

SAFETY DATA SHEET

Pentane

SECTION 1. IDENTIFICATION

Product identifier	Pentane
Other identifiers	n-Pentane; CAS 109-66-0; UN1265
Product identity note	This SDS applies to the supplied product identified as greater than 98% n-pentane. The source SDS also mentions mixed pentane isomers; confirm the shipment specification/COA before use if an isomer blend is supplied.
Recommended use	Industrial, laboratory and manufacturing solvent; chemical intermediate.
Restrictions on use	Not recommended for food, beverage, drug, household or consumer use.
Distributor / responsible party	Solvents USA 9436 W Lake Mead Blvd., Suite 5-1216 Las Vegas, NV 89134, USA
Business telephone	708-280-1184
24-hour emergency telephone	CHEMTREC: 800-424-9300 (United States/Canada)

SECTION 2. HAZARD(S) IDENTIFICATION

OSHA HCS classification	Flammable liquid - Category 2 Aspiration hazard - Category 1 Specific target organ toxicity, single exposure - Category 3 (narcotic effects) Hazardous to the aquatic environment, acute - Category 2 Hazardous to the aquatic environment, chronic - Category 2
Signal word	DANGER
Hazard statements	H225 Highly flammable liquid and vapor. H304 May be fatal if swallowed and enters airways. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.



FLAME



EXCLAMATION



HEALTH HAZARD



ENVIRONMENT

Prevention	Keep away from heat, sparks, open flames and hot surfaces. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof equipment and non-sparking tools. Prevent static discharge. Avoid breathing vapor or mist. Use only outdoors or with adequate ventilation. Avoid release to the environment. Wear protective gloves and eye/face protection.
Response	IF SWALLOWED: Immediately call a poison center/doctor. Do not induce vomiting. IF INHALED: Move to fresh air and keep comfortable for breathing; call a poison center/doctor if unwell. IF ON SKIN (or hair): Remove contaminated clothing and rinse skin with water/shower. Collect spillage. In case of fire: Use foam, dry chemical, carbon dioxide or water fog.
Storage	Store in a well-ventilated place. Keep container tightly closed and cool. Store locked up where required.
Disposal	Dispose through an authorized facility under applicable regulations.
Other hazards	Vapor is heavier than air, may travel to an ignition source and flash back. Liquid may accumulate static charge. Aspiration may cause fatal chemical pneumonitis. May irritate skin and eyes.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

n-Pentane	CAS 109-66-0 greater than 98% by weight
Impurities / stabilizers	Not reported as contributing to classification. Confirm exact composition and isomer profile from the shipment specification or COA.

SECTION 4. FIRST-AID MEASURES

Inhalation	Move to fresh air. Keep at rest and comfortable for breathing. If breathing is difficult, trained personnel may give oxygen. If breathing stops, begin artificial respiration with barrier protection. Call a poison center/doctor if unwell.
Skin contact	Remove contaminated clothing and shoes. Rinse skin with water/shower, then wash with soap and water. Obtain medical attention if irritation persists.
Eye contact	Rinse cautiously with water for at least 15 minutes, lifting eyelids. Remove contact lenses if easy. Continue rinsing and obtain medical attention if irritation persists.
Ingestion	Aspiration hazard. Immediately call a poison center/doctor. Do not induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, keep the head below the hips.
Symptoms/effects	Irritation; headache, nausea, dizziness, drowsiness, incoordination, stupor or unconsciousness. Aspiration may cause delayed chemical pneumonitis, pulmonary edema and death.
Medical treatment	Treat symptomatically and supportively. Carefully evaluate gastric emptying because of aspiration risk. Observe for delayed respiratory effects.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable media	Alcohol-resistant foam, dry chemical, carbon dioxide, water spray or water fog.
Unsuitable media	Do not use a direct solid water stream; it may spread burning liquid.
Specific hazards	Extremely flammable vapor/air mixtures. Vapor may travel and flash back. Containers may rupture when heated. Liquid floats on water. Combustion produces carbon monoxide and carbon dioxide.
Firefighter protection	Wear positive-pressure SCBA and full protective clothing. Approach from upwind and cool exposed containers from a protected position. Withdraw if containers discolor or vent.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Evacuate unnecessary personnel. Eliminate all ignition sources. Ventilate. Approach from upwind. Avoid vapor and contact. Use non-sparking, grounded equipment and Section 8 protection.
Environmental precautions	Prevent entry into drains, waterways, soil, basements and confined spaces. Notify authorities when required.
Containment/cleanup	Stop leak if safe. Dike large spills. Use vapor-suppressing foam if appropriate. Absorb with vermiculite, dry sand, earth or other noncombustible compatible material and place in closed, labeled containers. Use only explosion-proof recovery equipment.

