

TECHNICAL DATA SHEET

Methyl Ethyl Ketone (MEK) ACS Grade

ACS Grade

CAS NUMBER

78-93-3

ALLIANCE CODE

methyl-ethyl-ketone-mek-
acs-grade

GENERATED

2026-08-31

REVISION

1.2

REVIEWED

2026-06-18 · Andre Taki

IDENTITY & COMPOSITION

PRODUCT NAME

Methyl Ethyl Ketone (MEK) ACS Grade

ALLIANCE CODE

methyl-ethyl-ketone-mek-acs-grade

GRADE

ACS Grade

CONCENTRATION

—

CAS NUMBER

78-93-3 [PubChem](#)

FORMULA

C₄H₈O [PubChem](#)

MOLECULAR WEIGHT

72.11 [PubChem](#)

PRODUCT TYPE

pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay (C ₄ H ₈ O)	99.0 % min	99.9 %	Gas chromatography (GC)	ACS Reagent Chemicals
Titration acid	0.0005 meq/g max	0.0001 meq/g	—	ACS Reagent Chemicals
Residue after evaporation	0.0025 % max	0.0004 %	—	ACS Reagent Chemicals

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Water (H ₂ O)	0.20 % max	0.03 %	—	ACS Reagent Chemicals
Substances darkened by sulfuric acid	Passes test	Passes test	ACS monograph colorimetric test	Interpreted
Identification (Infrared spectrum)	Conforms to structure	Passes test	FTIR vs. reference spectrum	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.

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE ACS Grade	—	—	current
Technical	—	—	methyl-ethyl-ketone-mek

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.

PROPERTY	VALUE	SOURCE
Form	Liquid	Published reference
Color	15 max	ACS Reagent Chemicals
Odor	Acetone-like odor	Published reference
Specific Gravity (20 °C)	0.804 – 0.807	Interpreted
Density	0.806 at 68 °F (USCG, 1999) – Less dense than water; will float	Published reference
Boiling Point	175.3 °F at 760 mmHg (NTP, 1992)	Published reference
Melting Point	–123.3 °F (NTP, 1992)	Published reference
Flash Point	26 °F (NTP, 1992)	Published reference
Vapor Pressure	77.5 mmHg at 68 °F ; 100 mmHg at 77.0 °F (NTP, 1992)	Published reference
Solubility (water)	greater than or equal to 100 mg/mL at 66 °F (NTP, 1992)	Published reference

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER	HAZARD CLASS
UN1193 49 CFR 172.101	3 Adjudicated
PACKING GROUP	PROPER SHIPPING NAME
II Adjudicated	Ethyl methyl ketone or methyl ethyl ketone
	Adjudicated

GHS / OSHA HAZCOM 2012

SIGNAL WORD	H-CODES (HAZARD STATEMENTS)
Danger Adjudicated	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, P403+P233,
P403+P235, P405, P501

ECHA CLP Annex VI

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)	ACGIH TLV
200 ppm TWA OSHA 29 CFR 1910.1000	— no canonical
NIOSH REL	NIOSH IDLH
200 ppm TWA / 300 ppm STEL	3000 ppm NIOSH Pocket Guide
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.

CATALOG EQUIVALENTS CROSS-REFERENCE VS MAJOR CHEMICAL SUPPLIERS

SIGMA-ALDRICH

SKU	GRADE	CONC.	MATCH	NOTES
360473	ACS Reagent	99%	Exact	ACS Reagent ≥99%

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

APPLICATIONS

ACS reagent grade material for high-purity laboratory applications labdepotinc.com

Used widely as a solvent labdepotinc.com

Solvent for natural and synthetic resins, giving solutions with low viscosity and high solids content
wurthmachinery.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

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.

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

12 months wurthmachinery.com

Provided proper storage and handling precautions are taken

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)

UN1193, Ethyl methyl ketone or methyl ethyl ketone, 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
1.2	2026-07-22	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. - dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication) - dotProperShippingName · 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.