

TECHNICAL DATA SHEET

Ethyl Acetate ACS

ACS

CAS NUMBER
141-78-6

ALLIANCE CODE
ethyl-acetate-acs

GENERATED
2026-08-09

1. IDENTITY & COMPOSITION

PRODUCT NAME
Ethyl Acetate ACS

ALLIANCE CODE
ethyl-acetate-acs

GRADE
ACS

CONCENTRATION
—

CAS NUMBER
141-78-6 [PubChem](#)

FORMULA
C4H8O2 [PubChem](#)

MOLECULAR WEIGHT
88.11 [PubChem](#)

PRODUCT TYPE
pure_substance

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE ACS	—	—	current
Reagent	—	—	ethyl-acetate

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.

FORM

Liquid **Product record**

ODOR

CHARACTERISTIC ETHER-LIKE ODOR
REMINISCENT OF PINEAPPLE. **Product record**

DENSITY

0.902 at 68 °F (USCG, 1999) – Less dense than water; will float **Product record**

BOILING POINT

171 °F at 760 mmHg (NTP, 1992) **Product record**

MELTING POINT

–118.5 °F (NTP, 1992) **Product record**

FLASH POINT

24 °F (NTP, 1992) **Product record**

VAPOR PRESSURE

73 mmHg at 68 °F ; 100 mmHg at 81 °F (NTP, 1992) **Product record**

SOLUBILITY (WATER)

50 to 100 mg/mL at 70 °F (NTP, 1992) **Product record**

Polar solvent — purity vs. intended end-use (electronics, pharma, general industrial) is the dominant grade consideration. See application guidance for grade selection.

MATERIALS OF CONSTRUCTION

MATERIAL	RATING	MAX T (°C)	NOTES	SOURCE
Buna-N (NBR) Elastomer	Fair	60	Acceptable for alcohols; poor for ketones.	Parker O-ring Chemical Compatibility
EPDM Elastomer	Fair	—	Good for alcohols, poor for esters	Cole-Parmer Chemical Compatibility
Viton (FKM) Elastomer	Fair	80	Swells in acetone and esters; avoid for those.	Parker O-ring Chemical Compatibility
FFKM (Kalrez) Fluoropolymer	Excellent	200	Premium ester / ketone sealing	Cole-Parmer Chemical Compatibility
PTFE Fluoropolymer	Excellent	200	Preferred for all polar solvents	Cole-Parmer Chemical Compatibility

MATERIAL	RATING	MAX T (°C)	NOTES	SOURCE
Borosilicate Glass Glass Ceramic	Excellent	100	Universally inert.	Cole-Parmer Chemical Compatibility
Glass (borosilicate) Glass Ceramic	Excellent	100	Inert	Cole-Parmer Chemical Compatibility
316 stainless steel Metal	Excellent	60	Standard alcohol / ester service	Cole-Parmer Chemical Compatibility
316L Stainless Steel Metal	Excellent	80	Inert; preferred for high-purity solvent service.	Cole-Parmer Chemical Compatibility
Aluminium Metal	Good	40	Acceptable; avoid prolonged wet contact	Cole-Parmer Chemical Compatibility
Carbon steel Metal	Good	40	Acceptable for short-term storage	Cole-Parmer Chemical Compatibility
Carbon Steel Metal	Fair	50	Trace moisture causes rust; flash-rust prevention required.	Cole-Parmer Chemical Compatibility
HDPE Thermoplastic	Fair	40	Swells with many polar solvents; verify per solvent.	Cole-Parmer Chemical Compatibility
PP Thermoplastic	Good	50	Acceptable but watch swelling with esters	Cole-Parmer Chemical Compatibility
PVC Thermoplastic	Fair	25	Esters soften PVC; avoid for esters	Cole-Parmer Chemical Compatibility

Ratings reflect the service envelope (concentration × temperature) shown. Always confirm against your specific duty cycle and contact-time before equipment selection. The most cautious rating across overlapping references is shown.

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

UN1173 49 CFR 172.101

PACKING GROUP

II Adjudicated

HAZARD CLASS

3 Adjudicated

PROPER SHIPPING NAME

Ethyl acetate Adjudicated

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger Adjudicated

H-CODES (HAZARD STATEMENTS)

H225, H319, H336, EUH066 ECHA CLP Annex VI

P-CODES (PRECAUTIONARY STATEMENTS)

P210, P233, P240, P241, P242, P243, P261, P264,
P271, P280, P303+P361+P353, P304+P340,
P305+P351+P338, P312, P337+P313, P370+P378,...

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

400 ppm TWA OSHA 29 CFR 1910.1000

ACGIH TLV

— unknown

NIOSH REL

400 ppm TWA NIOSH Pocket Guide

NIOSH IDLH

2000 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 Ethyl Acetate ACS. 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

SIGMA-ALDRICH

SKU	GRADE	CONC.	MATCH	NOTES
270989	ACS Reagent	99.5%	Exact	ACS Reagent ≥99.5%

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

APPLICATION GUIDANCE

Ethyl Acetate ACS (ACS) is a polar solvent. Grade selection (technical, ACS, electronics, USP) determines acceptable residue and impurity levels for the intended end-use.

- Cleaning and degreasing (technical-grade)
- Coatings, inks, and adhesives formulation
- Reaction solvent for chemical synthesis
- Pharmaceutical manufacturing (USP-grade)
- Electronics-grade cleaning and rinse applications

Flammable. Bond and ground equipment during transfer. Verify grade matches end-use specification before substitution.

STORAGE & HANDLING

RECOMMENDED STORAGE

Cool, well-ventilated flammable-liquid storage area. Tightly sealed original containers. Segregate from oxidizers and acids. Bond and ground bulk...

INCOMPATIBILITIES

Strong oxidizers, strong acids, isocyanates, anhydrides. Hygroscopic — protect from atmospheric moisture for water-sensitive end...

HANDLING PRECAUTIONS

Use chemical-resistant gloves and splash goggles. Bond and ground during transfer to prevent static accumulation. Eliminate ignition...

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)

UN1173, Ethyl acetate, 3, PG II

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

NMFC CLASS 70	PLACARD Flammable Liquid	PACKING GROUP PG II
------------------	-----------------------------	------------------------

REVISION HISTORY

Last reviewed 2026-06-18 by Andre Taki, DOT Hazmat Specialist.

VERSION	DATE	CHANGE	TRIGGER
1.3	2026-08-05	Canonical data updated: 3 fields changed via the provenance/adjudication pipeline. - hazardClass · canonical change (coa.data_provenance / adjudication) - packingGroup · canonical change (coa.data_provenance / adjudication) - unNumber · canonical change (coa.data_provenance / adjudication)	canonical_change
1.2	2026-07-22	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication)	canonical_change
1.1	2026-06-18	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) - ghsClassification · canonical adjudication / reground (coa.data_provenance) - hsCode · 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.

ALLIANCE CHEMICAL

Order Ethyl Acetate ACS

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