SAFETY DATA SHEET

n-Hexane — Laboratory Reagent, Analytical Reagent and HPLC grades

Prepared in accordance with 29 CFR 1910.1200 (OSHA Hazard Communication Standard, 2024 amendment / GHS Rev. 7), UN GHS, US DOT 49 CFR Parts 171–180 and Canada HPR (SOR/2015-17)

SDS number	**HP-SDS-20400-US-01**
Version / Revision	Version 1.0
Issue date	01 November 2026
Supersedes	Not applicable (first issue)
Review due	01 November 2029, or earlier if new hazard information becomes available
Companion sheet	A GB/EU sheet for supply by Highpuris Ltd will be issued separately. Do not substitute one sheet for the other — the classification is the same but the exposure limits, supply restrictions and legal references are not.

1 SECTION 1: IDENTIFICATION

1.1 Product identifier

Product name	**n-Hexane**
Product description	Mixture — n-hexane with minor C_6 isomers (mainly 2-methylpentane and 3-methylpentane); the n-hexane content governs the classification. Assay (GC) ≥ 95.0 % w/w (Laboratory Reagent and HPLC) or ≥ 96.0 % w/w (Analytical Reagent). All grades carry the same hazard classification and transport description.
Synonyms	Hexane; normal-Hexane; Hexyl hydride; n-Hexane (95 %); Hexane
CAS number	110-54-3
EC (EINECS) number	203-777-6
EU Index number	601-037-00-0
REACH registration number	Not applicable to supply in the United States. A REACH registration (or coverage under a registrant's supply chain) is required before placement in the EU/EEA or Northern Ireland; UK REACH applies to Great Britain.
Molecular formula	C_6H_{14} ($CH_3(CH_2)_4CH_3$)
Molecular weight	86.18 g/mol
Highpuris product code	**20400** — the 9-digit catalogue SKUs below are built as product code · grade · pack
Pack sizes covered	1 L, 2.5 L and 4 L glass bottles (GL45), 5 L HDPE containers and 25 L HDPE drums, in UN-certified multi-unit shipping cases

Catalogue SKUs covered by this SDS

Grade	Assay (GC)	Pack size and SKU
Laboratory Reagent	≥ 95.0 %	1 L **204000141** · 2.5 L **204000142** · 5 L **204000144** · 25 L **204000162**
Analytical Reagent	≥ 96.0 %	1 L **204000241** · 2.5 L **204000242** · 5 L **204000244**
HPLC	≥ 95.0 %	1 L **204000641** · 2.5 L **204000642** · 4 L **204000643**

1.2 Relevant identified uses of the substance and uses advised against

- **Identified uses:** laboratory reagent and non-polar extraction and chromatography solvent; HPLC and normal-phase mobile-phase component; sample preparation, extraction of lipids and non-polar analytes, cleaning and degreasing of laboratory glassware; further formulation and repackaging by professional users.

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- **Uses advised against:** not for food, drug, pesticide, biocidal, cosmetic, medicinal, household or consumer use. Not intended for use by the general public. Not to be used in any application resulting in human ingestion, direct dermal application, or in adhesives or spray products supplied to the general public.

1.3 Details of the supplier of the safety data sheet

Supplier	**Highpuris LLC** 9920 Pacific Heights Blvd, Suite 150 San Diego, CA 92121-4361 United States of America
Telephone	+1 (401) 288-1196
E-mail (SDS contact)	admin@highpuris.com · noreply@highpuris.com
Website	www.highpuris.com

1.4 Emergency telephone number

24-hour emergency (USA / Canada)	**CHEMTREC 1-800-424-9300**
24-hour emergency (international)	**CHEMTREC +1 703-527-3887** (collect calls accepted)
CHEMTREC contract number	**CCN 1024800** — Highpuris LLC, registered August 2026. Quote this number when calling; it must appear with the emergency telephone number on shipping papers under 49 CFR 172.604
Non-emergency (business hours)	+1 (401) 288-1196, 09:00 – 17:00 Pacific Time, Monday to Friday

2 SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture

Classification under 29 CFR 1910.1200 (OSHA HCS 2024), UN GHS Rev. 7, EU CLP (EC) No 1272/2008 and Canada HPR:

Hazard class	Category	Hazard statement
Flammable liquids	Category 2	H225 — Highly flammable liquid and vapor
Skin corrosion / irritation	Category 2	H315 — Causes skin irritation
Serious eye damage / eye irritation	Category 2	H319 — Causes serious eye irritation
Reproductive toxicity	Category 2	H361f — Suspected of damaging fertility
Specific target organ toxicity, single exposure (narcotic effects)	Category 3	H336 — May cause drowsiness or dizziness
Specific target organ toxicity, repeated exposure (CNS, peripheral nervous system, heart, liver, blood)	Category 1	H372 — Causes damage to organs through prolonged or repeated exposure
Aspiration hazard	Category 1	H304 — May be fatal if swallowed and enters airways
Hazardous to the aquatic environment, long-term (chronic)	Category 2	H411 — Toxic to aquatic life with long lasting effects

The harmonised EU classification for n-hexane (Index No. 601-037-00-0) is Flam. Liq. 2, H225; Repr. 2, H361f; Asp. Tox. 1, H304; STOT RE 2, H373; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Chronic 2, H411, with a specific concentration limit of STOT RE 2 at C ≥ 5 %. The US OSHA classification above follows the manufacturer's assignment of STOT RE Category 1 (H372) and also includes Eye Irritation Category 2 (H319); the more protective category is shown on the US label. Aspiration hazard is the label-governing statement for ingestion; do NOT induce vomiting.

2.2 GHS label elements

Hazard pictograms — required on the label and on every shipped container:



GHS02 — Flame



GHS07 — Exclamation mark



GHS08 — Health hazard



GHS09 — Environment

Pictograms must be a square set on a point, with a black symbol on a white ground and a red border wide enough to be clearly visible. Minimum size is one-fifteenth of the label surface area and never smaller than 10 mm × 10 mm (16 mm × 16 mm where the package holds more than 3 L). Where the corresponding DOT transport label is displayed on the outer packaging, the duplicate GHS pictogram may be omitted from that outer packaging under 29 CFR 1910.1200(f)(5); all pictograms remain required on the inner container label.

