

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	The health risks of this compound have not been fully determined. Exposure may cause irritation of the skin, eyes, and respiratory system.	   

Section I. Chemical Product and Company Identification

Chemical Name	Triethylene Glycol Monoethyl Ether		
Catalog Number	E0167	Supplier	TCI America 9211 N. Harborgate St. Portland OR 1-800-423-8616
Synonym	Ethoxytriglycol		
Chemical Formula	HO(CH ₂ CH ₂ O) ₃ C ₂ H ₅		
CAS Number	112-50-5	In case of Emergency Call	Chemtrec® (800) 424-9300 (U.S.) (703) 527-3887 (International)

Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Triethylene Glycol Monoethyl Ether	112-50-5	Min. 95.0 (GC)	Not available.	Rat LD ₅₀ (oral) 7750mg/kg Mouse LD ₅₀ (oral) 5799mg/kg Rabbit LD ₅₀ (dermal) 8000mg/kg

Section III. Hazards Identification

Acute Health Effects	No specific information is available in our data base regarding the toxic effects of this material for humans. However, exposure to any chemical should be kept to a minimum. Skin and eye contact may result in irritation. May be harmful if inhaled or ingested. Always follow safe industrial hygiene practices and wear proper protective equipment when handling this compound.
Chronic Health Effects	CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY Not available. There is no known effect from chronic exposure to this product. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. DO NOT use an eye ointment. Flush eyes with running water for a minimum of 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention. Treat symptomatically and supportively.
Skin Contact	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. Seek medical attention. Treat symptomatically and supportively. Wash any contaminated clothing before reusing.
Inhalation	If the victim is not breathing, perform artificial respiration. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention. Treat symptomatically and supportively.
Ingestion	INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt, or waistband. If the victim is not breathing, administer artificial respiration. 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 and, if possible, show the chemical label. Treat symptomatically and supportively.

Section V. Fire and Explosion Data

Flammability	Combustible.	Auto-Ignition	Not available.
Flash Points	126°C (258.8°F).	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO ₂).		
Fire Hazards	No specific information is available regarding the flammability of this compound in the presence of various materials.		
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. No additional information is available regarding the risks of explosion.		
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemicals, CO ₂ , water spray or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.		

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Emergency phone number (800) 424-9300

Section VI. Accidental Release Measures

Spill Cleanup Instructions	Keep away from heat and sources of ignition. Mechanical exhaust required. Stop leak if without risk. Finish cleaning the spill by rinsing any contaminated surfaces with copious amounts of water. Consult federal, state, and/or local authorities for assistance on disposal.
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Section VII. Handling and Storage

Handling and Storage Information	Keep away from heat and sources of ignition. 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 breathe gas, fumes, vapor or spray. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Treat symptomatically and supportively. Avoid contact with skin and eyes. Always store away from incompatible compounds such as oxidizing agents.
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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.
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Personal Protection	Splash goggles. Lab coat. Vapor respirator. Boots. Gloves. A MSHA/NIOSH approved respirator must be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
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Exposure Limits	Not available.
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Section IX. Physical and Chemical Properties

Physical state @ 20°C	Colorless liquid.	Solubility	Miscible with water, and most organic solvents.
Specific Gravity	1.02		
Molecular Weight	178.23	Partition Coefficient	Not available.
Boiling Point	255°C (491°F)	Vapor Pressure	Not available.
Melting Point	Not available.	Vapor Density	Not available.
Refractive Index	1.436 @ 25°C	Volatility	Not available.
Critical Temperature	Not available.	Odor	Odorless.
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)
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Conditions of Instability	Avoid excessive heat and light.
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Incompatibilities	Reactive with oxidizing agents.
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Section XI. Toxicological Information

RTECS Number	KK8950000
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Routes of Exposure	Eye contact. Inhalation. Ingestion.
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Toxicity Data	Rat LD ₅₀ (oral) 7750mg/kg Mouse LD ₅₀ (oral) 5799mg/kg Rabbit LD ₅₀ (dermal) 8000mg/kg
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Chronic Toxic Effects	CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY Not available. There is no known effect from chronic exposure to this product. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.
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Acute Toxic Effects	No specific information is available in our data base regarding the toxic effects of this material for humans. However, exposure to any chemical should be kept to a minimum. Skin and eye contact may result in irritation. May be harmful if inhaled or ingested. Always follow safe industrial hygiene practices and wear proper protective equipment when handling this compound.
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Section XII. Ecological Information

Ecotoxicity Not available.

Environmental Fate Triethylene glycol monoethyl ether's production and use as a solvent in lacquers and paints may result in its release to the environment through various waste streams. If released to the atmosphere, triethylene glycol monoethyl ether will mainly exist in the vapor phase in the ambient atmosphere based on an estimated vapor pressure of 2.2×10^{-3} mm Hg at 25°C. Vapor-phase triethylene glycol monoethyl ether is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals with an estimated half-life of about 8 hours. An estimated Koc of 10 suggests that triethylene glycol monoethyl ether will have very high mobility in soil. Volatilization of triethylene glycol monoethyl ether is not expected from either moist or dry soil surfaces, based on its estimated values for Henry's Law constant and vapor pressure, respectively. Biodegradation may be an important fate process for this compound in both soil and water. Limited screening study data indicate that triethylene glycol monoethyl ether will biodegrade readily under aerobic conditions; 38, 90, 94, and 100% degradation was reported for 5, 10, 15, and 20 days, respectively, using the BOD test. Triethylene glycol monoethyl ether is not expected to adsorb to suspended matter in the water column based on its Koc value or to volatilize from water surfaces given its Henry's Law constant. Bioconcentration in aquatic organisms should not occur based on an estimated BCF value of 0.1. Exposure to triethylene glycol monoethyl ether may occur occupationally during its production or during its use as a solvent through respiratory or dermal routes. The general population may be exposed to triethylene glycol monoethyl ether through the ingestion of contaminated drinking water and through inhalation or dermal routes from the use of solvents and paints. (SRC)

Section XIII. Disposal Considerations

Waste Disposal Recycle to process, if possible. Consult your local or regional authorities. 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. Observe all federal, state, and local regulations when disposing of this substance.

Section XIV. Transport Information

DOT Classification Not a DOT controlled material (United States).

PIN Number Not applicable.

Proper Shipping Name Not applicable.

Packing Group (PG) Not applicable.

DOT Pictograms

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

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

WHMIS Classification (Canada) Not available.

EINECS Number (EEC) Not available.

EEC Risk Statements Not available.

Japanese Regulatory Data Not available.

Section XVI. Other Information

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Validated on 3/24/1998.
Printed 2/16/2005.

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 regulations.