

TECHNICAL DATA SHEET

100% Ethylene Glycol Inhibited

Laboratory · 100%

|            |                               |            |
|------------|-------------------------------|------------|
| CAS NUMBER | ALLIANCE CODE                 | GENERATED  |
| 107-21-1   | 100-ethylene-glycol-inhibited | 2026-09-11 |
| REVISION   | REVIEWED                      |            |
| 1.2        | 2026-07-17 · Andre Taki       |            |

IDENTITY & COMPOSITION

|                                  |                                |
|----------------------------------|--------------------------------|
| PRODUCT NAME                     | ALLIANCE CODE                  |
| 100% Ethylene Glycol Inhibited   | 100-ethylene-glycol-inhibited  |
| GRADE                            | CONCENTRATION                  |
| Laboratory                       | 100%                           |
| CAS NUMBER                       | FORMULA                        |
| 107-21-1 <a href="#">PubChem</a> | C2H6O2 <a href="#">PubChem</a> |
| MOLECULAR WEIGHT                 | PRODUCT TYPE                   |
| 62.07 <a href="#">PubChem</a>    | mixture                        |

SPECIFICATIONS

| TEST                    | SPECIFICATION    | TYPICAL          | METHOD | SOURCE                      |
|-------------------------|------------------|------------------|--------|-----------------------------|
| Ethylene glycol content | 97.8 % by volume | 97.8 % by volume | —      | <a href="#">Interpreted</a> |
| Reserve Alkalinity      | 3 ml min.        | 14.5             | —      | <a href="#">Interpreted</a> |
| Freeze Point            | -34°F max.       | -35°F            | —      | <a href="#">Interpreted</a> |

| TEST                                         | SPECIFICATION                                                     | TYPICAL     | METHOD        | SOURCE      |
|----------------------------------------------|-------------------------------------------------------------------|-------------|---------------|-------------|
| Nitrite                                      | 2400 ppm min.                                                     | 2700 ppm    | —             | Interpreted |
| Foaming tendency<br>(volume / break<br>time) | 150 mL max / 5 s max                                              | Passes test | ASTM<br>D1881 | Interpreted |
| Chloride (as Cl)                             | 25 ppm maximum                                                    | 1.0 ppm     | ASTM<br>D3634 | Interpreted |
| Corrosion in<br>glassware, six<br>metals     | Pass — weight loss within ASTM<br>D3306 limits for all six metals | Passes test | ASTM<br>D1384 | Interpreted |

Specification values are guaranteed limits. Typical values are representative of production lots and are not guaranteed. Lot-specific certificates of analysis ship with every order.

## PHYSICAL & CHEMICAL PROPERTIES

One or more physical-property values are temporarily suppressed pending verification against vendor COA data. For complete properties refer to the Safety Data Sheet (SDS) or contact [sales@alliancechemical.com](mailto:sales@alliancechemical.com).

| PROPERTY                 | VALUE                                                      | SOURCE              |
|--------------------------|------------------------------------------------------------|---------------------|
| Form                     | Liquid                                                     | Published reference |
| Odor                     | Odorless                                                   | Published reference |
| pH                       | 9.0 - 10.5                                                 | Interpreted         |
| Specific Gravity (20 °C) | 1.110-1.125                                                | Interpreted         |
| Density                  | 1.115 at 68 °F (USCG, 1999) - Denser than water; will sink | Published reference |
| Boiling Point            | 387.7 °F at 760 mmHg (NTP, 1992)                           | Published reference |
| Melting Point            | -34 °F (-36.7 °C) maximum                                  | Interpreted         |
| Flash Point              | 232 °F (NTP, 1992)                                         | Published reference |
| Vapor Pressure           | 0.06 mmHg at 68 °F ; 1 mmHg at 127.4 °F (NTP, 1992)        | Published reference |
| Solubility (water)       | greater than or equal to 100 mg/mL at 63.5 °F (NTP, 1992)  | Published reference |

## REGULATORY & TRANSPORT

### DOT / 49 CFR

UN NUMBER

Not regulated **Adjudicated**

PACKING GROUP

Not regulated **Adjudicated**

HAZARD CLASS

Not regulated **Adjudicated**

PROPER SHIPPING NAME

Not regulated **Adjudicated**

### GHS / OSHA HAZCOM 2012

SIGNAL WORD

Warning **Adjudicated**

H-CODES (HAZARD STATEMENTS)

H302, H373 **Adjudicated**

P-CODES (PRECAUTIONARY STATEMENTS)

P260, P264, P270, P314, P501 **Adjudicated**

### OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

— **no canonical**

ACGIH TLV

— **no canonical**

NIOSH REL

— **no canonical**

NIOSH IDLH

— **no canonical**

Transport descriptions reflect 49 CFR 172.101 lookup at time of publication. Sourced data: ECHA CLP Annex VI for harmonised classifications, NIOSH Pocket Guide for REL/IDLH, OSHA Z-Tables for PEL. Always verify against the latest regulatory text before shipment-critical decisions.