Signal word	**DANGER**
Hazard statements	H225 — Highly flammable liquid and vapor. H304 — May be fatal if swallowed and enters airways. H315 — Causes skin irritation. H319 — Causes serious eye irritation. H336 — May cause drowsiness or dizziness. H361f — Suspected of damaging fertility. H372 — Causes damage to organs through prolonged or repeated exposure. H411 — Toxic to aquatic life with long lasting effects.

Precautionary statements — Prevention

- P201 — Obtain special instructions before use.
- P202 — Do not handle until all safety precautions have been read and understood.
- P210 — Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 — Keep container tightly closed.
- P240 — Ground and bond container and receiving equipment.
- P241 — Use explosion-proof electrical, ventilating and lighting equipment.
- P242 — Use non-sparking tools.
- P243 — Take action to prevent static discharges.
- P260 — Do not breathe mist, vapours or spray.
- P264 — Wash hands, face and exposed skin thoroughly after handling.
- P271 — Use only outdoors or in a well-ventilated area.
- P273 — Avoid release to the environment.
- P280 — Wear protective gloves, protective clothing, eye protection and face protection.

Precautionary statements — Response

- P301 + P310 — IF SWALLOWED: Immediately call a POISON CENTER or doctor.
- P331 — Do NOT induce vomiting.
- P303 + P361 + P353 — IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P304 + P340 — IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305 + P351 + P338 — IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P308 + P313 — IF exposed or concerned: Get medical advice / attention.
- P332 + P313 — If skin irritation occurs: Get medical advice / attention.
- P337 + P313 — If eye irritation persists: Get medical advice / attention.
- P362 + P364 — Take off contaminated clothing and wash it before reuse.
- P370 + P378 — In case of fire: use carbon dioxide, dry chemical or alcohol-resistant foam to extinguish.
- P391 — Collect spillage.

Precautionary statements — Storage and disposal

- P403 + P233 — Store in a well-ventilated place. Keep container tightly closed.
- P403 + P235 — Store in a well-ventilated place. Keep cool.
- P405 — Store locked up.
- P501 — Dispose of contents and container in accordance with federal, state, provincial and local regulations.

2.3 Other hazards which do not result in classification

- Vapour is heavier than air (relative vapour density 2.97) and can travel a considerable distance along the ground to a source of ignition and flash back. The flash point is −22 °C (−7.6 °F), so explosive vapour–air mixtures (1.1 – 7.5 vol %) can form at normal ambient temperatures; the autoignition temperature is 223 °C (433.4 °F).
- Non-polar, low-conductivity liquid: flow, filling, filtering and splashing generate and accumulate static charge that can ignite the vapour. Bonding and grounding are essential.
- Neurotoxic on chronic exposure: n-hexane is metabolised to 2,5-hexanedione, which causes peripheral neuropathy (numbness, tingling and weakness of the hands and feet) after repeated inhalation or skin absorption, even at concentrations that cause no acute symptoms. Skin absorption contributes to the body burden (ACGIH skin notation).

- Lighter than water (density 0.659) and insoluble in water: burning or spilled liquid floats and spreads on water, and a water jet can carry the fire. Containers may explode when heated.
- Reacts violently with strong oxidising agents and halogens; avoid exposure to light and heat.
- The substance is not considered to meet the PBT or vPvB criteria (persistence is unlikely on the available data) and is not an identified endocrine disruptor. It is a volatile organic compound and a US hazardous air pollutant.

2.4 Unknown acute toxicity

Not applicable. Acute toxicity data are available for the substance; no component of unknown acute toxicity is present.

3 SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Mixture — n-hexane with minor C_6 isomers; the n-hexane content governs the classification. The grade-specific assay is given in Section 1.

Chemical name	CAS No.	EC No.	Conc. (% w/w)	GHS classification of the ingredient
n-Hexane	110-54-3	203-777-6	≥ 95	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Repr. 2, H361f; STOT SE 3, H336; STOT RE 1, H372 (OSHA; EU harmonised STOT RE 2, H373); Asp. Tox. 1, H304; Aquatic Chronic 2, H411
2-Methylpentane	107-83-5	203-523-4	< 2.5	Flam. Liq. 2, H225; Skin Irrit. 2, H315; STOT SE 3, H336; Asp. Tox. 1, H304; Aquatic Chronic 2, H411
3-Methylpentane	96-14-0	202-481-4	< 1	Flam. Liq. 2, H225; Skin Irrit. 2, H315; STOT SE 3, H336; Asp. Tox. 1, H304; Aquatic Chronic 2, H411

EU Index number for n-hexane: 601-037-00-0. Specific concentration limit in EU CLP Annex VI: STOT RE 2 / H373 at C ≥ 5 %.

Impurities and stabilising additives: none deliberately added. The balance of the assay consists of isomeric C_6 hydrocarbons; trace impurities are controlled to the grade specification and are not present at levels that alter the classification.

4 SECTION 4: FIRST-AID MEASURES

4.1 Description of first-aid measures

General. Move the casualty out of the danger area. Rescuers must protect themselves — remove all ignition sources and wear eye/face protection, gloves and, where vapour is present, respiratory protection. Remove all contaminated clothing and footwear immediately; clothing soaked with solvent is a fire hazard. Never give anything by mouth to an unconscious or convulsing person. Show this Safety Data Sheet to the attending physician. If symptoms persist, call a physician.
Inhalation. Move the casualty to fresh air at once and keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should give oxygen. If breathing has stopped, give artificial respiration — use a bag-valve mask or other mechanical device rather than mouth-to-mouth. Get medical attention if symptoms occur (headache, dizziness, drowsiness, nausea). There is a risk of serious damage to the lungs by aspiration; keep the casualty under medical observation.
Skin contact. Wash off immediately with plenty of water for at least 15 minutes, removing contaminated clothing, shoes and jewellery while flushing. Wash contaminated clothing before re-use. If skin irritation persists, call a physician. Do not use solvents or thinners to clean the skin.
Eye contact. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses if present and easy to do, without interrupting the flushing. Get medical attention, especially if irritation persists.
Ingestion. Do NOT induce vomiting — aspiration of the liquid into the lungs can cause chemical pneumonitis, which may be fatal. Rinse the mouth with water; the manufacturer advises drinking plenty of water afterwards, which should be given only to a fully conscious casualty, in small sips, without delaying transport to hospital. Call a physician or poison control centre immediately. If vomiting occurs naturally, have the victim lean forward to reduce the risk of aspiration.

