

TECHNICAL DATA SHEET

n-Heptane 99% ACS

ACS · 99%

CAS NUMBER
142-82-5

ALLIANCE CODE
n-heptane-99-acs

GENERATED
2026-07-27

1. IDENTITY & COMPOSITION

PRODUCT NAME
n-Heptane 99% ACS

ALLIANCE CODE
n-heptane-99-acs

GRADE
ACS

CONCENTRATION
99%

CAS NUMBER
142-82-5 [PubChem](#)

FORMULA
C7H16 [PubChem](#)

MOLECULAR WEIGHT
100.20 [PubChem](#)

PRODUCT TYPE
solution

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE ACS	99%	—	current
—	99%	—	n-heptane-99-technical

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](#)

DENSITY

0.6838 at 68 °F (USCG, 1999) – Less dense than water; will float [Product record](#)

MELTING POINT

–131 °F (USCG, 1999) [Product record](#)

VAPOR PRESSURE

37.49 mmHg at 70 °F (USCG, 1999)
[Product record](#)

ODOR

Gasoline-like odor [Product record](#)

BOILING POINT

209.1 °F at 760 mmHg (USCG, 1999)
[Product record](#)

FLASH POINT

25 °F (USCG, 1999) [Product record](#)

MATERIALS OF CONSTRUCTION SERVICE ENVELOPE ≈ 99%

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

MATERIAL	RATING	MAX T (°C)	NOTES	SOURCE
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

UN1206 **Vendor Label**

HAZARD CLASS

3 **Adjudicated**

PACKING GROUP

II **Adjudicated**

PROPER SHIPPING NAME

Heptanes **Adjudicated**

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger **Adjudicated**

H-CODES (HAZARD STATEMENTS)

H225, H304, H315, H336, H410

ECHA CLP Annex VI

P-CODES (PRECAUTIONARY STATEMENTS)

P210, P233, P240, P241, P242, P243, P261, P264, P271, P273, P280, P301+P310, P302+P352, P303+P361+P353, P304+P340, P331, P332+P313,...

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

500 ppm TWA **OSHA 29 CFR 1910.1000**

ACGIH TLV

— **unknown**

NIOSH REL

85 ppm TWA / 440 ppm 15-min STEL

NIOSH Pocket Guide

NIOSH IDLH

750 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 n-Heptane 99% 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
246654	ACS Reagent	99%	Exact	ACS Reagent $\geq 99\%$

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

APPLICATION GUIDANCE

n-Heptane 99% ACS (ACS) 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;...

INCOMPATIBILITIES

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

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 ...

SHELF LIFE

24 months from date of manufacture in sealed, original packaging

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

UN1206, Heptanes, 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
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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: 1 field changed via the provenance/adjudication pipeline. dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
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 n-Heptane 99% ACS

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