

TECHNICAL DATA SHEET

50% Vinegar - Concentrated Industrial Strength

Industrial · 50%

CAS NUMBER

64-19-7

ALLIANCE CODE

50-vinegar-concentrated-industrial-strength

GENERATED

2026-07-17

1. IDENTITY & COMPOSITION

PRODUCT NAME

50% Vinegar - Concentrated Industrial Strength

ALLIANCE CODE

50-vinegar-concentrated-industrial-strength

GRADE

Industrial

CONCENTRATION

50%

CAS NUMBER

64-19-7 [PubChem](#)

FORMULA

C2H4O2 [PubChem](#)

MOLECULAR WEIGHT

60.05 [PubChem](#)

PRODUCT TYPE

solution

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE Industrial	50%	—	current
Food Grade	50%	—	50-acetic-acid-food-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

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.

APPEARANCE

Clear colorless liquid with a vinegar odor (50% aqueous acetic acid solution). [Product record](#)

ODOR

Pungent [Product record](#)

DENSITY

1.058 g/mL at 20 °C (50% w/w aqueous acetic acid; CRC) [Product record](#)

MELTING POINT

not characterized for the solution
[Product record](#)

SOLUBILITY (WATER)

greater than or equal to 100 mg/mL at 73 °F (NTP, 1992) [Product record](#)

FORM

Liquid [Product record](#)

PH

Aqueous solution 1.0 molar = 2.4; 0.1 molar = 2.9; 0.01 molar = 3.4 [Product record](#)

BOILING POINT

not characterized for the solution
[Product record](#)

VAPOR PRESSURE

11.4 mmHg at 68 °F ; 20 mmHg at 86 °F (NTP, 1992) [Product record](#)

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

UN2790 **Adjudicated**

PACKING GROUP

II **Adjudicated**

HAZARD CLASS

8 **Adjudicated**

PROPER SHIPPING NAME

Acetic acid solution, with not less than 50 percent but not more than 80 percent acid, by mass **Adjudicated**

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger **Adjudicated**

H-CODES (HAZARD STATEMENTS)

H314 **Adjudicated**

P-CODES (PRECAUTIONARY STATEMENTS)

P210, P233, P240, P241, P242, P243, P260, P264,
P280, P301+P330+P331, P303+P361+P353,
P304+P340, P305+P351+P338, P310, P321, P363,...

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

10 ppm TWA **OSHA 29 CFR 1910.1000**

ACGIH TLV

— **unknown**

NIOSH REL

10 ppm TWA / 15 ppm STEL **NIOSH Pocket Guide**

NIOSH IDLH

50 ppm **NIOSH Pocket Guide**

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.

Supplier Qualification Packet

One zipped download containing the TDS, SDS, latest lot COA (when available), and a fresh Letter of Continuing Guaranty for 50% Vinegar – Concentrated Industrial Strength. Every file included is SHA-256 hashed and listed in a manifest your QA team can audit.

CATALOG EQUIVALENTS CROSS-REFERENCE VS MAJOR CHEMICAL SUPPLIERS

HONEYWELL

SKU	GRADE	CONC.	MATCH	NOTES
33209	ACS	99.8%	Exact	Fluka ACS grade

SIGMA-ALDRICH

SKU	GRADE	CONC.	MATCH	NOTES
320099	ACS Reagent	99.7%	Exact	ACS Reagent ≥99.7%

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

APPLICATION GUIDANCE

50% Vinegar – Concentrated Industrial Strength (Industrial) 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.

INCOMPATIBILITIES

Consult the SDS for material-specific incompatibilities.

HANDLING PRECAUTIONS

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

SHELF LIFE

24 months from date of manufacture in sealed, original packaging

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.

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

UN2790, Acetic acid solution, with not less than 50 percent but not more than 80 percent acid, by mass, 8, PG II

Sourced from 49 CFR 172.101. Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS 60	PLACARD Corrosive	PACKING GROUP PG II
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REVISION HISTORY

Last reviewed 2026-05-20 by Hossein Taki, Vice President (Vice President, Alliance Chemical · CAGE Code 1LT50 · DOT Hazmat Registrant #2188383).

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.

ALLIANCE CHEMICAL

Order 50% Vinegar – Concentrated Industrial Strength

Bulk & packaged sizes · COA/SDS ships with every order