4.2 Most important symptoms and effects, both acute and delayed

- Inhalation: headache, dizziness, drowsiness, tiredness, nausea and vomiting; at high vapour concentrations narcosis, loss of coordination and unconsciousness. Irritation of the nose and throat.
- Skin: defatting and irritation, redness and dryness; repeated or prolonged contact causes dermatitis and permits absorption of the solvent.
- Eyes: irritation, redness, lacrimation and pain; reversible with prompt flushing.
- Ingestion / aspiration: nausea and vomiting; if the liquid enters the airways, coughing, choking, chemical pneumonitis and pulmonary oedema, which may be delayed and can be fatal.
- Chronic: repeated or prolonged exposure can cause peripheral neuropathy (numbness, tingling, muscle weakness of the hands and feet) through the metabolite 2,5-hexanedione, together with possible effects on fertility.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically and supportively.

- Aspiration hazard: do not perform gastric lavage or induce emesis. If gastric decontamination is considered after a large ingestion, it should be carried out only by medical staff after airway protection. Observe for delayed pulmonary effects; a chest radiograph may be indicated.
- Use sympathomimetic amines (adrenaline / epinephrine) with caution after significant exposure: hydrocarbon solvents may sensitise the myocardium to catecholamines.
- Following repeated or suspected chronic exposure, evaluate the peripheral nervous system (nerve conduction studies). The ACGIH biological exposure index is 0.5 mg/L 2,5-hexanedione in urine (end of shift).

5 SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

- Suitable: carbon dioxide, dry chemical, dry sand or alcohol-resistant foam. Water mist or fog may be used to cool closed containers exposed to fire.
- Unsuitable: do NOT use a solid water jet. The product is lighter than water and insoluble in it, so water may be ineffective and can spread the burning liquid in an area where the water cannot be contained.

5.2 Special hazards arising from the substance or mixture

- Highly flammable liquid (flash point −22 °C / −7.6 °F). Vapour is heavier than air (relative vapour density 2.97), may travel along the ground to a distant source of ignition and flash back. Vapour–air mixtures are explosive between 1.1 and 7.5 vol %.
- Autoignition temperature 223 °C (433.4 °F).
- Containers may explode when heated owing to pressure build-up. The low-conductivity liquid can accumulate static charge during transfer.
- Hazardous combustion products: carbon monoxide (CO) and carbon dioxide (CO_2); incomplete combustion produces soot and irritating hydrocarbon vapours.
- Burning liquid floats on water and can spread fire across drains, sumps and watercourses.

5.3 Advice for fire-fighters

- As in any fire, wear a positive-pressure self-contained breathing apparatus (MSHA/NIOSH-approved or equivalent) and full protective gear.
- Evacuate and isolate the area. Approach from upwind. Stay out of low areas where vapour may collect.
- Use water spray to cool fire-exposed containers and protect personnel; withdraw immediately if a rising sound from a venting safety device or discolouration of a tank occurs.
- Prevent run-off water from entering drains and watercourses; collect contaminated fire-fighting water separately for disposal.
- Refer to ERG 2024 Guide 128 (Flammable liquids — non-polar / water-immiscible).

6 SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel. Evacuate the area immediately. Remove all sources of ignition — no smoking, flares, sparks, flames or switching of electrical equipment in the immediate area. Move upwind. Restrict access. Do not walk through spilled material. Avoid contact with liquid and vapour. Ensure adequate ventilation and take precautionary measures against static discharges. Alert the site emergency response team.

For emergency responders. Do not attempt response without suitable PPE: chemical splash goggles with full face shield, flame-resistant antistatic clothing, fluoroelastomer (Viton®) or PVA gloves, and a NIOSH-approved air-purifying respirator with organic-vapour cartridges (EN 14387 type A) or SCBA where vapour concentrations are unknown or exceed exposure limits. Use only intrinsically safe equipment, explosion-proof ventilation and non-sparking tools. Ventilate confined spaces before entry. Initial isolation of at least 50 m (150 ft) in all directions for a small liquid spill is recommended; increase the distance for large spills and consult ERG Guide 128.

6.2 Environmental precautions

- Do not flush into surface water or the sanitary sewer system. Prevent entry into drains, sewers, surface water, groundwater and soil. Dyke or bund the spill.
- The product is toxic to aquatic life with long lasting effects, floats on water and evaporates; vapour in sewers and low-lying drainage can form an explosive atmosphere.
- Report releases as required by law. Under CERCLA, a release of 5,000 lb (2,270 kg) or more of n-hexane in a 24-hour period must be reported immediately to the National Response Center (1-800-424-8802); for this product at 95 % n-hexane this corresponds to approximately 5,260 lb (about 2,390 kg, roughly 960 US gal) of product.

6.3 Methods and material for containment and cleaning up

- Remove all sources of ignition. Stop the leak if it can be done without risk. Upright leaking containers and transfer the contents to a sound, labelled, closed container suitable for flammable solvents.
- Soak up the spill with inert, non-combustible absorbent — dry sand, earth, vermiculite, diatomaceous earth or a proprietary solvent absorbent. Do NOT use combustible absorbents such as sawdust, paper or cloth.

- Use spark-proof tools and explosion-proof equipment. A vapour-suppressing (alcohol-resistant) foam blanket may be applied to reduce vapour release from a large spill.
- Collect the absorbed material into labelled, sealed containers (keep in suitable, closed containers for disposal) and remove them from the area promptly; saturated absorbent remains flammable.
- Do not wash the residue into drains. Clean the area with detergent solution only after the bulk has been removed, collecting the wash water for permitted disposal.
- Ventilate the area thoroughly and monitor for flammable atmosphere (below 10 % of the lower explosion limit) before releasing the area.

6.4 Reference to other sections

See Section 8 for exposure controls and personal protection, and Section 13 for disposal considerations.

