

TECHNICAL DATA SHEET

Inhibited Propylene Glycol 50/50 with OAT Inhibitor — Data Center Coolant

50%

CAS NUMBER	ALLIANCE CODE	GENERATED
57-55-6	SHOPIFY-7859432226858	2026-09-09
REVISION	REVIEWED	
1.4	2026-07-16 · Andre Taki	

IDENTITY & COMPOSITION

PRODUCT NAME	ALLIANCE CODE
Inhibited Propylene Glycol 50/50 with OAT Inhibitor — Data Center Coolant	SHOPIFY-7859432226858
GRADE	CONCENTRATION
—	50%
CAS NUMBER	FORMULA
57-55-6 PubChem	C3H8O2 PubChem
MOLECULAR WEIGHT	PRODUCT TYPE
76.09 PubChem	mixture

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay	49.0 – 51.0 % w/w	50.0 %	—	Interpreted
Propylene glycol concentration	49.0 – 51.0 % w/w	50.0 %	—	Interpreted

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Inhibitor loading (OAT package)	1.0–2.5 % OAT inhibitor package	1.75 %	Batch charge record / ion chromatography of carboxylates	Interpreted
Reserve alkalinity	≥ 3.0 mL at 50 wt % propylene glycol	3.6	ASTM D1121	Interpreted
Silicate, phosphate, nitrite, nitrate, borate and amine content	None detected (< 10 ppm each)	0.3 ppm	ICP-OES / ion chromatography	Interpreted
Foaming tendency	Volume ≤ 150 mL; break time ≤ 5 s	Passes test	ASTM D1881	Interpreted
Dipropylene glycol (DPG)	0.25 wt% max	0.125 wt%	GC area % (ASTM E202)	Interpreted
Freeze point	–28.3 °F (–33.5 °C) max	–28.3 °F (–33.5 °C)	ASTM D1177	Interpreted
Burst protection	≤ –45 °C (–49 °F)	–47 °C (–53 °F)	Burst test	Interpreted
Acidity as Acetic Acid	0.0025 % max	0.00075 %	—	Interpreted
Chlorides as Cl	0.7 ppm max	0.2 ppm	—	Interpreted
Heavy Metals as Pb	2.5 ppm max	0.1 ppm	—	Interpreted
Iron	0.51 ppm max	0.05 ppm	—	Interpreted
ash	0.0025% max	0.0004 %	—	Interpreted

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Suspended Matter		Pass	Passes test	—
Composition	50 % propylene glycol in deionized water with the OAT inhibitor package, by weight	Conforms	By formulation; confirmed by specific gravity	—

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.

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE —	50%	—	current
—	40%	—	SHOPIFY-7859432194090
—	35%	—	SHOPIFY-7990713942058
—	30%	—	SHOPIFY-7859429277738
—	25%	—	SHOPIFY-7990713909290

Typical assay shown is the rolling-window mean from the sibling product's most recent lots. Grade selection drives downstream end-use — verify the sibling grade matches your specification before substitution.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	Pass	Interpreted
Color	10 APHA (maximum)	Interpreted
Odor	Mild, characteristic	Published reference
pH	9–10.5	Published reference
Specific Gravity (20 °C)	1.046 (20 °C)	Published reference
Density	1.046 g/mL at 20 °C	Published reference
Boiling Point	~106 °C	Published reference
Melting Point	–33 °C (freeze / crystallization onset)	Published reference
Flash Point	Not flammable (aqueous solution)	Published reference
Solubility (water)	Miscible with water	Published reference

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

Not regulated **Adjudicated**

HAZARD CLASS

Not regulated **Adjudicated**

PACKING GROUP

Not regulated **Adjudicated**

PROPER SHIPPING NAME

Not regulated **Adjudicated**

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Not regulated **Adjudicated**

H-CODES (HAZARD STATEMENTS)

— **no canonical**

P-CODES (PRECAUTIONARY STATEMENTS)

— **no canonical**

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.

APPLICATION GUIDANCE

Inhibited Propylene Glycol 50/50 with OAT Inhibitor — Data Center Coolant is a glycol-based heat-transfer and freeze-protection fluid. Concentration sets the freeze and burst protection; the inhibitor package sets how long the system stays protected from corrosion.

- Closed-loop heat transfer and process cooling
- Data-centre and chilled-water freeze protection
- HVAC hydronic loops and glycol makeup
- Freeze and burst protection for idle or seasonal systems
- Humectant and carrier applications (USP/food-grade propylene glycol only)

Verify concentration against the required freeze and burst protection, and confirm elastomer and metallurgy compatibility for the service temperature. Ethylene glycol is toxic by ingestion and must not be used where incidental food or potable contact is possible — specify a propylene glycol grade for those services.

STORAGE & HANDLING

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

SHIPPING DESCRIPTION (US DOT)

Not regulated for transport.

Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS
55

REVISION HISTORY

Last reviewed 2026-07-16 by Andre Taki, DOT Hazmat Specialist.

VERSION	DATE	CHANGE	TRIGGER
1.4	2026-09-09	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. physicalProperties · canonical change (coa.data_provenance / adjudication)	canonical_change
1.3	2026-07-24	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. physicalProperties · canonical change (coa.data_provenance / adjudication)	canonical_change
1.2	2026-07-22	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. ghsClassification · canonical change (coa.data_provenance / adjudication)	canonical_change
1.1	2026-07-16	Canonical data re-verified: 10 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). - countryOfOrigin · canonical adjudication / reground (coa.data_provenance) - dotProperShippingName · canonical adjudication / reground (coa.data_provenance) - dotSubsidiaryHazardClass · canonical adjudication / reground (coa.data_provenance) - ghsClassification · canonical adjudication / reground (coa.data_provenance) - hazardClass · canonical adjudication / reground (coa.data_provenance) - hsCode · canonical adjudication / reground (coa.data_provenance) - packingGroup · canonical adjudication / reground (coa.data_provenance) - physicalProperties · canonical adjudication / reground (coa.data_provenance) - signalWord · canonical adjudication / reground (coa.data_provenance) - unNumber · canonical adjudication / reground (coa.data_provenance)	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.