

TECHNICAL DATA SHEET

Glycerin 50% Food Grade

Food · 50%

CAS NUMBER	ALLIANCE CODE	GENERATED
56-81-5	glycerin-50-food-grade	2026-08-31
REVISION	REVIEWED	
1.1	2026-06-17 · Andre Taki	

IDENTITY & COMPOSITION

PRODUCT NAME	ALLIANCE CODE
Glycerin 50% Food Grade	glycerin-50-food-grade
GRADE	CONCENTRATION
Food	50%
CAS NUMBER	FORMULA
56-81-5 PubChem	C3H8O3 PubChem
MOLECULAR WEIGHT	PRODUCT TYPE
92.09 PubChem	solution

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay (glycerol)	49.0 – 51.0 %	50.0 %	—	Commercial practice
Chloride (Cl)	5 ppm max	0.50 ppm	—	Derived by dilution

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Chlorinated compounds	15 ppm max	1.0 ppm	—	Derived by dilution
Diethylene glycol	0.05 % max	0.002 %	—	Derived by dilution
Fatty acids and esters	not more than 0.5 mL of 0.5 N sodium hydroxide consumed	0.05	USP saponification / residual titration on a 50 g sample	Derived by dilution
Heavy metals	2.5 ppm max	0.50 ppm	—	Derived by dilution
Lead	NMT 0.5 mg/kg	0.010 mg/kg	—	Derived by dilution
Residue on ignition	0.005 % max	0.001 %	USP <281>	Derived by dilution
Sulfate (SO ₄)	10 ppm max	1.0 ppm	—	Derived by dilution

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 Food	50%	—	current
Food	75%	—	glycerin-75-food-grade
Food	25%	—	glycerin-25-food-grade

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
Technical Grade	—	—	glycerin-technical-grade
USP Grade	—	—	glycerin-usp-grade

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
Color	10 Max	Interpreted
pH	4.0 – 8.0	Interpreted

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

Not regulated [Adjudicated](#)

H-CODES (HAZARD STATEMENTS)

Not applicable [ECHA CLP Annex VI](#)

P-CODES (PRECAUTIONARY STATEMENTS)

Not applicable [ECHA CLP Annex VI](#)

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

15 mg/m³ TWA total / 5 mg/m³ TWA respirable

[OSHA 29 CFR 1910.1000](#)

ACGIH TLV

— [no canonical](#)

NIOSH REL

5 mg/m³ TWA (mist) [NIOSH Pocket Guide](#)

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

Glycerin 50% Food Grade (Food) application guidance is available on request. Contact Alliance Chemical Technical Services for grade-specific use recommendations.

STORAGE & HANDLING

RECOMMENDED STORAGE

Cool, dry, well-ventilated area in original sealed containers. Refer to product SDS for material-specific guidance.

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

INCOMPATIBILITIES

Consult the SDS for material-specific incompatibilities.

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

Use standard chemical PPE — splash goggles, gloves, lab coat. Refer to SDS for hazard-specific PPE requirements.

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 2026-06-17 by Andre Taki, DOT Hazmat Specialist.

VERSION	DATE	CHANGE	TRIGGER
1.1	2026-06-17	Canonical data re-verified: 3 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) - dotSubsidiaryHazardClass · canonical adjudication / reground (coa.data_provenance) - hsCode · canonical adjudication / reground (coa.data_provenance)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
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.