7 SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

- Handle only in a chemical fume hood or under local exhaust ventilation. Ensure adequate ventilation, especially in confined areas. Avoid breathing vapour and avoid ingestion.
- Keep away from open flames, hot surfaces, sparks and other ignition sources. No smoking. Use explosion-proof electrical, ventilating and lighting equipment and non-sparking tools.
- To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded and bonded when transferring; take precautionary measures against static discharges. Do not pour freely from height; use dip pipes or bottom filling for transfers of larger volumes.
- Wear the personal protective equipment specified in Section 8 at all times when handling. Do not get in eyes, on skin, or on clothing.
- Obtain special instructions before use and do not handle until all safety precautions have been read and understood. Pregnant women and persons wishing to conceive should consult their occupational health adviser before working with n-hexane.
- Do not eat, drink or smoke in the handling area. Wash hands, face and exposed skin thoroughly after handling.
- Keep the container tightly closed when not in use. Do not return unused material to the original container.
- Ensure an emergency eyewash station and safety shower are within 10 seconds' unobstructed travel of the work area.
- Empty containers retain product residue and flammable vapour and remain hazardous — do not cut, weld, drill, grind or reuse.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions	Keep containers tightly closed in a dry, cool and well-ventilated place in a flammables area. Keep away from heat, sparks, flame and direct sunlight. Keep locked up or in an area accessible only to authorised, trained personnel. Store in accordance with NFPA 30 / 29 CFR 1910.106 (Category 2 flammable liquid — Class IB).
Recommended temperature	Cool, below 25 °C (77 °F) where practicable, to limit vapour pressure and container pressure build-up. The product does not freeze under normal storage conditions (melting point −95 °C).
Containment	Store in an approved flammable-liquids cabinet or a flammables store with bunded or kerbed floor and secondary containment of at least 110 % of the largest container. Use grounded storage and dispensing equipment.
Suitable materials	Original supplier packaging: borosilicate glass with PTFE-faced closures; HDPE for the short-to-medium term; PTFE, PVDF, FEP, stainless steel and carbon steel (grounded) for equipment.
Unsuitable materials	Natural rubber, butyl rubber, neoprene, EPDM, PVC, polystyrene and similar plastics and elastomers swell, soften or dissolve; do not use as gaskets, seals, tubing or containers.
Incompatible storage	Segregate from strong oxidising agents (nitric acid, perchlorates, peroxides, permanganates, chromium trioxide, hypochlorites) and halogens (chlorine, bromine, fluorine). Do not store with acids, oxidisers or compressed oxidising gases in the same cabinet.
Shelf life	Indefinite when stored as specified in unopened original packaging, protected from light and heat. HPLC grade should be opened only in a clean environment, after which UV transmittance and purity specifications can no longer be guaranteed.

7.3 Specific end use(s)

Laboratory reagent, extraction and chromatography solvent. No further specific guidance beyond the identified uses in Section 1.2.

8 SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits — n-hexane (CAS 110-54-3)

Source	Type	Value
OSHA PEL (29 CFR 1910.1000, Table Z-1)	8-hour TWA	500 ppm (1,800 mg/m³). The vacated 1989 limit of 50 ppm (180 mg/m³) is not enforceable.
NIOSH REL	10-hour TWA	50 ppm (180 mg/m³)
ACGIH TLV	8-hour TWA	50 ppm; Skin notation
NIOSH IDLH	Immediately dangerous to life or health	1,100 ppm (10 % of the lower explosion limit)
Cal/OSHA PEL (8 CCR 5155)	8-hour TWA	50 ppm
Mexico OEL (NOM-010-STPS)	TWA	50 ppm
EU IOELV (Directive 2006/15/EC)	8-hour TWA	72 mg/m³ (20 ppm)
ACGIH BEI	2,5-Hexanedione in urine, end of shift	0.5 mg/L
ACGIH TLV — other hexane isomers (2-methylpentane, 3-methylpentane)	TWA / STEL	500 ppm / 1,000 ppm

8.2 Exposure controls

Appropriate engineering controls

- Use in a certified chemical fume hood with a minimum face velocity of 0.5 m/s (100 ft/min), or under equivalent local exhaust ventilation captured at the point of generation.
- Provide general dilution ventilation sufficient to keep airborne concentrations below the exposure limits and well below the lower explosion limit. Electrical equipment, exhaust ducting and fans must be explosion-proof; ground and bond all metal parts.
- Safety shower and eyewash station must be immediately available (ANSI/ISEA Z358.1).
- Because the primary chronic hazard is peripheral neuropathy and the substance is absorbed through the skin, apply engineering controls and skin protection together; consider biological monitoring (2,5-hexanedione in urine) where regular exposure is possible.

Eye and face protection

- Chemical safety goggles conforming to ANSI/ISEA Z87.1 (29 CFR 1910.133) or EN 166, worn together with a full face shield whenever there is any risk of splashing, pouring or pressurised release. Ordinary safety spectacles are not adequate.

Skin and body protection

- Gloves: fluoroelastomer (Viton®) or polyvinyl alcohol (PVA, keep dry) for prolonged or immersion contact. Nitrile (≥ 0.4 mm) is suitable only for incidental splash and must be changed immediately on contact. Natural rubber latex, butyl rubber, neoprene and PVC are not recommended. Confirm performance and breakthrough time with the glove manufacturer for the specific task.
- Body: flame-resistant, antistatic laboratory coat or coveralls for small-scale work; a chemically resistant antistatic suit (Type 3/4, EN 14605) for bulk transfer, drumming and spill response. Wear appropriate protective gloves and clothing to prevent skin exposure.
- Feet: closed, chemically resistant, antistatic safety footwear. Trouser legs worn outside the boots.

Respiratory protection

- Not normally required where work is carried out in an effective fume hood. If exposure limits are exceeded, or if irritation or other symptoms are experienced, use a NIOSH/MSHA- or EN 149-approved respirator with an organic gases and vapours filter, type A (brown), conforming to EN 14387, within its assigned protection factor.
- For unknown concentrations, oxygen-deficient atmospheres, emergency response or concentrations at or above 1,100 ppm (IDLH), use a positive-pressure self-contained breathing apparatus or a supplied-air respirator with escape bottle.
- Respirator use requires a written programme under 29 CFR 1910.134, including medical evaluation, fit testing and training.

Environmental exposure controls

- Do not discharge to the environment. Prevent release to drains and watercourses. Route vent gases through a vapour recovery or activated-carbon system where necessary. Collect solvent waste for permitted disposal.

