# SAFETY DATA SHEET

**Propylene Glycol 60% Inhibited**

Revised: 11/04/2026

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Propylene Glycol 60% Inhibited

**Synonyms:** Inhibited propylene glycol 60% premix; PG 60/40 heat-transfer fluid; propane-1,2-diol aqueous solution with corrosion inhibitors

**CAS Number:** Mixture (see Section 3) | **Product Code:** PG60-INH

**Grade/Purity:** Inhibited heat-transfer fluid (nitrite-containing hybrid organic-acid inhibitor package). Not USP/NF grade.

**Product Type:** Glycols

**Product Use:** Closed-loop heat-transfer and freeze-protection fluid (HVAC, chilled-water, hydronic and process cooling)

**Restrictions on Use:** Not for food-contact, incidental-food-contact or potable-water service; not USP/NF grade.

**Manufacturer/Supplier:** Alliance Chemical, 204 South Edmond St, Taylor, Texas 76574

**Information:** 512-365-6838 | www.alliancechemical.com

**Emergency:** CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

## 2. HAZARDS IDENTIFICATION

**Signal Word: None**

**GHS Pictograms:**

None assigned

**Hazard Statements:**

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|---|---|
| Not Classified | Not classified as hazardous under 29 CFR 1910.1200 (GHS). Classification derived from ingredient data by the additivity and cut-off methods of 29 CFR 1910.1200 Appendix A; the finished mixture has not been tested as a whole. Acute oral toxicity: calculated ATEmix approx. 11,300 mg/kg (propylene glycol, triethanolamine and sodium nitrite each at its maximum content, sodium nitrite 0.48%), well above the 2,000 mg/kg upper limit of the lowest oral category; not classified. Carcinogenicity: no category assigned. The IARC Group 2A entry in Section 11 is an exposure circumstance, ingested nitrate or nitrite under conditions that result in endogenous nitrosation, not sodium nitrite as a substance, and sodium nitrite has no harmonized carcinogenicity classification (EU CLH: Ox. Sol. 3, Acute Tox. 3, Eye Irrit. 2, Aquatic Acute 1). |

**Precautionary Statements:**

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| Not Classified | No specific GHS precautionary statements required. |

**Hazards Not Otherwise Classified:** None. Spilled product is slippery.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

| COMPONENT | % MIN | % MAX | CAS # | EINECS# / ELINCS# | FORMULA | MOLECULAR WEIGHT |
|---|---|---|---|---|---|---|
| Propylene Glycol | 60.0 (v/v) | 61.0 (v/v) | 57-55-6 | 200-338-0 | $C_3H_8O_2$ | 76.09 g/mol |
| Corrosion inhibitor package (nitrite-containing hybrid organic-acid) | 2.0 | 2.4 | Mixture | | Mixture | Varies |
| — of which Sodium Nitrite | 0.2 | 0.48 | 7632-00-0 | 231-555-9 | $NaNO_2$ | 69.00 g/mol |
| — of which Triethanolamine | 0 | 0.24 | 102-71-6 | 203-049-8 | $C_6H_{15}NO_3$ | 149.19 g/mol |
| — of which Sodium Benzoate | 0 | 0.08 | 532-32-1 | 208-534-8 | $C_7H_5NaO_2$ | 144.10 g/mol |
| — of which Sodium Molybdate Dihydrate | 0 | 0.05 | 10102-40-6 | 231-551-7 (anhydrous) | $Na_2MoO_4 \cdot 2H_2O$ | 241.95 g/mol |
| Water | Balance | | 7732-18-5 | 231-791-2 | $H_2O$ | 18.02 g/mol |

Propylene glycol is stated in % v/v (about 60.6–61.8 % w/w); every other component is % w/w. The corrosion inhibitor package is dosed at 2.2% (range 2.0–2.4%) by weight of the finished blend; component ranges above are calculated over that dose range from the inhibitor manufacturer's composition ranges. The remaining package ingredients (organic-acid corrosion inhibitors, less than 0.48% of the blend) are not listed as hazardous on the inhibitor manufacturer's SDS. Their specific chemical identity is withheld by the inhibitor manufacturer as a trade secret and is not held by Alliance Chemical. A treating physician or other health professional may request it through Alliance Chemical (512-365-6838), which will request it from the inhibitor manufacturer under 29 CFR 1910.1200(i).

