TCI AMERICA

SAFETY DATA SHEET

Revision number: 4
Revision date: 05/17/2016

1. IDENTIFICATION

Product name: Bis(2-morpholinoethyl) Ether
Product code: B1784

Product use: For laboratory research purposes.
Restrictions on use: Not for drug or household use.

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TCI America (8:00am - 5:00pm) PST
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Transportation Emergencies:
Chemtrec 24-Hour
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+1-703-527-3887 (International)
Responsible department:
TCI America
Environmental Health Safety and Security
+1- 503-286-7624

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Not classifiable

Signal word: None

Hazard Statement(s): None

Pictogram(s) or Symbol(s): None

Precautionary Statement(s): None

Hazards not otherwise classified: [HNOC] May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Substance
Components: Bis(2-morpholinoethyl) Ether
Percent: >85.0%(GC)
CAS Number: 6425-39-4
Molecular Weight: 244.34
Chemical Formula: $C_{12}H_{24}N_2O_3$
Synonyms: 4,4'-(3-Oxapentane-1,5-diyl)bismorpholine

4. FIRST-AID MEASURES

Inhalation: If a person breathes large amounts of this chemical, move the exposed person to fresh air at once.
Skin contact: If a person feels unwell or symptoms of skin irritation appear, consult a physician.
Eye contact: If this chemical contacts the eyes, promptly wash (irrigate) the eyes with large amounts of water, occasionally lifting the lower and upper eyelids.
Ingestion: If swallowed, seek medical advice immediately and show the container or label.

Symptoms/effects:

Acute: No data available
Delayed: No data available

4. FIRST-AID MEASURES

Immediate medical attention: Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use extinguishing media suitable for surrounding materials.

Specific hazards arising from the chemical

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

Special precautions for fire-fighters:
Not available
Special protective equipment for fire-fighters:
Not available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8).
Personal protective equipment: Safety glasses.
Emergency procedures: In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution.

Methods and materials for containment and cleaning up:
Dike far ahead of liquid spill for later disposal.
Environmental precautions:
Prevent entry into sewers, basements or confined areas.

7. HANDLING AND STORAGE

Precautions for safe handling: Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place.
Storage incompatibilities: Combustible substances, Store away from oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits: No data available

Appropriate engineering controls:
Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Liquid
Form: Clear
Color: Pale yellow - Reddish yellow
Odor: No data available
Odor threshold: No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

Melting point/freezing point:	-28°C (-18°F)	**pH:**	No data available
Boiling point/range:	192°C (378°F)/2kPa	**Vapor pressure:**	No data available
Decomposition temperature:	No data available	**Vapor density:**	No data available
Relative density:	1.06	**Dynamic Viscosity:**	No data available
Kinematic Viscosity:	No data available		
Partition coefficient: n-octanol/water (log P_{ow})	No data available	**Evaporation rate:** (Butyl Acetate = 1)	No data available
Flash point:	146°C (295°F)	**Autoignition temperature:**	No data available
Flammability (solid, gas):	No data available	**Flammability or explosive limits:**	
		Lower:	No data available
		Upper:	No data available

Solubility(ies):
Water: Soluble

10. STABILITY AND REACTIVITY

Reactivity:	Not Available.
Chemical Stability:	Stable under recommended storage conditions. (See Section 7)
Possibility of Hazardous Reactions:	No hazardous reactivity has been reported.
Conditions to avoid:	Avoid excessive heat and light.
Incompatible materials:	Strong oxidizing agents
Hazardous Decomposition Products:	No data available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:
No data available

Skin corrosion/irritation:
No data available

Serious eye damage/irritation:
No data available

Respiratory or skin sensitization:
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 contact, Ingestion, Skin contact.
Symptoms related to exposure:
Overexposure may result in serious illness or death.
Potential Health Effects:
May be harmful if inhaled or ingested. Overexposure may result in serious illness or death.
Target organ(s): No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Fish:	No data available
Crustacea:	No data available
Algae:	No data available

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATIONS

Disposal of product:	Recycle to process if possible.
Disposal of container:	Dispose of as unused product.
Other considerations:	Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

DOT (US) Non-hazardous for transportation.

IATA Non-hazardous for transportation.

IMDG Non-hazardous for transportation.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):
This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

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

NFPA Rating:

Health:	0
Flammability:	1
Instability:	0

HMIS Classification:

Health:	0
Flammability:	1
Physical:	0

International Inventories

WHMIS hazard class:	No data available.
EC-No:	229-194-7

16. OTHER INFORMATION

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16. OTHER INFORMATION

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.