9 SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Property	Value
Physical state	Liquid
Colour	Colourless
Odour	Petroleum distillates (hydrocarbon-like)

Property	Value
Odour threshold	No data available
Melting point / freezing point	−95 °C (−139 °F)
Boiling point / initial boiling point	69 °C (156.2 °F) at 760 mmHg (101.3 kPa)
Flammability	Highly flammable liquid and vapour (Category 2). Classified on the basis of test data.
Lower / upper explosion limit	1.1 vol % / 7.5 vol % in air
Flash point	−22 °C (−7.6 °F); test method not stated by the manufacturer
Auto-ignition temperature	223 °C (433.4 °F)
Decomposition temperature	No data available
pH	Not applicable — water-insoluble hydrocarbon
Kinematic / dynamic viscosity	Dynamic viscosity 0.31 mPa·s at 20 °C (kinematic ≈ 0.47 mm^2/s)
Solubility (water)	Insoluble; the liquid floats on water
Solubility (other)	Miscible with most non-polar organic solvents such as diethyl ether, chloroform and other hydrocarbons; soluble in ethanol
Partition coefficient n-octanol/water (log Kow)	4.11
Vapour pressure	160 mbar (16 kPa) at 20 °C
Density / relative density	0.659 g/cm^3 (relative density 0.659)
Relative vapour density	2.97 (air = 1) — vapour is heavier than air and will collect in low areas
Particle characteristics	Not applicable (liquid)
Molecular weight	86.18 g/mol
Evaporation rate	No data available (rapidly evaporating, highly volatile solvent)
Oxidising properties	None
Explosive properties	Not explosive; vapours form explosive mixtures with air above the flash point
Surface tension	No data available
Concentration	≥ 95.0 % w/w (Laboratory Reagent and HPLC); ≥ 96.0 % w/w (Analytical Reagent) — assay by GC

9.2 Other information

No additional physical or chemical hazard information. Test data above relate to n-hexane unless otherwise stated; softening point and bulk density are not applicable to a liquid.

10 SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

A non-polar saturated hydrocarbon that is chemically stable under normal conditions but highly flammable. Reacts vigorously with strong oxidising agents and halogens. Reactive hazard: none known, based on the information available.

10.2 Chemical stability

Stable under the recommended storage and handling conditions. Vapour–air mixtures are sensitive to ignition by static discharge, heat, flames and sparks. Hazardous polymerisation does not occur.

10.3 Possibility of hazardous reactions

- Violent or explosive reaction with strong oxidising agents — nitric acid, perchlorates, peroxides, permanganates, chromium trioxide and liquid oxygen.
- Vigorous, potentially explosive reaction with halogens (chlorine, bromine, fluorine), especially in light or with heat.
- Vapours form explosive mixtures with air; ignition by static discharge, sparks or hot surfaces can lead to flash fire or explosion in enclosed spaces.
- None under normal processing and when used as directed.

10.4 Conditions to avoid

Heat, flames, sparks, hot surfaces and other ignition sources; static discharge; exposure to light; direct sunlight; incompatible products; confinement of vapour in closed or low-lying spaces.

10.5 Incompatible materials

Class	Examples
Oxidising agents	Nitric acid, perchloric acid and perchlorates, hydrogen peroxide and other peroxides, permanganates, chromium trioxide, dinitrogen tetroxide, hypochlorites, liquid oxygen
Halogens	Chlorine, bromine, fluorine and interhalogen compounds
Elastomers and plastics	Natural rubber, butyl rubber, neoprene, EPDM, PVC and polystyrene (swell, soften or dissolve)
Ignition sources	Open flames, hot surfaces, sparks, electrical equipment not rated for flammable atmospheres, static discharge

10.6 Hazardous decomposition products

Carbon monoxide (CO) and carbon dioxide (CO_2) on combustion; soot and irritating hydrocarbon vapours in incomplete combustion.

11 SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in 29 CFR 1910.1200(c) / GHS

Likely routes of exposure: inhalation of vapour, skin and eye contact, and accidental ingestion with aspiration into the lungs. The vapour is readily absorbed through the lungs and the liquid through the skin.

Endpoint	Data and conclusion
Acute toxicity — oral	LD_{50} (rat): 25 g/kg bw (≈ 25,000 mg/kg). Low acute oral toxicity; the principal ingestion hazard is aspiration into the lungs rather than systemic toxicity. Not classified for acute oral toxicity.
Acute toxicity — dermal	LD_{50} (rabbit): 3,000 mg/kg bw. Not classified.
Acute toxicity — inhalation	LC_{50} (rat, 4 h): 48,000 ppm (vapour). Not classified; narcotic effects at high concentrations are covered by STOT SE 3.
Skin corrosion / irritation	Irritating. Repeated or prolonged contact defats the skin and causes dermatitis. Classified Skin Irritation Category 2.
Serious eye damage / irritation	Irritating to the eyes; reversible with prompt flushing. Classified Eye Irritation Category 2 (H319).
Respiratory or skin sensitisation	Not a skin sensitiser and not a respiratory sensitiser. Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met. Mutagenic effects have been reported in some experimental animal studies, but they do not meet the criteria for classification.
Carcinogenicity	Not listed by IARC, NTP, ACGIH or OSHA as a carcinogen (also true of the isomers 2- and 3-methylpentane). Tumorigenic effects have been reported in experimental animals. Not classified.
Reproductive toxicity	Category 2 — suspected of damaging fertility (H361f). Experiments on laboratory animals have shown reproductive, developmental and teratogenic effects; the male reproductive system (testicular effects) is the principal target. Listed under California Proposition 65 (reproductive toxicity).
STOT — single exposure	Category 3, narcotic effects (H336). Inhalation of high vapour concentrations causes headache, dizziness, drowsiness, tiredness, nausea and vomiting, and at higher concentrations narcosis and loss of consciousness. Target organs: central nervous system and respiratory system.
STOT — repeated exposure	Category 1 (H372; EU harmonised Category 2, H373). Chronic exposure by inhalation or skin absorption causes peripheral neuropathy: n-hexane is metabolised to 2,5-hexanedione, a gamma-diketone that damages peripheral nerve axons, producing numbness, tingling, weakness and muscle atrophy of the extremities, which may be only partly reversible and can progress after exposure ends. Other target organs: central nervous system, heart, liver, blood and reproductive system. The ACGIH biological exposure index is 0.5 mg/L 2,5-hexanedione in urine.
Aspiration hazard	Category 1 (H304). The liquid has a very low viscosity (0.31 mPa·s at 20 °C) and surface tension; aspiration into the lungs during swallowing or vomiting can cause chemical pneumonitis, pulmonary oedema and death. Do NOT induce vomiting.