SECTION 7. HANDLING AND STORAGE

Safe handling	Use closed transfer and adequate ventilation. Keep away from ignition sources. Ground and bond containers, tanks, piping and transfer equipment. Use explosion-proof equipment and non-sparking tools. Avoid splash filling and static accumulation. Empty containers retain flammable residue; do not cut, weld, drill, grind or pressurize.
Storage	Store locked in a cool, dry, well-ventilated flammable-liquid area away from oxidizers. Keep tightly closed and upright. Protect drums and totes from damage. Use secondary containment and follow applicable fire codes, NFPA 30 and NFPA 77.
Tanker/cargo tank transfer	Only trained personnel may load or unload. Verify product, capacity, valves, hoses, connections and bonding/grounding. Set brakes, chock wheels and attend continuously. Prevent overfill and static discharge. Safely drain and disconnect lines under site procedures and DOT requirements.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA PEL	1,000 ppm (2,950 mg/m ³), 8-hour TWA.
NIOSH REL / IDLH	120 ppm (350 mg/m ³) TWA; 610 ppm (1,800 mg/m ³) 15-minute ceiling. IDLH: 1,500 ppm.
ACGIH TLV	600 ppm TWA according to the supplied SDS; consult the current licensed TLV publication.
Engineering controls	Use closed systems and explosion-proof local/general exhaust. Provide eyewash and safety shower. Consider vapor monitoring for bulk operations.
Eye/face	Chemical splash goggles; add a face shield for transfer, sampling or splash hazards.
Hands/skin	Chemical-resistant gloves and clothing selected from manufacturer permeation data.
Respiratory	Use a NIOSH-approved respirator under a compliant program when controls are insufficient. For unknown or IDLH conditions, use positive-pressure full-face SCBA or equivalent supplied-air protection.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state / color	Clear, colorless liquid
Odor	Gasoline-like
Odor threshold	No reliable data available
Melting/freezing point	Approximately -130 C (-202 F)
Boiling point	Approximately 36 C (97 F)
Flammability	Highly flammable liquid and vapor
Flammability limits	Lower 1.5 vol%; upper 7.8 vol% (source Section 9; source Section 5 reports 1.4-8.0%)
Flash point	Approximately -49 C (-56 F), method not reported
Auto-ignition	Approximately 260 C (500 F)
Decomposition temperature	No data available
pH	Not applicable
Kinematic viscosity	No data available
Solubility	Approximately 38.5 mg/L in water
Log Kow	Approximately 3.39
Vapor pressure	Approximately 514 mm Hg at 25 C
Evaporation rate	No data available
Density	Approximately 0.62 g/cm ³ at 20 C
Relative vapor density	2.5 (air = 1)
Molecular weight	72.15 g/mol
Particle characteristics	Not applicable - liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity	May react vigorously with strong oxidizers; fire and explosion hazard.
Stability	Stable under recommended conditions.
Hazardous reactions	Flammable vapor/air mixtures may ignite or explode. Hazardous polymerization will not occur.
Conditions to avoid	Heat, sparks, flames, static discharge, confined spaces and other ignition sources.
Incompatible materials	Strong oxidizing agents.
Decomposition products	Carbon monoxide, carbon dioxide and irritating/toxic smoke during combustion.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely routes	Inhalation, ingestion, skin and eye contact.
Acute effects	Vapor may irritate the respiratory tract. High concentrations may cause headache, nausea, dizziness, drowsiness, incoordination, stupor or unconsciousness.
Eye/skin	May cause irritation. Repeated skin contact may cause defatting and dermatitis.
Aspiration	May be fatal if swallowed and enters airways. Aspiration can cause chemical pneumonitis, pulmonary edema and severe lung damage.
Acute toxicity data	Quantitative acute-toxicity values in the source were not sufficiently documented for inclusion as definitive product values.
Target organs	Central nervous system, respiratory system, skin, eyes and lungs.
Sensitization/mutagenicity	Not classified based on available information.
Carcinogenicity	n-Pentane is not listed as a carcinogen by OSHA, NTP or IARC.
Reproductive toxicity	Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	Toxic to aquatic life with long-lasting effects. Source reports fish LC50 values approximately 9.7-11.59 mg/L.
Persistence/degradability	Expected to biodegrade; volatilization is an important environmental fate pathway.
Bioaccumulation	Potential for bioaccumulation is indicated by log Kow approximately 3.39.
Mobility/other effects	Highly volatile; expected to volatilize rapidly from surface water. Reported low mobility in soil. Prevent environmental release.

