

TECHNICAL DATA SHEET

Hexane Technical Grade

Technical Grade

CAS NUMBER	ALLIANCE CODE	GENERATED
110-54-3	hexane-technical-grade-1	2026-09-01
REVISION	REVIEWED	
1.3	2026-06-18 · Andre Taki	

IDENTITY & COMPOSITION

PRODUCT NAME	ALLIANCE CODE
Hexane Technical Grade	hexane-technical-grade-1
GRADE	CONCENTRATION
Technical Grade	—
CAS NUMBER	FORMULA
110-54-3 PubChem	C6H14 PubChem
MOLECULAR WEIGHT	PRODUCT TYPE
86.18 PubChem	pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
n-Hexane content	44.0 wt% min.	61.3 wt%	ASTM D5134	Supplier specification
Aniline Point, °F	140 Min	149	—	Supplier specification
API Gravity, @60°F	71.0 – 81.0	76.0	—	Supplier specification
Aromatics by UV	10 wppm max.	2 wppm	AMS_140.31	Supplier specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Bromine Index	30 mgBr/100g max.	5	ASTM D2710	Supplier specification
Corrosion, 3 Hrs. @ 122°F	1 Max	1a	—	Supplier specification
Cyclohexane	1.0 wt% max.	0.1 wt%	ASTM D5134	Supplier specification
Doctor Test	Negative	Passes test	—	Supplier specification
Dry point	70.0 °C max.	68.8 °C	ASTM D1078	Supplier specification
Hexanes, Total Lv%	90.0 Min	93.5	—	Supplier specification
Iso Hexanes, %V	35.0 Max	32.0	—	Supplier specification
Novol. Residue, Mg./100 ml.	1 Max	0.2	—	Supplier specification
N-Hexane, %V	45.0 Min	61.5	—	Supplier specification
Nonvolatile Residue	0.5 mg/100mL max.	0.2 mg/100mL	ASTM D1353	Supplier specification
Total Sulphur	1.0 mg/kg max.	0.2 mg/kg	ASTM D5453	Supplier specification
Benzene	5 wppm max.	0.7 wppm	GC, ASTM D3606	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 Technical Grade	—		— current
ACS Reagent	—		— hexane-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/Suspended Matter	Supplier specification
Form	Liquid	Published reference
Color	30 Min	Supplier specification
Odor	Characteristic	Supplier specification
Specific Gravity (20 °C)	0.6659 – 0.6988	Supplier specification
Density	0.659 at 68 °F (USCG, 1999) – Less dense than water; will float	Published reference
Boiling Point	64.0 °C min.	Supplier specification
Melting Point	–139 °F (NTP, 1992)	Published reference
Flash Point	0.0 Max	Supplier specification
Vapor Pressure	120 mmHg at 68 °F ; 180 mmHg at 77 °F (NTP, 1992)	Published reference
Solubility (water)	less than 1 mg/mL at 61.7 °F (NTP, 1992)	Published reference

MATERIALS OF CONSTRUCTION

MATERIAL	RATING	MAX T (°C)	NOTES	SOURCE
Buna-N (NBR) Elastomer	Good	80	Good for non-aromatic hydrocarbons; poor for aromatics.	Parker O-ring Chemical Compatibility
EPDM Elastomer	Not recommended	—	Swells in hydrocarbons; never use.	Parker O-ring Chemical Compatibility
Viton (FKM) Elastomer	Excellent	100	Standard for hydrocarbon service.	Parker O-ring Chemical Compatibility
PTFE Fluoropolymer	Excellent	200	Universal.	Cole-Parmer Chemical Compatibility
316L Stainless Steel Metal	Excellent	100	Inert.	Cole-Parmer Chemical Compatibility
Carbon Steel Metal	Good	80	Acceptable for dry hydrocarbons.	Cole-Parmer Chemical Compatibility
HDPE Thermoplastic	Not recommended	—	Aromatic solvents swell and dissolve HDPE.	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

UN1208 [49 CFR 172.101](#)

PACKING GROUP

II [Adjudicated](#)

HAZARD CLASS

3 [Adjudicated](#)

PROPER SHIPPING NAME

Hexanes [Adjudicated](#)

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger [Adjudicated](#)

H-CODES (HAZARD STATEMENTS)

H225, H304, H315, H336, H361f, H373, H411

[ECHA CLP Annex VI](#)

P-CODES (PRECAUTIONARY STATEMENTS)

P201, P202, P210, P233, P240, P241, P242,
P243, P260, P261, P264, P270, P271, P273,
P280, P301+P310, P302+P352,
P303+P361+P353, P304+P340, P308+P313,
P312, P314, P321, P331, P332+P313, P362,
P370+P378, P391, P403+P233, P403+P235,
P405, P501

[ECHA CLP Annex VI](#)

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

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

ACGIH TLV

— [no canonical](#)

NIOSH REL

50 ppm TWA [NIOSH Pocket Guide](#)

NIOSH IDLH

1100 ppm (10% LEL) [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
139386	ACS Reagent	95%	Exact	ACS Reagent ≥95%

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

APPLICATION GUIDANCE

Hexane Technical Grade (Technical Grade) is a nonpolar solvent used for hydrocarbon extraction, coatings, and degreasing.

- Coatings, paints, and adhesives
- Industrial degreasing
- Hydrocarbon extraction and recovery
- Rubber and polymer processing
- Cleaning of oil-based residues

Highly flammable and electrostatic-prone. Use grounded transfer equipment and inert gas blanketing where appropriate.

STORAGE & HANDLING

RECOMMENDED STORAGE

Cool, well-ventilated flammable-liquid storage. Tightly sealed containers. Segregate from oxidizers. Bond and ground bulk storage; consider inert gas blanketing for volatile solvents.

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

INCOMPATIBILITIES

Strong oxidizers, halogens, nitric acid. Some grades react with rubber and certain plastics — verify gasket and hose compatibility.

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

Eliminate ignition sources. Use chemical-resistant nitrile or PVA gloves. Bond and ground all transfer equipment. Vapors heavier than air — control ventilation accordingly.

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

SHELF LIFE

36 months [eamaterials.com](https://www.eamaterials.com)

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

UN1208, Hexanes, 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.