

TECHNICAL DATA SHEET

Methanol Technical Grade

Technical Grade

CAS NUMBER	ALLIANCE CODE	GENERATED
67-56-1	methanol-technical-grade	2026-08-31
REVISION	REVIEWED	
1.3	2026-06-18 · Andre Taki	

IDENTITY & COMPOSITION

PRODUCT NAME	ALLIANCE CODE
Methanol Technical Grade	methanol-technical-grade
GRADE	CONCENTRATION
Technical Grade	—
CAS NUMBER	FORMULA
67-56-1 PubChem	CH4O PubChem
MOLECULAR WEIGHT	PRODUCT TYPE
32.042 PubChem	pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Purity (CH3OH), wt % on dry basis	99.85 Min	99.95 % W/W	IMPCA 001-14	Supplier specification
Acetone	30 Max mg/kg	3 mg/kg	IMPCA 001-14	Supplier specification
Acidity as acetic acid	30 Max mg/kg	5 mg/kg	ASTM D 1613-12	Supplier specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Alkalinity	Max 0.0003 wt%	0.00005 wt%	—	Supplier specification
Carbonisable substances (sulfuric acid wash test), Pt-Co scale	30 Max	5	ASTM E 346-08	Supplier specification
Chloride as Cl	0.5 Max mg/kg	0.1 mg/kg	IMPCA 002-98	Supplier specification
Ethanol	50 Max mg/kg	20 mg/kg	IMPCA 001-14	Supplier specification
Hydrocarbons	Pass Test	Passes test	ASTM D 1722-09	Supplier specification
Iron in solution	0.1 Max mg/kg	0.02 mg/kg	ASTM E 394-09	Supplier specification
IBP @ 760 mm Hg	Max 64.7°C	64.5°C	—	Supplier specification
Potassium permanganate time test at 15°C	50 MINUTES min	75	ASTM D 1363-11	Supplier specification
Non-volatile matter	8 Max mg/1000 mL	2	ASTM D 1353-13	Supplier specification
Carbonizable substances	Max 50, Pt-Co Scale	15	—	Supplier specification
Sulphur	0.5 Max mg/kg	0.1 mg/kg	ASTM D 3961-98 or ASTM D 5453-12	Supplier specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Total Sulfur	Max 0.5 ppm	0.1 ppm	—	Supplier specification
Water	0.100 Max % w/w	0.05 % W/W	ASTM E 1064-12	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 Technical Grade	—		— current
ACS Reagent	—		— methanol-acs-reagent-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
Appearance	Clear & Free of suspended matter	Supplier specification
Form	Liquid	Published reference
Color	5 Max	Supplier specification
Odor	Characteristic, non-residual	Interpreted
Specific Gravity (20 °C)	0.7910 – 0.7930	Supplier specification
Density	0.792 at 68 °F (USCG, 1999) – Less dense than water; will float	Published reference
Boiling Point	1.0°C to include 64.6°±0.1° Max	Supplier specification
Melting Point	-144 °F (NTP, 1992)	Published reference
Flash Point	52 °F (NTP, 1992)	Published reference
Vapor Pressure	100 mmHg at 70.2 °F ; 237.87 mmHg at 100 °F (NTP, 1992)	Published reference
Solubility (water)	greater than or equal to 100 mg/mL at 70 °F (NTP, 1992)	Published reference

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	CONDITIONS	SOURCE
HDPE	Compatible	Methanol ACS/HPLC grade, assay min. 99.8% (typical 99.99%), supplied in 20 liter HDPE packaging; source states no upper temperature or exposure-time bound	nwsci.com

Compatibility is drawn from published manufacturer and supplier documentation for this product; each rating is sourced. Confirm against your specific duty cycle before equipment selection.

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

UN1230 **49 CFR 172.101**

PACKING GROUP

II **Adjudicated**

HAZARD CLASS

3 **Adjudicated**

PROPER SHIPPING NAME

Methanol **Adjudicated**

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger **Adjudicated**

H-CODES (HAZARD STATEMENTS)

H225, H301, H311, H331, H370

ECHA CLP Annex VI

P-CODES (PRECAUTIONARY STATEMENTS)

P210, P233, P240, P241, P242, P243, P260,
P264, P270, P271, P280, P301+P310,
P302+P352, P303+P361+P353, P304+P340,
P307+P311, P308+P311, P312, P321, P330,
P361, P370+P378, P403+P233, P403+P235,
P405, P501

ECHA CLP Annex VI

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

200 ppm TWA **OSHA 29 CFR 1910.1000**

NIOSH REL

200 ppm TWA / 250 ppm STEL

NIOSH Pocket Guide

ACGIH TLV

— **no canonical**

NIOSH IDLH

6000 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.

CATALOG EQUIVALENTS CROSS-REFERENCE VS MAJOR CHEMICAL SUPPLIERS

SIGMA-ALDRICH

SKU	GRADE	CONC.	MATCH	NOTES
179337	ACS Reagent	99.9%	Exact	ACS Reagent ≥99.9%

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

APPLICATION GUIDANCE

Methanol Technical Grade (Technical Grade) 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 storage.

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

INCOMPATIBILITIES

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

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 chemical-resistant gloves and splash goggles. Bond and ground during transfer to prevent static accumulation. Eliminate ignition sources within vapor envelope.

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)

UN1230, Methanol, 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: 4 fields changed via the provenance/adjudication pipeline. - hazardClass · canonical change (coa.data_provenance / adjudication) - packingGroup · canonical change (coa.data_provenance / adjudication) - signalWord · canonical change (coa.data_provenance / adjudication) - unNumber · canonical change (coa.data_provenance / adjudication)	canonical_change
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.