11.2 Other information

Target organs: peripheral nervous system, central nervous system, skin, eyes, respiratory system, heart, liver, blood and reproductive system. Persons with pre-existing peripheral neuropathy (for example diabetic neuropathy), liver disease, skin disorders or chronic respiratory disease may be at increased risk from exposure; methyl ethyl ketone and methyl n-butyl ketone can potentiate the neurotoxicity of n-hexane. Endocrine disrupting properties: this product does not contain any known or suspected endocrine disruptors.

Toxicological values are those reported for n-hexane by the manufacturer and in the open literature; the 2- and 3-methylpentane isomers, which are present at low levels, are classified for flammability, skin and aspiration hazards but not for chronic neurotoxicity. The assessment of peripheral neuropathy is based on n-hexane.

12 SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Endpoint	Value
Fish — acute	LC_{50} (Pimephales promelas, fathead minnow, 96 h, flow-through): 2.1 – 2.98 mg/L.
Aquatic invertebrates — acute	EC_{50} (water flea, 48 h): 3.87 mg/L.
Algae	No data available.
Microorganisms	No data available (Microtox not listed).

Toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment (Aquatic Chronic Category 2). The product floats on water and is highly volatile, so exposure in open water is generally short-lived, but a spill into a small or confined water body is hazardous.

12.2 Persistence and degradability

Persistence is unlikely based on the information available. The substance volatilises rapidly from water and soil; in air it is degraded by photochemical oxidation.

12.3 Bioaccumulative potential

No measured bioconcentration data are available. log Kow = 4.11 indicates a potential for bioaccumulation, which should not be assumed to be negligible.

12.4 Mobility in soil

Likely to be mobile in the environment due to its volatility; evaporates from water and soil surfaces. Insoluble in water and lighter than water (density 0.659), so it spreads as a surface film. The liquid may migrate through soil to groundwater in a large spill.

12.5 Results of PBT and vPvB assessment

Not considered to meet the criteria for PBT or vPvB under REACH Annex XIII (persistence is unlikely on the available data).

12.6 Other adverse effects

Germany water hazard class WGK 2 (obviously hazardous to water). Not an ozone-depleting substance. A volatile organic compound that contributes to photochemical ozone (smog) formation; listed as a US hazardous air pollutant. Endocrine disrupting properties: none known or suspected.

13 SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

- Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste under 40 CFR 261 and must consult federal, state and local hazardous waste regulations to ensure complete and accurate classification.
- Dispose of surplus and non-recyclable material via a licensed hazardous-waste contractor, preferably by incineration in a permitted facility with flue-gas scrubbing, or by fuel blending where permitted. Do not discharge to sewers, drains or watercourses.
- Collect waste hexane in labelled, grounded, flame-arrester-fitted containers suitable for flammable solvents; keep separate from oxidising acids, peroxides and halogenated waste streams. Do not accumulate waste in the open or near ignition sources.
- Empty containers retain product residue and flammable vapour and remain hazardous. Do not cut, weld, braze, drill, grind or expose to heat, flame or sparks.
- Allow containers to drain and evaporate only in a fume hood or ventilated area; do not triple-rinse into the sewer. Collect rinsate as solvent waste before offering for recycling or reconditioning; otherwise dispose of the container as unused product. Deface or remove the label from a properly cleaned container.
- Dispose of the container in accordance with local regulations. RCRA "empty" criteria are set out in 40 CFR 261.7.

13.2 Waste codes

RCRA (40 CFR 261): discarded unused product exhibits the ignitability characteristic (flash point < 60 °C) — EPA hazardous waste number D001. Not a U-listed commercial chemical product. Spent-solvent (F-listed) codes depend on the use and on mixing with other wastes and must be determined by

the waste generator. European waste catalogue: EWC code 16 05 06* (laboratory chemicals consisting of or containing hazardous substances) or 07 01 04* (other organic solvents, washing liquids and mother liquors). Final code allocation is the responsibility of the waste producer. Basel Convention Annex I: Y42 (organic solvents excluding halogenated solvents).

14 SECTION 14: TRANSPORT INFORMATION

This product is a regulated dangerous good in all modes of transport.

14.1 Common transport classification (all modes)

UN number / UN ID number	UN 1208
UN proper shipping name	Hexanes
Transport hazard class	Class 3 — Flammable liquids
Subsidiary hazard	None
Packing group	II
Label(s) required	Class 3 "Flammable liquid" (red) on every package; for sea carriage and for ADR also the marine pollutant / environmentally hazardous substance mark (see below)
Environmental hazards	Marine pollutant under the IMDG Code (n-hexane meets the Aquatic Chronic 2 criterion and HEXANES is marked P in the Dangerous Goods List): display the marine pollutant mark and declare "MARINE POLLUTANT" on sea shipments. Environmentally hazardous substance mark under ADR; IATA mark where the net quantity per package exceeds 5 L. Under US DOT, n-hexane is not listed in 49 CFR 172.101 Appendix B; the manufacturer's SDS nevertheless identifies the product as a marine pollutant.
Special precautions for user	Transport upright, secured against movement, away from foodstuffs. Keep away from heat and ignition sources; ground and bond during loading and unloading. Segregate from oxidising agents and halogens. Ensure the driver or crew know what to do in the event of an accident or emergency.
Transport in bulk (MARPOL Annex II / IBC Code)	Not applicable to packaged goods. Bulk marine carriage of hexanes is subject to MARPOL Annex II and the IBC Code; consult the ship's Certificate of Fitness for bulk carriage.

Transport hazard label(s) required on the package:



Class 3 — Flammable liquid

Minimum 100 mm × 100 mm on each side, set on a point, with a solid inner line 5 mm inside the edge (49 CFR 172.407). Reduced-size labels are permitted only where the package is too small to bear a full-size label. Where a subsidiary hazard label is required, it is displayed next to the primary label.

