# TECHNICAL DATA SHEET

## Inhibited Propylene Glycol 25/75 with OAT Inhibitor — Data Center Coolant

Revised: 10/20/2026 (Version 1.3) | Product code: PG25-OAT-DC

## 1. PRODUCT DESCRIPTION

Inhibited Propylene Glycol 25/75 with OAT Inhibitor — Data Center Coolant is a ready-to-use heat-transfer and freeze-protection fluid: 25% by weight propylene glycol in deionized water with a **nitrite-containing hybrid organic-acid corrosion inhibitor package**. Blended by Alliance Chemical in Taylor, Texas, for closed-loop HVAC, chilled-water, hydronic and process-cooling systems.

- Freeze point approx. 15 °F (−10 °C).
- Inhibitor package: sodium nitrite, triethanolamine, sodium benzoate and sodium molybdate with organic-acid inhibitors. Contains nitrite and molybdate.
- Blended in deionized water. Not dyed. Not classified as hazardous under GHS; not regulated for transport by DOT.
- Not for food-contact, incidental-food-contact or potable-water service; not USP/NF grade.

## 2. COMPOSITION

| COMPONENT | CAS NO. | % BY WEIGHT |
|---|---|---|
| Propylene glycol (propane-1,2-diol) | 57-55-6 | 24.5 – 25.5 |
| Corrosion inhibitor package (nitrite-containing hybrid organic-acid) | Mixture | 1.8 – 2.2 |
| — of which sodium nitrite | 7632-00-0 | 0.18 – 0.44 |
| — of which triethanolamine | 102-71-6 | < 0.22 |
| — of which sodium benzoate | 532-32-1 | < 0.07 |
| — of which sodium molybdate dihydrate | 10102-40-6 | < 0.05 |
| Deionized water | 7732-18-5 | Balance |

Inhibitor package dosed at 2.0% (range 1.8–2.2%) by weight of the finished blend. Component ranges calculated over that dose range from the inhibitor manufacturer's composition ranges; the balance of the package is proprietary to the inhibitor manufacturer.

## 3. SPECIFICATIONS

| TEST | SPECIFICATION | METHOD / BASIS |
|---|---|---|
| Propylene glycol content | 24.5 – 25.5 % by weight | Formulation (batch weights); verified by refractive index against an in-house propylene glycol calibration / relative density (ASTM D1122) |
| Appearance | Clear, colorless to pale yellow liquid, free of sediment and suspended matter | Visual |
| Nitrite (as $NO_2$) | 600 ppm min. (calculated 1,300–2,700 ppm at the 2.0% dose) | Formulation minimum |
| Density (20 °C) | 1.0204 – 1.0238 g/cm³ | Formulation |
| Freeze point | 16 °F (−8.9 °C) max | ASTM D1177 |
| pH, as supplied | Reported on lot COA (typically 7.0 – 9.0) | ASTM D1287 |
| Reserve alkalinity | Reported on lot COA | ASTM D1121 |

Specifications are limits for the product as shipped. Rows marked formulation are calculated from the blend recipe; measured values are reported on the lot Certificate of Analysis.

## 4. CORROSION PROTECTION

The inhibitor package combines sodium nitrite (steel and cast iron), sodium molybdate, sodium benzoate and triethanolamine with organic-acid inhibitors. **Data provenance:** Alliance Chemical has not tested this finished 25% blend to ASTM D1384 or any other corrosion test standard; no corrosion-test certification is claimed.

## 5. TYPICAL PHYSICAL PROPERTIES

| | |
|---|---|
| **Appearance / odor** | Clear, colorless to pale yellow liquid; mild, characteristic odor |
| **Specific gravity (20/20 °C)** | 1.024 (water = 1), calculated from formulation |
| **Density (20 °C)** | 1.0221 g/cm³ (8.53 lb/gal), calculated from formulation |
| **Freeze point (ASTM D1177)** | approx. 15 °F (−10 °C) at 25 wt % propylene glycol |
| **Boiling point (760 mmHg)** | approx. 214 °F (101 °C) |
| **Flash point** | None — aqueous solution, will not sustain combustion |
| **Solubility in water** | Miscible in all proportions |
| **Dye** | None (colorant can be added on request) |

Glycol/water physical properties from published propylene glycol–water property tables, by weight, at 25 wt %.

## 6. APPLICATION, STORAGE & MATERIALS

**Use:** closed-loop heat transfer, chilled-water and hydronic freeze protection, and process cooling. Use as supplied; further dilution lowers both freeze protection and inhibitor concentration. Top up with the same fluid.

**Compatibility:** contains nitrite. Install as a fresh fill after draining and flushing; do not mix with phosphate-, silicate- or nitrite-free coolants.

**Materials:** formulated for steel, cast iron, copper, brass and solder; EPDM is the standard elastomer for glycol/water service. Avoid galvanized (zinc) surfaces.

**Storage:** tightly sealed original containers in a cool, dry area; avoid prolonged storage above 100 °F and protect from freezing and contamination. Aqueous blend — no flammable-liquid storage required.

## 7. PACKAGING & LOGISTICS

| | |
|---|---|
| **Standard package** | 275-gallon IBC tote (330-gal IBC, 55-gal drum and 5-gal pail available) |
| **US DOT** | Not regulated for transport |
| **NMFC** | Class 55 |
| **Documents** | SDS (rev. 10/20/2026), this TDS, and lot Certificate of Analysis |

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