

TECHNICAL DATA SHEET

Methyl Isobutyl Ketone (MIBK) ACS Grade

ACS Grade

CAS NUMBER

108-10-1

ALLIANCE CODE

methyl-isobutyl-ketone-
mibk-acs-grade

GENERATED

2026-08-31

REVISION

1.3

REVIEWED

2026-06-18 · Andre Taki

IDENTITY & COMPOSITION

PRODUCT NAME

Methyl Isobutyl Ketone (MIBK) ACS Grade

ALLIANCE CODE

methyl-isobutyl-ketone-mibk-acs-grade

GRADE

ACS Grade

CONCENTRATION

—

CAS NUMBER

108-10-1 [PubChem](#)

FORMULA

C6H12O [PubChem](#)

MOLECULAR WEIGHT

100.16 [PubChem](#)

PRODUCT TYPE

pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay (C6H12O)	Min. 98.5%	99.7 %	—	ACS Reagent Chemicals
Titration Acid	0.002 meq/g max	0.0003 meq/g	—	Supplier specification
Residue After Evaporation	0.005% max	0.0005 %	—	Supplier specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Water	0.1 % max	0.02 %	—	Supplier specification
Identification (Infrared Spectrum)	Conforms to reference spectrum	Passes test	FTIR / ASTM E1252	Interpreted
Substances Darkened by Sulfuric Acid	Passes test	Passes test	ACS visual comparison test	Interpreted
residue	0.005 % max	0.0005 %	—	Supplier specification

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 Grade	—	—	methyl-isobutyl-ketone-mibk-technical-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.

PROPERTY	VALUE	SOURCE
Form	Liquid	Published reference
Color	15 max	Supplier specification
Odor	Pleasant odor	Published reference
Specific Gravity (20 °C)	0.798 – 0.802	Interpreted
Density	0.802 at 68 °F (USCG, 1999) – Less dense than water; will float	Published reference
Boiling Point	115.0 – 117.0 °C	Interpreted
Melting Point	–120.5 °F (NTP, 1992)	Published reference
Flash Point	73 °F (NTP, 1992)	Published reference
Vapor Pressure	5 mmHg at 67.5 °F ; 10 mmHg at 86.0 °F (NTP, 1992)	Published reference
Solubility (water)	1 to 5 mg/mL at 70 °F (NTP, 1992)	Published reference
Refractive Index (nD 20)	1.3940 – 1.3970	Interpreted

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

UN1245 [49 CFR 172.101](#)

PACKING GROUP

II [Adjudicated](#)

HAZARD CLASS

3 [Adjudicated](#)

PROPER SHIPPING NAME

Methyl isobutyl ketone [Adjudicated](#)

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger [Adjudicated](#)

H-CODES (HAZARD STATEMENTS)

H225, H319, H332, H335, H351, EUH066

[ECHA CLP Annex VI](#)

P-CODES (PRECAUTIONARY STATEMENTS)

P201, P202, P210, P233, P240, P241, P242,
P243, P260, P261, P264, P271, P280, P281,
P303+P361+P353, P304+P340,
P305+P351+P338, P308+P313, P312,
P337+P313, P370+P378, P403+P233,
P403+P235, P405, P501

[ECHA CLP Annex VI](#)

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

100 ppm TWA [OSHA 29 CFR 1910.1000](#)

NIOSH REL

50 ppm TWA / 75 ppm STEL

[NIOSH Pocket Guide](#)

ACGIH TLV

— [no canonical](#)

NIOSH IDLH

500 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.

APPLICATIONS

Solvent in manufacturing processes for lacquers and nitrocellulose, and for a number of polymers and resins

[labdepotinc.com](#)

High-purity laboratory use, where ACS reagent specifications are the de facto quality standard

[labdepotinc.com](#)

Active solvent for synthetic resins including cellulosics, vinyl copolymers, acrylics, alkyds, polyesters and epoxies

productcatalog.eastman.com

Solvent for inks, coatings and adhesives; extraction agent in dewaxing and deoiling of petroleum products

productcatalog.eastman.com

Extraction agent in the dewaxing and deoiling of petroleum products. productcatalog.eastman.com

Used in manufacturing germicides, fungicides, pharmaceuticals, and electroplating solutions.

productcatalog.eastman.com

Denaturant in ethanol formulations. productcatalog.eastman.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

Consult Technical Services for product-specific shelf life

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)

UN1245, Methyl isobutyl 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
1.3	2026-08-05	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. - dotProperShippingName · 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: 5 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). - color · canonical adjudication / reground (coa.data_provenance) - countryOfOrigin · canonical adjudication / reground (coa.data_provenance) - ghsClassification · canonical adjudication / reground (coa.data_provenance) - hsCode · canonical adjudication / reground (coa.data_provenance) - specificGravity · 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.