14.2 US DOT — 49 CFR (road, rail and domestic transport)

Hazardous materials table entry	Hexanes — 3, UN1208, PG II
Label codes	3
Special provisions (49 CFR 172.102)	IB2, T4, TP1
Packaging — exceptions	49 CFR 173.150
Packaging — non-bulk	49 CFR 173.202
Packaging — bulk	49 CFR 173.242
Quantity limitation — passenger aircraft/rail	5 L
Quantity limitation — cargo aircraft only	60 L
Vessel stowage	Location E

Limited quantity	Authorised under 49 CFR 173.150(b): inner packagings not exceeding 1.0 L, package gross mass not exceeding 30 kg. Limited quantity marking required in place of labels.
Reportable quantity (RQ)	5,000 lb (2,270 kg) of n-hexane (CERCLA hazardous substance) — approximately 5,260 lb (2,390 kg) of product at 95 % n-hexane. Where a single package contains an RQ or more, the letters "RQ" must appear on the shipping paper and package marking.
ERG 2024 guide number	128 — Flammable liquids (non-polar / water-immiscible)
Emergency response telephone	Required on the shipping paper under 49 CFR 172.604 — see Section 1.4
Placarding	FLAMMABLE placard required for bulk packagings and for non-bulk shipments where the aggregate gross weight of Table 2 materials is 454 kg (1,001 lb) or more

14.3 IMDG Code (sea)

UN number / class / PG	UN 1208, Class 3, PG II
Proper shipping name	HEXANES
EmS (emergency schedules)	F-E (fire) and S-D (spillage)
Segregation group	None
Marine pollutant	Yes — n-hexane meets the Aquatic Chronic 2 criterion and HEXANES is marked P (marine pollutant) in the Dangerous Goods List. Display the marine pollutant mark and declare "MARINE POLLUTANT" on sea shipments (verify against the IMDG Code edition in force).
Limited quantity	1 L
Excepted quantity	E2
Stowage and segregation	Stowage category E. Segregate from oxidising agents (Class 5.1); "away from" sources of heat and ignition. Refer to the IMDG Code edition in force for the stowage category and segregation table.

14.4 IATA DGR / ICAO Technical Instructions (air)

UN number / class / PG	UN 1208, Class 3, PG II
Proper shipping name	Hexanes
Passenger and cargo aircraft	Packing Instruction 353 — maximum net quantity 5 L per package
Cargo aircraft only	Packing Instruction 364 — maximum net quantity 60 L per package
Limited quantity (passenger aircraft)	Packing Instruction Y341 — maximum net quantity 1 L per package
Excepted quantity code	E2
ERG code (ICAO)	3H
Note	The environmentally hazardous substance mark is required where the net quantity per package exceeds 5 L. Packing instruction numbers change between editions of the IATA Dangerous Goods Regulations. Verify against the edition in force on the date of shipment before completing the Shipper's Declaration.

14.5 ADR / RID / ADN (European road, rail and inland waterway)

UN number / class / PG	UN 1208, Class 3, PG II
Classification code	F1 — flammable liquids without subsidiary hazard
Labels	3 + environmentally hazardous substance mark
Tunnel restriction code	(D/E)
Hazard identification number (Kemler)	33
Transport category / limited quantity	Transport category 2; limited quantity 1 L
Packing instructions	P001, IBC02
Note	Verify against the ADR/RID edition in force before shipment.

14.6 Shipping documentation example

UN1208, Hexanes, 3, PG II, Marine pollutant (n-hexane) — followed by the number and type of packages, total quantity, packaging authorisation, emergency response telephone number and, where applicable, the "RQ" designation and limited-quantity marking.

The shipper is responsible for confirming that packaging is UN-performance tested and marked to the required standard, that all personnel involved are trained and certified under 49 CFR 172 Subpart H (and IATA/IMDG equivalents), and that the classification remains valid under the regulatory edition in force on the date of shipment.

15 SECTION 15: REGULATORY INFORMATION

15.1 United States federal regulations

Regulation	Status
TSCA (15 U.S.C. §2601 et seq.)	n-Hexane, CAS 110-54-3, and the isomers 2-methylpentane (107-83-5) and 3-methylpentane (96-14-0) are listed on the TSCA Chemical Substance Inventory with an "active" designation. No TSCA section 12(b) export notification requirement applies. Not subject to a section 5(a)(2) significant new use rule and not a TSCA 6(h) PBT substance.
OSHA Hazard Communication (29 CFR 1910.1200)	Classified as a hazardous chemical. This SDS is prepared to the HCS 2024 amendment (GHS Rev. 7), for which the compliance date for substances was 19 May 2026.
OSHA flammable liquids (29 CFR 1910.106)	Category 2 flammable liquid (flash point −22 °C / −7.6 °F); Class IB flammable liquid under the pre-2012 classification retained in NFPA 30. Storage and handling requirements apply.
OSHA PSM (29 CFR 1910.119, App. A)	Not a listed highly hazardous chemical.
CERCLA section 103 (40 CFR 302.4)	Hazardous substance. Reportable quantity 5,000 lb (2,270 kg) of n-hexane — approximately 5,260 lb (2,390 kg) of product at 95 %. Releases at or above the RQ in any 24-hour period must be reported immediately to the National Response Center, 1-800-424-8802.
EPCRA section 302 (40 CFR 355, App. A)	Not an extremely hazardous substance; section 302 emergency planning notification is not triggered by this product.
EPCRA sections 311 / 312 (40 CFR 370)	Reportable. Applicable hazard classes: flammable (liquids), skin corrosion or irritation, reproductive toxicity, specific target organ toxicity — single exposure, specific target organ toxicity — repeated exposure, aspiration hazard, and hazardous to the aquatic environment. Reporting threshold 10,000 lb on site at any one time.
EPCRA section 313 (TRI, 40 CFR 372)	Listed (n-hexane). Reporting thresholds 25,000 lb manufactured or processed and 10,000 lb otherwise used. De minimis concentration 1.0 %; the product contains n-hexane above this level.
Clean Air Act section 112 / 112(r)	Hexane is a listed hazardous air pollutant (HAP) under section 112(b). Not a Class I or Class II ozone-depleting substance.
Clean Water Act section 311 (40 CFR 116/117)	Not designated as a hazardous substance under CWA section 311; the reportable quantity applies through CERCLA (5,000 lb).
RCRA (40 CFR 261)	Discarded unused product exhibits the ignitability characteristic (D001). Not P- or U-listed.
DEA / Chemical Diversion and Trafficking Act (21 CFR 1310)	Not a List I or List II regulated chemical.
FDA / USDA	Not supplied as a food-grade, USP, FCC or NF material. Not for use in food, drug or cosmetic applications.
US Department of Homeland Security (6 CFR 27, App. A)	Not a chemical of interest.

