Safety Data Sheet · OSHA HCS 2024

# Ethylene Glycol Inhibited ACS Grade

ACS Grade · 98.0-100.0% w/w ethylene glycol

| Standard | Revised | Emergency |
|---|---|---|
| OSHA HCS 2024 · GHS Rev. 7 | 2026-11-20 | Chemtel 1-800-255-3924 (24/7) |

## 1 Identification

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|---|---|
| Product Identifier | Ethylene Glycol Inhibited ACS Grade |
| Grade | ACS Grade |
| Concentration | 98.0-100.0% w/w ethylene glycol |
| CAS Number | Mixture (see Section 3) |
| Chemical Formula | C2H6O2 |
| Molecular Weight | 62.07 g/mol |
| Manufacturer | Alliance Chemical<br>204 South Edmond Street, Taylor, TX 76574 |
| Emergency Phone | Chemtel 1-800-255-3924 (24/7) |
| Synonyms | Inhibited ethylene glycol; inhibited monoethylene glycol (MEG); 1,2-ethanediol, inhibited |
| Recommended Use | Corrosion-inhibited ethylene glycol (ACS grade): laboratory heat-transfer baths and coolant formulation where an inhibited glycol is required. |
| Restrictions on Use | Not for food, drug or cosmetic use. Toxic if swallowed in quantity (it tastes sweet): keep away from children and pets, and do not store in food or drink containers. |

## 2 Hazard Identification



Irritant / harmful



Health hazard

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| Classification | Acute toxicity (oral), Category 4<br>Specific target organ toxicity, repeated exposure, Category 2 |
| Signal Word | **Warning** |
| Hazard Statements | H302 Harmful if swallowed<br>H373 May cause damage to organs through prolonged or repeated exposure |

**Precautionary Statements**

P260 Do not breathe dust, fume, gas, mist, vapors or spray.

P264 Wash hands and face thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P314 Get medical advice or attention if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents and container in accordance with local, regional, national, and international regulations.

Classification, hazard (H) and precautionary (P) statements and pictograms per OSHA HCS 2024 (29 CFR 1910.1200, Appendices A–C), aligned with GHS Rev. 7.

## 3 Composition / Information on Ingredients

| Component | CAS No. | Formula | Concentration |
|---|---|---|---|
| Ethylene Glycol | 107-21-1 | $C_2H_6O_2$ | 98.0-100.0% (w/w) |
| Corrosion inhibitor package (nitrite-containing hybrid organic-acid) | Mixture | Mixture | <2% (w/w) |
| Sodium Nitrite (in inhibitor package) | 7632-00-0 | $NaNO_2$ | <0.4% (w/w) |
| Triethanolamine (in inhibitor package) | 102-71-6 | $C_6H_{15}NO_3$ | <0.2% (w/w) |
| Sodium Benzoate (in inhibitor package) | 532-32-1 | $C_7H_5NaO_2$ | <0.06% (w/w) |
| Sodium Molybdate Dihydrate (in inhibitor package) | 10102-40-6 | $Na_2MoO_4 \cdot 2H_2O$ | <0.04% (w/w) |

Concentrations are nominal; lot-specific values appear on the Certificate of Analysis. Components not contributing to classification are omitted.

## 4 First-Aid Measures

**Eyes**
Rinse with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention immediately.

**Skin**
Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash with soap. Get medical attention immediately.

**Inhalation**
Move person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

**Ingestion**
Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

**Most Important Symptoms and Effects**
Ingestion may cause nausea, vomiting and abdominal pain; larger amounts may cause systemic poisoning.

**Immediate Medical Attention and Special Treatment**
Treat symptomatically. Get medical attention if symptoms develop or persist.

## 5 Fire-Fighting Measures

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| Suitable Extinguishing Media | Use water spray, alcohol-resistant foam, dry chemical, or CO2. Use measures appropriate to local circumstances. |
| Unsuitable Extinguishing Media | Do not use a solid water stream as it may scatter and spread fire. |
| Specific Hazards Arising from the Chemical | Containers may rupture when heated. |
| Protective Equipment | Wear self-contained breathing apparatus and full protective clothing. |
| Hazardous Combustion Products | Carbon monoxide and carbon dioxide on combustion; aldehydes and other carbonyl compounds when overheated. |

## 6 Accidental Release Measures

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| Personal Precautions | Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas. |
| Environmental Precautions | Prevent leakage or spillage from entering drains, sewers, or waterways. |
| Containment & Cleanup | Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations. |

## 7 Handling and Storage

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| Safe Handling | Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use. |
| Safe Storage | Store in a cool, dry, well-ventilated area. Keep away from incompatible materials (see Section 10). Keep containers tightly closed. |
| Specific Storage Precautions | Keep tightly closed (hygroscopic) in a cool, dry place away from oxidizers. Store separately from food and drink. |

## 8 Exposure Controls / Personal Protection

### Occupational Exposure Limits

| Limit | Value |
|---|---|
| ACGIH TLV | 25 ppm TWA / 50 ppm STEL; 10 mg/m$^3$ STEL (inhalable) |

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| Engineering Controls | Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use. |
| Eye/Face Protection | Wear chemical safety goggles or face shield. |
| Skin Protection | Wear chemical-resistant gloves and protective clothing. |
| Respiratory Protection | Use NIOSH-approved respirator if exposure limits are exceeded or irritation occurs. |

Exposure limits sourced from NIOSH Pocket Guide, OSHA 29 CFR 1910.1000 and ACGIH TLVs.

