



## Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation** Ethylene Glycol, Reagent Grade

**Product Number** R2944500

**Other Identifying Product Numbers** R2944500-20F, R2944500-4C, R2944500-500C

#### 1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

#### 1.3. Details of the Supplier of the Safety Data Sheet

**Company** Ricca Chemical Company

**Address** 412 West Fork Drive

Arlington, TX 76012 USA

**Telephone** 888-467-4222

#### 1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA)

800-424-9300

CHEMTREC (International)

1+ 703-527-3887

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### SECTION 2: Hazard(s) Identification

#### 2.1. Classification of the Substance or Mixture

| Hazard Class                                     | Category   | Hazard Statements | Precautionary Statements                    |
|--------------------------------------------------|------------|-------------------|---------------------------------------------|
| Acute Toxicity - Oral                            | Category 4 | H302              | P264,P270,P301+P312,P330,P501               |
| Specific Target Organ Toxicity - Single Exposure | Category 1 | H370              | P260,P264,P270,P308+P311,<br>P321,P405,P501 |

#### 2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

NOTE: Hazard statements may be combined on labels to improve clarity and readability.

| Hazard Number | Hazard Statement         |
|---------------|--------------------------|
| H302          | Harmful if swallowed     |
| H370          | Causes damage to kidneys |

Precautionary Statements:

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

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### Prevention

| Precautionary Number | Precautionary Statement                               |
|----------------------|-------------------------------------------------------|
| P260                 | Do not breathe fumes or mist.                         |
| P264                 | Wash hands, arms, and face thoroughly after handling. |
| P270                 | Do not eat, drink or smoke when using this product.   |

### Response

| Precautionary Number | Precautionary Statement                                          |
|----------------------|------------------------------------------------------------------|
| P301+P312            | IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. |
| P308+P311            | If exposed or concerned: Call a poison center or doctor.         |
| P330                 | Rinse mouth.                                                     |

### Storage

| Precautionary Number | Precautionary Statement |
|----------------------|-------------------------|
| P405                 | Store locked up.        |

### Disposal

| Precautionary Number | Precautionary Statement                                                                                                         |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------|
| P501                 | Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations. |

### 2.3. Hazards not Otherwise Classified

No other hazards identified.

### 2.4. Ingredients of Unknown Acute Toxicity

## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Substance

| Chemical Name (IUPAC) | Common Name and Synonyms | CAS Number | Weight% |
|-----------------------|--------------------------|------------|---------|
| ethane-1,2-diol       | Ethylene Glycol; glycol  | 107-21-1   | 100.00  |

## SECTION 4: First-Aid Measures

### 4.1. Description of Necessary Measures

**Eye Contact:** May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

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**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Dilute immediately with water or milk. Induce vomiting. Call a physician.

**Inhalation:** Not expected to require first aid. If necessary, remove to fresh air.

**Skin Contact:** May cause irritation, allergic rash. Absorption is possible.

## 4.2. Most Important Symptoms and Effects, Acute and Delayed

Harmful if swallowed Harmful or fatal if swallowed. Lethal dose in humans about 1.4 mL/kg or 100 mL. Harmful if absorbed through skin. May cause allergic skin reaction. May irritate eyes, skin and respiratory tract. Affects central nervous system. Wash areas of contact with plenty of water. If ingested, dilute with water and induce vomiting. Call a physician. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: May cause irritation, allergic rash. Absorption is possible. CHRONIC EFFECTS / CARCINOGENICITY: Repeated or high exposures may cause kidney damage, brain damage or skin allergy.

## 4.3. Immediate Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Dilute immediately with water or milk. Induce vomiting. Call a physician.

## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing Media

Water spray, fog, carbon dioxide, dry chemical powder, alcohol foam, polymer foam

### 5.2. Specific Hazards Arising from the Substance or Mixture in a Fire

Moderate explosion hazard when in the form of vapor. Dangerous fire hazard when exposed to heat.

### 5.3. Special Protective Equipment and Precautions for Firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## SECTION 6: Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate PPE for the size and nature of the spill. As a general rule, wear safety glasses and gloves.

### 6.2. Cleanup and Containment Methods and Materials

Remove all sources of ignition. Contain spill. Do not flush to sewer. Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal in an approved waste disposal facility. Ventilate area of spill. Have extinguishing agent available in case of fire. Use non-sparking tools and equipment. Dispose of in accordance with local regulations.

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### SECTION 7: Handling and Storage

#### 7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

### SECTION 8: Exposure Controls / Personal Protection

#### 8.1. Exposure Limits

##### U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

No limits found.

##### U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

No limits found.

##### U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

##### U.S. OSHA - Specifically Regulated Chemicals

No limits found.

##### ACGIH - Threshold Limit Values - Ceilings (TLV-C)

No limits found.

##### ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

| Chemical Name   | CAS Number | Exposure Limit                                                                                       |
|-----------------|------------|------------------------------------------------------------------------------------------------------|
| Ethylene Glycol | 107-21-1   | 50 ppm STEL (vapor fraction); 10 mg/m <sup>3</sup> STEL (inhalable particulate matter, aerosol only) |

##### ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

| Chemical Name   | CAS Number | Exposure Limit              |
|-----------------|------------|-----------------------------|
| Ethylene Glycol | 107-21-1   | 25 ppm TWA (vapor fraction) |

#### 8.2. Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

#### 8.3. Individual Protective Measures and Personal Protective Equipment

**Respiratory Protection:** Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn.

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**Skin Protection:** Chemical resistant gloves.

**Eye Protection:** Safety glasses or goggles.

## SECTION 9: Physical and Chemical Properties

### 9.1. Basic Physical and Chemical Properties

**Physical State:** Liquid

**Color:** Colorless viscous

**Odor:** Data not available.

**Odor Threshold:** Data not available.

**Melting/Freezing Point:** -12 - -11°C

**Boiling Point/Range:** Approximately 197°C

**Flammability:** Data not available.

**Flammability/Explosive Limits:** 3.2% - 15.3%

**Flash Point:** Not flammable

**Auto-Ignition Temperature:** Data not available.

**Decomposition Temperature:** Data not available.

**pH:** Data not available.

**Kinematic Viscosity:** Data not available.

**Solubility:** Data not available.

**Vapor Pressure:** 0.1 hPa at 20°C

**Evaporation Rate:** Data not available.

**Relative Density:** Data not available.

**Relative Vapor Density:** 2.14

**Particle Characteristics:** Data not available.

**Partition Coefficient n-octanol/water, log** -1.93

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

### 10.2. Possibility of Hazardous Reactions

Data not available.

### 10.3. Conditions to Avoid and Incompatible Materials

Strong oxidizing agents such as Potassium Permanganate, Chromium Trioxide, Sodium Peroxide, Nitrates, Chlorates, and Perchlorates.

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### 10.4. Hazardous Decomposition Products

Will not occur.

## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

#### Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 500 mg/kg(calculated)

| Chemical Name   | CAS Number | Toxicity                                                           |
|-----------------|------------|--------------------------------------------------------------------|
| Ethylene Glycol | 107-21-1   | Oral LD50 Acute Toxicity Estimate 500 mg/kg (Source: Canada_WHMIS) |

#### Acute Toxicity - Dermal Exposure:

Not acutely toxic.

| Chemical Name   | CAS Number | Toxicity                                        |
|-----------------|------------|-------------------------------------------------|
| Ethylene Glycol | 107-21-1   | Dermal LD50 Rat 10600 mg/kg (Source: JAPAN_GHS) |

#### Acute Toxicity - Inhalation Exposure:

Not acutely toxic.

| Chemical Name   | CAS Number | Toxicity                                                  |
|-----------------|------------|-----------------------------------------------------------|
| Ethylene Glycol | 107-21-1   | Inhalation LC50 Rat >2.5 mg/L 6 h (aerosol, Source: ECHA) |

### 11.2 Carcinogenicity:

#### International Agency for Research on Cancer (IARC)

| Chemical Name | CAS Number | Classification |
|---------------|------------|----------------|
|               |            | No data found. |

#### National Toxicology Program (NTP)

| Chemical Name   | CAS Number | Classification                                                                                              |
|-----------------|------------|-------------------------------------------------------------------------------------------------------------|
| Ethylene Glycol | 107-21-1   | Male Rat - Not Tested; Female Rat - Not Tested; Male Mice - No Evidence; Female Mice - No Evidence (TR-413) |

#### U.S. OSHA specifically regulated carcinogens

| Chemical Name | CAS Number | Classification |
|---------------|------------|----------------|
|               |            | No data found. |

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### 11.3 Additional Toxicology Information:

Harmful if swallowed. Causes damage to kidneys.

## SECTION 12: Ecological Information

### 12.1. Ecotoxicity

| Chemical Name   | CAS Number | Species          | Exposure | Toxicity                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------|------------|------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethylene Glycol | 107-21-1   | Freshwater Algae | Acute    | EC50 96 h <i>Pseudokirchneriella subcapitata</i> 6500 - 13000 mg/L (IUCLID)                                                                                                                                                                                                                                                                                                                              |
| Ethylene Glycol | 107-21-1   | Freshwater Fish  | Acute    | LC50 96 h <i>Oncorhynchus mykiss</i> 41000 mg/L (IUCLID); LC50 96 h <i>Oncorhynchus mykiss</i> 14 - 18 mL/L [static] (EPA); LC50 96 h <i>Lepomis macrochirus</i> 27540 mg/L [static] (EPA); LC50 96 h <i>Oncorhynchus mykiss</i> 40761 mg/L [static] (IUCLID); LC50 96 h <i>Pimephales promelas</i> 40000 - 60000 mg/L [static] (EPA); LC50 96 h <i>Poecilia reticulata</i> 16000 mg/L [static] (IUCLID) |
| Ethylene Glycol | 107-21-1   | Water Flea       | Acute    | EC50 48 h <i>Daphnia magna</i> 46300 mg/L (IUCLID)                                                                                                                                                                                                                                                                                                                                                       |

### 12.2. Persistence and Degradability

Data not available.

