



# **Material Safety Data Sheet**

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	Corrosive to eyes and skin on contact.	

Section I. Chemical Product and Company Identification			
Chemical Name	Diethylene Glycol Bis(3-aminopropyl) Ether		
Catalog Number	D1571	Supplier	TCI America 9211 N. Harborgate St.
Synonym	Di(3-aminopropyl) Ether Diethylene Glycol		Portland OR 1-800-423-8616
Chemical Formula	(NH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OCH <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub> O		Chemtrec® (800) 424-9300 (U.S.)
CAS Number	4246-51-9	In case of Emergency	
		Call	(703) 527-3887 (International)

Section II. Composition and Information on Ingredients					
Chemical Name		CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Diethylene Glycol Bis(3-aminopropyl) Ether		4246-51-9	Min. 96.0 (GC)		Rat LD $_{50}$ (oral) 4290mg/kg Rat LD $_{50}$ (oral) 4290 $\mu$ l/kg Rabbit LD $_{50}$ (dermal) 2500 $\mu$ l/kg

Section III.	Hazards Identification
Acute Health Effects	Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	CARCINOGENIC EFFECTS: Not available.  MUTAGENIC EFFECTS: Not available.  TERATOGENIC EFFECTS: Not available.  DEVELOPMENTAL TOXICITYNot available.  Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Section IV.	First Aid Measures
Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	Wash with soap and water. Get medical attention if irritation develops.
Inhalation	If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
Ingestion	DO NOT INDUCE VOMITING. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. SEEK IMMEDIATE MEDICAL ATTENTION in case of ingestion of a radioactive material.

Section V. Fire and Explosion Data				
Flammability	May be combustible at high temperature.	Auto-Ignition	Not available.	
Flash Points	>109°C (228.2°F).	Flammable Limits	Not available.	
Combustion Products	These products are toxic carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ).			
Fire Hazards	Not available.			
Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.			
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Consult with local fire authorities before attern		operations.	

Instructions

## Section VI.

Spill Cleanup

Accidental Release Measures

Corrosive liquid.

Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT get water inside container. DO NOT touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal.

### Section VII. Handling and Storage

Handling and Storage Information CORROSIVE. Keep container dry. Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. DO NOT ingest. Do not breathe gas/fumes/vapor/spray. Never add water to this product. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively. Always store away from incompatible compounds such as oxidizing agents, acids.

# Section VIII. Exposure Controls/Personal Protection

**Engineering Controls** 

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.

Personal Protection

Face shield. Lab coat. Vapor respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent.



**Exposure Limits** 

Not available.

Section IX. Physical and Chemical Properties					
Physical state @ 20°C	Liquid. (Clear, colorless.)	Solubility	Not available.		
Specific Gravity	1.005 (water=1)				
Molecular Weight	220.31	Partition Coefficient	Not available.		
Boiling Point	146 to 148°C (294.8 to 298.4°F) @ 4mm Hg	Vapor Pressure	Not available.		
Melting Point	Not available.	Vapor Density	Not available.		
Refractive Index	Not available.	Volatility	Not available.		
Critical Temperature	Not available.	Odor	Not available.		
Viscosity	Not available.	Taste	Not available.		

# Section X. Stability and Reactivity Data

Stability

This material is stable if stored under proper conditions. (See Section VII for instructions)

Conditions of Instability

Avoid excessive heat and light.

Incompatibilities

Reactive with strong oxidizing agents, strong acids.

### Section XI. Toxicological Information

RTECS Number

ID6475000

Routes of Exposure

Eye Contact. Ingestion. inhalation. Skin contact.

Toxicity Data

Rat  $LD_{50}$  (oral) 4290mg/kg Rat  $LD_{50}$  (oral) 4290 $\mu$ l/kg Rabbit  $LD_{50}$  (dermal) 2500 $\mu$ l/kg

Chronic Toxic Effects

CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITYNot available.

Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Acute Toxic Effects

Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Emergency phone number (800) 424-9300

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Section XII. **Ecological Information** 

Ecotoxicity

Not available.

**Environmental Fate** 

Not available.

#### Section XIII. **Disposal Considerations**

Waste Disposal

Recycle to process, if possible. Consult your local regional authorities. You may be able to dissove or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and locl regulations when disposing of the substance.

#### Section XIV. Transport Information

DOT Classification

Class 8: Corrosive material

PIN Number

UN2735

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Proper Shipping Name

Amines, liquid, corrosive, n.o.s.

Packing Group (PG)

DOT Pictograms



#### Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory

This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list.

(EPA)

WHMIS Classification

CLASS E: Corrosive liquid.

(Canada)

224-207-2

EINECS Number (EEC) **EEC Risk Statements** 

R34- Causes burns.

Japanese Regulatory Data

Not available.

#### Section XVI. Other Information

Version 1.0

Validated on 2/15/2001.

Printed 2/9/2005.

#### Notice to Reader

TCI laboratory 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 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 MSDS sheets 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 MSDS sheets 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, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local

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