## 9 Physical & Chemical Properties

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| Appearance | Clear, colorless viscous liquid |
| Odor | Odorless |
| Odor Threshold | No data available |

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| pH | Typically 7.0-9.0 as a 50% solution in water (ASTM D1287); measured value reported on the lot Certificate of Analysis |
| Melting Point / Freezing Point | -13 °C (9 °F) |
| Boiling Point | 196–198 °C (385–388 °F) at 760 mmHg |
| Flash Point | 111 °C (232 °F), closed cup |
| Evaporation Rate | No data available |
| Flammability (solid, gas) | No data available |
| Upper/Lower Flammability or Explosive Limits | No data available |
| Vapor Pressure | 0.123 hPa (0.09 mmHg) at 25 °C |
| Vapor Density | No data available |
| Relative Density | 1.110–1.125 at 60 °F (water = 1) |
| Solubility | Completely miscible with water |
| Partition Coefficient (n-octanol/water) | log Kow -1.36 |
| Auto-ignition Temperature | 413 °C (775 °F) |
| Decomposition Temperature | No data available |
| Viscosity | 16.1 mPa·s at 25 °C |
| Particle Characteristics | Not applicable |
| Form | Liquid |
| Density | 1.115 g/cm$^3$ at 68 °F (USCG, 1999) |

Values shown reflect product-specific canonical data. Lot-specific ranges may vary; see the Certificate of Analysis for the shipped lot.

## 10 Stability and Reactivity

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| Reactivity | Not reactive under normal conditions of use and storage. |
| Chemical Stability | Stable under recommended storage conditions. |
| Possibility of Hazardous Reactions | None under normal processing conditions. |
| Conditions to Avoid | High heat (above 40 °C in storage), open flame, and moisture (hygroscopic). |
| Incompatible Materials | Strong oxidizing agents, strong acids and bases, aldehydes, alkali and alkaline-earth metals, aluminum compounds. |
| Hazardous Decomposition Products | Carbon monoxide and carbon dioxide on combustion; aldehydes and other carbonyl compounds when overheated. |

## 11 Toxicological Information

See below for route-specific acute toxicity data.

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| Likely Routes of Exposure | Inhalation, skin contact, eye contact, ingestion. |
| Symptoms | Ingestion may cause nausea, vomiting and abdominal pain; larger amounts may cause systemic poisoning. |
| Delayed and Chronic Effects | Prolonged or repeated exposure may damage organs. |

| Route | Value |
|---|---|

| Route | Value |
|---|---|
| LD50 Oral | 4,700–7,712 mg/kg (rat). Human lethal dose about 1,400–1,600 mg/kg, the basis for H302. |
| LD50 Dermal (rabbit) | > 10,600 mg/kg |
| LC50 Inhalation | > 2.5 mg/L (aerosol, 6 h) |

### Carcinogen Classification

| Agency | Status |
|---|---|
| IARC | Group 2A — probably carcinogenic to humans (Sodium nitrite; IARC agent: Ingested nitrate or nitrite under conditions that result in endogenous nitrosation, Vol. 94). |
| NTP | Not listed as carcinogen. |
| OSHA | No substance-specific standard in 29 CFR 1910 Subpart Z; not classified as a carcinogen under the Hazard Communication Standard (29 CFR 1910.1200) as supplied. See Section 2 and the scope note. |

*Scope: the IARC evaluation addressed nitrate or nitrite ingested under conditions that result in endogenous nitrosation, not this product as supplied; nitrites can react with secondary and tertiary amines to form nitrosamines, which are potentially carcinogenic.*

## 12 Ecological Information

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| Ecotoxicity | Daphnia EC50: 10000 mg/L (48 h, Daphnia magna (freshwater, static)) |
| Persistence & Degradability | Not persistent; low bioconcentration, not expected to volatilize |
| Bioaccumulative Potential | log Kow −1.36 |
| Mobility in Soil | Very high mobility in soil (estimated Koc ≈ 0.2) |

## 13 Disposal Considerations

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

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| EPA RCRA Waste Codes | Not a listed or characteristic hazardous waste as supplied; used glycol may pick up metals and become hazardous — test before disposal. |

## 14 Transport Information

**Not regulated** for transport under US DOT 49 CFR Subchapter C, IMDG, or IATA DGR in packages holding less than the reportable quantity below.

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| Hazardous substance (49 CFR 171.8) | A single package holding 5,000 lb (2,270 kg), about 530 US gal, or more of this product contains the reportable quantity (RQ) of a hazardous substance and is regulated as a hazardous material. |
| Reportable quantity (49 CFR 172.101 Appendix A) | Sodium nitrite — RQ 100 lb (45.4 kg); Ethylene glycol — RQ 5,000 lb (2,270 kg) |
| Shipping description (package at or above the RQ) | UN3082, Environmentally hazardous substance, liquid, n.o.s. (Sodium nitrite, Ethylene glycol), 9, III, RQ |

## 15 Regulatory Information

| Inventory / List | Status |
|---|---|
| California Proposition 65 | Listed as ethylene glycol (ingested) (since 2015-06-19) |
| US EPA TSCA Active Inventory | Listed |
| EPCRA SARA 313 (TRI) | Listed |
| CERCLA Reportable Quantity (RQ) | Ethylene glycol (CAS 107-21-1) 5,000 lb (2,270 kg), about 530 US gal. EPCRA Section 313 (TRI) listed, de minimis 1.0%. |

SARA 311/312 hazard categories correspond to the GHS classification in Section 2. Data retrieved as of: California Proposition 65 2026-11-02; US EPA TSCA Active Inventory 2026-11-02; EPCRA SARA 313 (TRI) 2026-11-02.

## 16 Other Information

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| Revision Date | 2026-11-20 |
| Format | 16-section format per OSHA HCS 2024 (29 CFR 1910.1200, Appendix D), aligned with GHS Rev. 7. |

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