

tetraethylene glycol 112-60-7 MSDS

Name:	Tetraethylene glycol 99.5% Material Safety Data Sheet
Synonym:	Ethanol, 2,2'-(oxybis(ethyleneoxy))di
CAS:	112-60-7

Section 1 - Chemical Product

MSDS Name: Tetraethylene glycol 99.5% Material Safety Data Sheet

Synonym: Ethanol, 2,2'-(oxybis(ethyleneoxy))di

Section 2 - COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	content	EINECS#
112-60-7	Tetraethylene glycol	99.5	203-989-9

Hazard Symbols: None Listed.

Risk Phrases: None Listed.

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Not available.

Potential Health Effects

Eye:

Causes eye irritation.

Skin:

Causes skin irritation.

Ingestion:

May cause irritation of the digestive tract.

Inhalation:

May cause respiratory tract irritation.

Chronic:

No information found.

Section 4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water.

Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration.

If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

Antidote: None reported.

Section 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Combustible material when exposed to heat or flames.

Extinguishing Media:

In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed.

Avoid ingestion and inhalation.

Storage:

Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 112-60-7: Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: colorless to pale straw colored

Odor: None reported.

pH: Not available.

Vapor Pressure: 0.01 hPa @ 20 C

Viscosity: 44.9 mPa 25.00 deg

Boiling Point: 324.0 - 330.0 deg C @ 760.00m

Freezing/Melting Point: - 4.10 - - 0.00 deg

Autoignition Temperature: Not available.

Flash Point: 176 deg C (348.80 deg F)

Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

Decomposition Temperature:

Solubility in water: Miscible.

Specific Gravity/Density: 1.1250g/cm³

Molecular Formula: C₈H₁₈O₅

Molecular Weight: 194.23

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, strong oxidants.

Incompatibilities with Other Materials:

Strong oxidizing agents - strong bases.

Hazardous Decomposition Products:

Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, acrid smoke and fumes.

Hazardous Polymerization: Has not been reported.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 112-60-7: XC2100000 LD50/LC50:

CAS# 112-60-7: Draize test, rabbit, eye: 500 mg Mild; Oral, rat: LD50 = 28900 uL/kg; Oral, rat:

LD50 = 10000 mg/kg; Skin, rabbit: LD50 = >20 gm/kg.

Carcinogenicity:

Tetraethylene glycol - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Fish: Bluegill/Sunfish: LC50 = >5.0 mg/L; 24 Hr.; 12.8 degrees C
Fish: Goldfish: LC50 = >5.0 mg/L; 24 Hr.; 12.8 degrees C
Fish: Rainbow trout: LC50 = >5.0 mg/L; 24 Hr.; 12.8 degrees C

Section 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - TRANSPORT INFORMATION

IATA

Not regulated as a hazardous material.

IMO

Not regulated as a hazardous material.

RID/ADR

Not regulated as a hazardous material.

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 112-60-7: 0

Canada

CAS# 112-60-7 is listed on Canada's DSL List.

CAS# 112-60-7 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 112-60-7 is listed on the TSCA inventory.

SECTION 16 - ADDITIONAL INFORMATION

N/A