## CATALOG EQUIVALENTS CROSS-REFERENCE VS MAJOR CHEMICAL SUPPLIERS

### SIGMA-ALDRICH

| SKU                    | GRADE            | CONC. | MATCH                | NOTES                                                                      |
|------------------------|------------------|-------|----------------------|----------------------------------------------------------------------------|
| <a href="#">293237</a> | anhydrous, 99.8% | 99.8% | Unverified candidate | Sigma anhydrous; Alliance is inhibited (with corrosion inhibitor package). |

Cross-references are informational. Confirm against the manufacturer's current specification before substitution. Competitor trademarks are property of their respective owners.

## APPLICATIONS

Anti-freezing agent **laballey.com**

Used in the automobile industry **laballey.com**

Manufacturing of resins **laballey.com**

Synthesis of polyester fibers [labelley.com](https://labelley.com)

Dehydrating agent [labelley.com](https://labelley.com)

Polyester manufacturing and synthetic waxes production [labelley.com](https://labelley.com)

Applications are drawn from published manufacturer and supplier documentation; each is sourced. Suitability for a specific use is the buyer's to confirm.

## STORAGE & HANDLING

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### RECOMMENDED STORAGE

Cool, dry, well-ventilated area in tightly sealed original containers. Neat glycols are combustible liquids with high flash points (roughly 99–111 °C) and do not require a solvent store; aqueous blends will not sustain combustion. Protect inhibited coolants from contamination and from freezing below their stated protection point.

Class-level guidance — not product-specific; the SDS controls.

### INCOMPATIBILITIES

Strong oxidizers, strong acids and strong bases. Galvanized (zinc) surfaces are attacked by many inhibited coolant packages. Verify elastomer and gasket compatibility for the service temperature; EPDM is standard for glycol/water service.

Class-level guidance — not product-specific; the SDS controls.

For full hazard, PPE, and emergency response guidance, refer to the Safety Data Sheet (SDS) for this product. The SDS controls in all cases where guidance differs.

### HANDLING PRECAUTIONS

Chemical-resistant gloves and splash goggles. Ethylene glycol grades are toxic by ingestion and must be kept away from food, drink and animals; propylene glycol grades are not. Avoid contact with hot surfaces and hot process equipment. Inhibitor packages deplete in service — monitor rather than top up blindly.

Class-level guidance — not product-specific; the SDS controls.

### SHELF LIFE

Consult Technical Services for product-specific shelf life

## PACKAGING & LOGISTICS

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### SHIPPING DESCRIPTION (US DOT)

Not regulated for transport.

Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS

55

## REVISION HISTORY

Last reviewed 2026-07-17 by Andre Taki, DOT Hazmat Specialist.

| VERSION | DATE       | CHANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | TRIGGER          |
|---------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 1.2     | 2026-07-22 | Canonical data updated: 4 fields changed via the provenance/adjudication pipeline. <ul style="list-style-type: none"><li>unNumber · canonical change (coa.data_provenance / adjudication)</li><li>hazardClass · canonical change (coa.data_provenance / adjudication)</li><li>packingGroup · canonical change (coa.data_provenance / adjudication)</li><li>dotProperShippingName · canonical change (coa.data_provenance / adjudication)</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                          | canonical_change |
| 1.1     | 2026-07-17 | Canonical data re-verified: 7 fields updated against independent vendor SDSs, CLP Annex VI, 49 CFR, and OSHA HazCom 2024 (GHS classification, hazard/precautionary codes, signal word, physical properties as applicable). <ul style="list-style-type: none"><li>countryOfOrigin · canonical adjudication / reground (coa.data_provenance)</li><li>dotSubsidiaryHazardClass · canonical adjudication / reground (coa.data_provenance)</li><li>ghsClassification · canonical adjudication / reground (coa.data_provenance)</li><li>hazard_h_codes · canonical adjudication / reground (coa.data_provenance)</li><li>hazard_p_codes · canonical adjudication / reground (coa.data_provenance)</li><li>hsCode · canonical adjudication / reground (coa.data_provenance)</li><li>signalWord · canonical adjudication / reground (coa.data_provenance)</li></ul> | canonical_change |
| 1.0     | 2026-05-20 | Initial URL-first TDS published from canonical chemistry registry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | initial          |

This Technical Data Sheet is provided for technical reference. The Safety Data Sheet (SDS) controls in all cases where guidance differs. Values reflect Alliance Chemical canonical data at time of generation; subsequent revisions are recorded in the Revision History above.