	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

NFPA Rating:

HMIS Classification:

Health:	3	Health:	3
Flammability:	3	Flammability:	3
Instability:	0	Physical:	0

15. REGULATORY INFORMAT	<u>10N</u>
WHMIS hazard class:	E: Corrosive material. B2: Flammable Liquid. D2A: Materiale activity offects () (con Tavia)
EC-No:	D2A: Materials causing other toxic effects. (Very Toxic) 212-142-2

16. OTHER INFORMATION

Revision date: 11/10/2015

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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 goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.