### 12.3. Bioaccumulative Potential

Data not available.

### 12.4. Mobility in soil

Data not available.

### 12.5. Other Adverse Ecological Effects

Data not available.

## SECTION 13: Disposal Considerations

### 13.1. Waste Treatment Methods

Data not available.



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### SECTION 14: Transportation Information

#### 14.1 Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT regulations.

#### 14.2 Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.

#### 14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG regulations.

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### SECTION 15: Regulatory Information

#### 15.01. Occupational Safety and Health Administration (OSHA) Hazards

| Chemical Name  | CAS Number | Regulatory Information |
|----------------|------------|------------------------|
| No data found. |            |                        |

#### 15.02. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

| Chemical Name  | CAS Number | RQ |
|----------------|------------|----|
| No data found. |            |    |

#### 15.03. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

| Chemical Name   | CAS Number | Regulatory Information             |
|-----------------|------------|------------------------------------|
| Ethylene Glycol | 107-21-1   | 5000 lb final RQ; 2270 kg final RQ |

#### 15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

| Chemical Name   | CAS Number | List               | Regulatory Information         |
|-----------------|------------|--------------------|--------------------------------|
| Ethylene Glycol | 107-21-1   | Emission Reporting | 1.0 % de minimis concentration |

#### 15.05. Massachusetts Right-to-Know Substance List

| Chemical Name   | CAS Number | Regulatory Information |
|-----------------|------------|------------------------|
| Ethylene Glycol | 107-21-1   | Present                |

#### 15.06. Pennsylvania Right-to-Know Hazardous Substances

| Chemical Name   | CAS Number | Regulatory Information |
|-----------------|------------|------------------------|
| Ethylene Glycol | 107-21-1   | Environmental hazard   |

#### 15.07. New Jersey Worker and Community Right-to-Know Components

| Chemical Name   | CAS Number | Regulatory Information |
|-----------------|------------|------------------------|
| Ethylene Glycol | 107-21-1   | sn 0878                |

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### 15.08. California Proposition 65

| Chemical Name   | CAS Number | Regulatory Information                       |
|-----------------|------------|----------------------------------------------|
| Ethylene Glycol | 107-21-1   | developmental toxicity, 6/19/2015 (ingested) |

### 15.09. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

| Chemical Name   | CAS Number | List | Status  |
|-----------------|------------|------|---------|
| Ethylene Glycol | 107-21-1   | DSL  | Present |

### 15.10. United States of America Toxic Substances Control Act (TSCA) List

| Chemical Name   | CAS Number | Status           |
|-----------------|------------|------------------|
| Ethylene Glycol | 107-21-1   | Present (ACTIVE) |

### 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

| Chemical Name   | CAS Number | List   | Number    |
|-----------------|------------|--------|-----------|
| Ethylene Glycol | 107-21-1   | EINECS | 203-473-3 |

### 15.12. China - Inventory of Existing chemical Substances (IECSC)

| Chemical Name   | CAS Number | Status          |
|-----------------|------------|-----------------|
| Ethylene Glycol | 107-21-1   | Present [38204] |

### 15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

| Chemical Name   | CAS Number | List    | Status             |
|-----------------|------------|---------|--------------------|
| Ethylene Glycol | 107-21-1   | Annex 1 | Present [KE-13169] |

### 15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

| Chemical Name   | CAS Number | MITI No. |
|-----------------|------------|----------|
| Ethylene Glycol | 107-21-1   | (2)-230  |

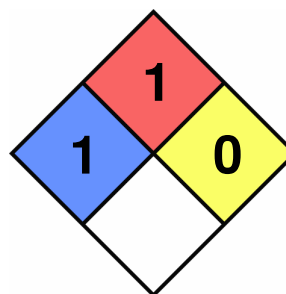
## SECTION 16: Other Information

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## 16.1 National Fire Protection Associate (NFPA) Rating

**Health:** 1  
**Flammability:** 1  
**Reactivity** 0  
**Special Hazard:**



## 16.2 Document Revision

**Last Revision Date:**  
2026-05-24

## DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.