## 4. FIRST-AID MEASURES

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| **Eyes** | Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Get medical advice if irritation persists. |
| **Skin** | Remove contaminated clothing. Wash skin with soap and water. Get medical advice if irritation develops. |
| **Inhalation** | Move to fresh air. Get medical advice if symptoms occur (not expected under normal use; product has low volatility). |
| **Ingestion** | Rinse mouth with water. Do not induce vomiting. Call a poison control center or physician if a large amount is swallowed. |
| **Most Important Symptoms** | Mild, transient eye or skin irritation on direct contact. Swallowing large amounts may cause nausea; nitrite ingestion in large amounts can cause methemoglobinemia (bluish skin, headache, dizziness). Delayed effects are not expected from incidental exposure at the concentrations present (see Section 11 regarding ingested nitrite). |
| **Medical Attention** | No immediate medical attention needed for incidental contact. For large ingestion, treat symptomatically; note the product contains sodium nitrite (0.2–0.48%). |

## 5. FIRE-FIGHTING MEASURES

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| **Suitable Media** | Use water spray, alcohol-resistant foam, dry chemical, or CO2. Use measures appropriate to local circumstances. |
| **Unsuitable Media** | None known. The product is an aqueous solution and does not burn; use media suited to the surrounding fire. |
| **Protective Equipment** | For fires involving surrounding materials, firefighters should wear self-contained breathing apparatus and full protective clothing. |
| **Combustion Products** | Aqueous solution; will not sustain combustion. If dried residue is involved in fire: carbon oxides, nitrogen oxides, sodium oxides. |

## 6. ACCIDENTAL RELEASE MEASURES

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| **Personal Precautions** | Use PPE as described in Section 8. Spilled product is slippery; keep unprotected people away from the spill until it is cleaned up. |
| **Environmental** | 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. |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.

**Occupational Exposure Limits:**

| COMPONENT | OSHA PEL | ACGIH TLV | NIOSH REL |
|---|---|---|---|
| Propylene Glycol (57-55-6) | Not established | Not established (OARS/AIHA WEEL 10 mg/m³ TWA, aerosol) | Not established |
| Triethanolamine (102-71-6) | Not established | 5 mg/m³ TWA | Not established |
| Sodium Molybdate Dihydrate (10102-40-6), as Mo | 5 mg/m³ TWA (soluble Mo compounds) | 0.5 mg/m³ TWA, respirable (soluble Mo compounds) | Not established |
| Sodium Nitrite (7632-00-0) | Not established | Not established | Not established |

Limits apply to mists/aerosols; exposure is not expected under normal closed-loop use.

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| **Eyes** | Wear chemical safety goggles or face shield. |
| **Skin** | Wear chemical-resistant gloves and protective clothing. |
| **Inhalation** | Use NIOSH-approved respirator if exposure limits are exceeded or irritation occurs. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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| **Appearance** | Clear, colorless to pale yellow liquid (not dyed) |
| **Odor** | Mild, characteristic |
| **Particle Characteristics** | Not Applicable |
| **pH** | Typically 7.0–9.0 (ASTM D1287); measured value reported on the lot Certificate of Analysis |
| **Melting Point** | Freeze point approx. −51.1 °C (−59.9 °F) at 60 % v/v propylene glycol |
| **Boiling Point** | approx. 107 °C (225 °F) at 760 mmHg |
| **Flash Point** | None (aqueous solution; does not sustain combustion) |
| **Vapor Pressure** | approx. 13 mmHg at 20 °C (water-dominated, estimated by Raoult's law) |
| **Vapor Density** | Not available (water-dominated) |
| **Odor Threshold** | Not available |
| **Auto-ignition / Decomposition Temperature** | Not applicable (aqueous) / not available |
| **Viscosity** | Not determined; increases with propylene glycol concentration |
| **Partition Coefficient (log Kow)** | Propylene glycol: −0.92 |
| **Specific Gravity** | 1.047 at 20/20 °C (water = 1); density 1.0448 g/cm³ at 20 °C. Calculated from formulation; measured values are reported on the lot Certificate of Analysis |
| **Solubility** | Fully miscible with water |
| **Molecular Formula** | $C_3H_8O_2$ (propylene glycol component) |
| **Molecular Weight** | 76.09 g/mol (propylene glycol component) |

