



## SAFETY DATA SHEET

**1. Identification of the Substance and Company**  
**Ethylene Glycol (Various Aqueous Blends)**  
**MSDS No.: I001**

**Prepared by: M. Ebers**

**NFPA 704 HAZARD RATING:**  
**HEALTH: 2**  
**FIRE: 1**  
**REACTIVITY: 0**

**Date Created: January 26, 2006**      **Date Revised: NA**

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### 2. Composition/Information on Ingredients

Hazardous Component(s)	EEC No.	CAS No.	% By Wt.	Symbol	R Phrases
Ethylene Glycol	203-21-1	107-21-1	10 - 50	X <sub>n</sub>	22
Diethylene Glycol	203-872-2	111-46-6	10 - 40	X <sub>n</sub>	22
Triethylene Glycol	203-95-2	112-27-6	10 - 25	[X <sub>n</sub> ]	[22]
Water	231-791-2	7732-18-5	40 - 70	NA	NA

### 3. Hazards Identification

Irritating to skin, eyes and respiratory tract. Harmful if swallowed.

### 4. First Aid Measures

**Eye Contact:** Flush eyes immediately with water for at least 15 minutes. Get medical attention.

**Skin Contact:** Flush skin immediately with plenty of water for at least 15 minutes. Get medical attention if effects occur.

**Inhalation:** Remove patient to fresh air. If not breathing, give artificial respiration. Get medical attention if effects occur.

**Ingestion:** Do not induce vomiting. Get medical attention. Do not give anything by mouth to an unconscious person. If conscious, drink large quantity of milk or water.

**Note to Physician:** Antidotes include ethanol, orally; calcium gluconate/glucose, intravenously and 4-methylpyrazole, either orally or intravenously. Consult standard literature for details of treatment.

### 5. Fire-Fighting Measures

**Flash Point:** > 232°F (111°C) (TCC)

**Special Hazards:** Irritating and toxic gases or fumes may be released during a fire.

**Extinguishing Media:** Dry chemical, foam, carbon dioxide, water fog

**Special Fire Fighting Procedures:** Firefighters should wear full fire-fighting turn-out gear (full Bunker gear) including NIOSHA-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

### 6. Accidental Release Measures

Ensure suitable personal protection during removal of spillages. Shut off ignition sources. Spills should be contained or absorbed on appropriate material and placed in a container for disposal. Do not flush into sewers. Local regulations should be observed.

### 7. Handling and Storage

#### 7.1 Handling

Do not take internally. Ensure all containers are labeled. Keep the containers closed when not in use.

#### 7.2 Storage

Store this material in a cool, well-ventilated place. Do not store in galvanized steel.

### 8. Exposure Control/Personal Protection

#### 8.1 Occupational Exposure Limits

Ethylene glycol: ACGIH TLV = 100 mg/m<sup>3</sup> TWA, aerosol, Ceiling

#### 8.2 Personal Protection

**Respirator Protection:** NIOSH approved respiratory protection should be worn if established exposure limits (Sec. 8.1) are exceeded.

**Eye Protection:** Chemical splash goggles.

**Protective Gloves:** Such as Nitrile, polyethylene or PVC gloves.

**Other Protective Clothing and Equipment:** Rubber apron and rubber boots recommended.

**Ventilation:** Adequate ventilation to maintain air concentrations below established limits.

### 9. Physical and Chemical Properties

**Solubility in Water:** Complete

**Appearance/Odor:** Yellow to amber liquid/ Slight odor

**Specific Vapor Density:** ND

**Vapor Pressure:** ND

**Specific Gravity:** ND

**Freezing Point:** ND

**Boiling Point:** ND

### 10. Stability and Reactivity

**Stability:** Stable

**Hazardous Polymerization:** Will not occur.

**Incompatible Materials:** Strong oxidizing agents, strong acids and strong bases.

**Conditions to Avoid:** Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

**Hazardous Decomposition or Byproducts:** Compounds of carbon, hydrogen and oxygen, including carbon monoxide and other toxic gases. The exact composition will depend on the causes and conditions of decomposition..

### 11. Toxicological Information

#### 11.1 Acute (Primary Routes of Exposure)

**Eyes:** May causes slight, temporary irritation.

**Skin:** May cause irritation with prolonged contact.

**Inhalation:** At room temperature, not a likely route of exposure. If, however, material is heated or area is poorly ventilated, vapor/mist may accumulate and cause respiratory irritation and symptoms such as headache and nausea.

**Ingestion:** Expected to be moderate in humans even though tests with animals show a lower degree of toxicity. The lethal dose in adult humans for ethylene glycol is approximately 3 fluid ounces. May cause nausea or vomiting. May cause abdominal discomfort or diarrhea.

**11.2 Long Term Exposure:** Over exposure to this material has been suggested as a cause of reproduction effects, kidney damage, liver damage in laboratory animals tested at high dose levels:. Overexposure to this material has been suggested as a cause of kidney and liver damage in humans.

**Carcinogenicity:** IARC, NTP and OSHA do not list these materials as carcinogenic.

### 12. Ecological Information:

Material is essentially non-toxic to aquatic life. Material is readily biodegradable.

### 13. Disposal Considerations

Do not dump into sewers, onto ground or into any body of water. Disposal of unwanted product should be done in accordance with local, state or national legislation. For additional guidance, contact the State Water Board or the Regional Office of the EPA. This product is not considered a hazardous waste under 40 CFR 261.33(e) or (f) or 40 CFR 261 Subpart C.

### 14. Transport Information

**Ground/Sea/Air:** Other Regulated Substances, Liquid, NOS (Ethylene Glycol), 9, NA 3082, PG III, RQ = 5,000 lbs.

### 15. Regulatory Information

Ethylene glycol listed as a Hazardous Substance under CERCLA (40 CFR 302.4) with an RQ of 5,000 lbs.

Ethylene Glycol is classified as an Immediate and Delayed Hazard as per SARA Title III Section 311/312 (40 CFR 355.40).

Ethylene Glycol is subject to the reporting requirements of Section 313 of Title III of SARA (40 CFR Part 372.65).

All ingredients are TSCA listed.

### 16. Other Information

The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product or where instruction or recommendations are not followed.

NA - Not Applicable      ND - No Data