SECTION 13. DISPOSAL CONSIDERATIONS

Recover or recycle where feasible. Dispose through an authorized hazardous-waste contractor. Unused product may exhibit RCRA ignitability (D001); the generator must make the final determination. Prevent release to drains or waterways. Empty drums, totes and cargo tanks may retain flammable vapor; do not cut, weld, grind, drill, pressurize or reuse unless properly cleaned, gas-freed and reconditioned.

SECTION 14. TRANSPORT INFORMATION

U.S. DOT	UN1265, Pentanes, 3, PG I; Emergency Response Guide 128.
TDG (Canada)	UN1265, PENTANES, 3, PG I. Verify current Canadian requirements before shipment.
IATA/ICAO	UN1265, Pentanes, 3, PG I. Current packing instructions, aircraft restrictions and quantity limits apply.
IMDG	UN1265, PENTANES, 3, PG I. Evaluate marine-pollutant status and markings against the current composition and IMDG criteria.
Packaging precautions	Drums, totes/IBCs and highway cargo tanks must be authorized for Packing Group I, compatible, closed, marked, labeled/placarded and documented under current modal requirements.
Source discrepancy	The supplied 2020 SDS lists Packing Group II. Current U.S. DOT references identify UN1265 Pentanes as Packing Group I; the current regulatory entry controls.

SECTION 15. REGULATORY INFORMATION

EPCRA 311/312	Hazard categories include flammable, aspiration and specific target organ toxicity (single exposure).
EPCRA 313	n-Pentane is not subject to Section 313 reporting.
CERCLA / EPCRA 302	No CERCLA reportable quantity or EPCRA 302 threshold planning quantity assigned in the supplied source.
RCRA	Unused material may be characteristic hazardous waste D001.
TSCA	Confirm current inventory status and any applicable restrictions for the exact commercial product.
California Proposition 65	The supplied SDS reports no listed chemicals. Confirm the actual grade and impurity profile before relying on this statement.

SECTION 16. OTHER INFORMATION

Preparation date	July 29, 2026
Revision	1.0 - Initial Solvents USA issue
Primary sources	Supplied Pentane SDS revised July 23, 2020; current NIOSH Pocket Guide data for n-pentane; current U.S. DOT/PHMSA hazardous-material references.
Revision notes	Updated distributor identity, packaging/transfer guidance and current exposure information. Corrected transport packing group from source PG II to current PG I. Retained source Category 2 flammable-liquid classification; confirm with product-specific test data because the reported initial boiling point is near the GHS category threshold.
NFPA 704 (reference)	Health 1 Flammability 4 Instability 0

Distributor statement: Solvents USA distributes this product by direct shipment and does not manufacture, blend, handle or warehouse it.

Information is intended for hazard communication and is not a specification or warranty. Users must determine suitability and compliance. Product identity, composition and transport packaging must be confirmed for each shipment. A qualified SDS/regulatory professional should approve before commercial release.

END OF SAFETY DATA SHEET