## 10. STABILITY AND REACTIVITY

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| **Chemical Stability** | Stable under recommended storage conditions. |
| **Hazardous Reactions** | Nitrite can react with amines, including the triethanolamine in this product, to form N-nitrosamines; acid contact with the nitrite releases toxic nitrogen oxides. No hazardous reaction under normal use and storage. |
| **Conditions to Avoid** | Freezing in storage, prolonged storage above 38 °C (100 °F), contamination. |
| **Incompatible Materials** | Strong oxidizing agents; strong acids (acid contact with the nitrite releases toxic nitrogen oxides); amines and nitrosating agents (N-nitrosamine formation); galvanized (zinc) surfaces. |
| **Decomposition Products** | On drying and heating to decomposition: carbon oxides, nitrogen oxides, sodium oxides. |

## 11. TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure:** Skin and eye contact; accidental ingestion.
**Acute Toxicity:** Mixture not tested; see Section 2 for the derived classification. Component data:

| COMPONENT | ORAL LD50 | DERMAL LD50 |
|---|---|---|
| Propylene Glycol (57-55-6) | 20,000 mg/kg (rat) | 20,800 mg/kg (rabbit) |
| Sodium Nitrite (7632-00-0), 0.2–0.48% of blend | 85 mg/kg (rat) | Not determined |
| Triethanolamine (102-71-6) | 6,400 mg/kg (rat) | >2,000 mg/kg (rabbit) |

**Skin / Eye, sensitization, mutagenicity, reproductive toxicity, STOT, aspiration:** Not classified at the concentrations present (component data).

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| **IARC** | Sodium nitrite: Group 2A, probably carcinogenic to humans (IARC agent: ingested nitrate or nitrite under conditions that result in endogenous nitrosation, Vol. 94). Triethanolamine: Group 3 (not classifiable). No other component listed. |
| **NTP** | No component listed. |
| **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** | Propylene glycol: algae ErC50 19,000 mg/L (96 h, Selenastrum capricornutum); Daphnia magna EC50 43,500 mg/L (48 h). Sodium nitrite is toxic to fish at low mg/L concentrations; at 0.2–0.48% in the blend the mixture is not classified for aquatic toxicity. |
| **Persistence** | Propylene glycol: readily biodegradable. Inhibitor components: data from manufacturer not available. |
| **Bioaccumulation** | Propylene glycol: log Kow −0.92, not expected to bioaccumulate. |
| **Mobility in Soil** | Propylene glycol: very high mobility (estimated Koc ≈ 1). Prevent entry into drains and waterways. |

## 13. DISPOSAL CONSIDERATIONS

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

## 14. TRANSPORT INFORMATION

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| **US DOT** | Not regulated as dangerous goods. |
| **IMDG** | Not regulated as dangerous goods. |
| **IATA/ICAO** | Not regulated as dangerous goods. |
| **Marine Pollutant** | No |

## 15. REGULATORY INFORMATION

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| **TSCA Inventory** | Propylene glycol, sodium nitrite, triethanolamine, sodium benzoate and sodium molybdate: listed, Active. Remaining proprietary package ingredients: per inhibitor manufacturer. |
| **SARA 313 (TRI)** | Contains sodium nitrite (CAS 7632-00-0, EPCRA 313 listed) at 0.2–0.48%, below the 1% de minimis concentration. |
| **California Prop 65** | No intentionally added ingredient is listed. |
| **SARA 311/312** | None. The mixture is not classified for any physical or health hazard category. |
| **CERCLA** | Sodium nitrite (CAS 7632-00-0) is a CERCLA hazardous substance, reportable quantity (RQ) 100 lb (40 CFR 302.4). At its 0.48% maximum sodium nitrite content, about 20,800 lb (about 2,300 gal) of this product contains 100 lb of sodium nitrite. |

Data retrieved as of — TSCA Inventory: 2026-09-24; SARA 313 (TRI): 2026-09-24; California Prop 65: 2026-09-24

## 16. OTHER INFORMATION

**Revision Date:** 11/04/2026 (Version 2.2). Changes: propylene glycol stated in % v/v with its % w/w equivalent (Section 3) and the freeze point on that basis (Section 9); sodium nitrite scope note and OSHA row (Section 11); sodium nitrite oral LD50 and ATEmix (Sections 2 and 11). Version 2.1 (10/20/2026): relative density (Section 9) restated at 20/20 °C with the density at 20 °C. Version 2.0 (10/06/2026): inhibitor component ranges stated over the full dose range; classification rationale (Sections 2 and 11), nitrosamine reactivity (Section 10), CERCLA RQ (Section 15) and trade-secret statement (Section 3) added.

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