15.2 United States state regulations

State list	Status
California Proposition 65	n-Hexane is listed under the Safe Drinking Water and Toxic Enforcement Act of 1986 as a chemical known to the State of California to cause reproductive toxicity (male reproductive / developmental). Where exposure from the product exceeds the safe harbour level, the warning "WARNING: Reproductive Harm — www.P65Warnings.ca.gov" is required.
California — other	Cal/OSHA PEL 50 ppm TWA (8 CCR 5155).
Massachusetts Right-to-Know	Listed (Substance List, 105 CMR 670).
New Jersey Right-to-Know	Listed (Hazardous Substance List; substance list). Hazard: flammable.
Pennsylvania Right-to-Know	Listed (Hazardous Substance List).

State list	Status
Rhode Island, Minnesota, Texas	Rhode Island and Minnesota: listed on the respective hazardous substance / right-to-know lists. Illinois: listed on the manufacturer's SDS. Texas: no specific listing identified; federal OSHA Hazard Communication applies.

15.3 International regulations

Jurisdiction	Status
Canada	Classified under the Hazardous Products Regulations (SOR/2015-17) consistently with Section 2. Listed on the Domestic Substances List (DSL). Subject to NPRI reporting (n-hexane, Part 1A).
European Union — CLP	Harmonised classification, Annex VI to Regulation (EC) No 1272/2008, Index No. 601-037-00-0: Flam. Liq. 2, H225; Repr. 2, H361f; Asp. Tox. 1, H304; STOT RE 2, H373; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Chronic 2, H411, with the specific concentration limit given in Section 3 (STOT RE 2 at C ≥ 5 %).
European Union — REACH	Registered substance. According to the manufacturer's SDS (March 2026), n-hexane (EC 203-777-6) is included on the Candidate List of substances of very high concern under Article 57(f) (human health — specific target organ toxicity after repeated exposure); the duty to supply an SDS and to communicate information under Article 33 applies. Not subject to authorisation (Annex XIV). Annex XVII restriction entry 75 applies to the use of the substance in certain consumer products. Supplier REACH registration number to be inserted before EU/EEA placement.
Seveso III (Directive 2012/18/EU)	Not named individually; captured under hazard category P5c (flammable liquids, Category 2 or 3 not covered by P5a/P5b): lower tier 5,000 t / upper tier 50,000 t; and under E2 (hazardous to the aquatic environment, chronic Category 2): lower tier 200 t / upper tier 500 t.
Rotterdam / Stockholm / Montreal Conventions	Not listed under the PIC procedure, not a persistent organic pollutant and not an ozone-depleting substance.
Basel Convention	Annex I — Y42 (organic solvents excluding halogenated solvents) when exported as waste.
Chemical Weapons Convention	Not a scheduled chemical.
Chemical inventories	Listed on TSCA (USA), DSL (Canada), EC Inventory / REACH (EU; EINECS 203-777-6), AICS/AIIC (Australia), IECSC (China), ENCS and ISHL (Japan), KECI (Korea; KE-18626), PICCS (Philippines), NZIoC (New Zealand), TCSI (Taiwan) and the Indian Chemical Inventory.
Mexico	Serious risk, Grade 3 (NOM-018-STPS). OEL (NOM-010-STPS): TWA 50 ppm.
Germany	Water Hazard Class WGK 2 (obviously hazardous to water).

15.4 Chemical safety assessment

A chemical safety assessment has been carried out for n-hexane under REACH by the registrants. No exposure scenarios are annexed to this SDS; users placing the substance on the EU/EEA market should obtain the extended SDS from the registrant.

16 SECTION 16: OTHER INFORMATION

16.1 Hazard rating systems

System	Rating	Notes
NFPA 704	Health 3 · Flammability 3 · Instability 0 · Special: none	Ratings as given in the manufacturer's SDS; health rating reflects the chronic nervous-system hazard
HMIS® III	Health 2* · Flammability 3 · Physical hazard 0 · PPE: X	* = chronic health hazard. PPE code to be assigned by the employer based on the task



Rating scale 0 = minimal, 4 = severe. These ratings are supplementary and are not a substitute for the GHS classification in Section 2.

16.2 Full text of hazard statements referred to in this SDS

- H225 — Highly flammable liquid and vapour.
- H304 — May be fatal if swallowed and enters airways.
- H315 — Causes skin irritation.
- H319 — Causes serious eye irritation.
- H336 — May cause drowsiness or dizziness.
- H361f — Suspected of damaging fertility.

- H372 — Causes damage to organs through prolonged or repeated exposure.
- H373 — May cause damage to organs through prolonged or repeated exposure.
- H411 — Toxic to aquatic life with long lasting effects.

16.3 Abbreviations and acronyms

Abbreviation	Meaning
ACGIH	American Conference of Governmental Industrial Hygienists
ADR / RID / ADN	European agreements concerning the international carriage of dangerous goods by road / rail / inland waterway
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging
DNEL / PNEC	Derived no-effect level / predicted no-effect concentration
EmS	Emergency schedule (IMDG Code)
EPCRA	Emergency Planning and Community Right-to-Know Act
ERG	Emergency Response Guidebook (PHMSA / Transport Canada / SCT)
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
HCS	Hazard Communication Standard, 29 CFR 1910.1200
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA DGR	International Air Transport Association Dangerous Goods Regulations
IDLH	Immediately dangerous to life or health
IMDG	International Maritime Dangerous Goods Code
LC_{50} / LD_{50} / EC_{50}	Concentration / dose / effective concentration lethal or effective to 50 % of a test population
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PBT / vPvB	Persistent, bioaccumulative and toxic / very persistent and very bioaccumulative
PEL / REL / TLV	Permissible exposure limit / recommended exposure limit / threshold limit value
PG	Packing group
RCRA	Resource Conservation and Recovery Act
RQ / TPQ / TQ	Reportable quantity / threshold planning quantity / threshold quantity
SCBA	Self-contained breathing apparatus
STOT SE / RE	Specific target organ toxicity — single exposure / repeated exposure
TSCA	Toxic Substances Control Act
TWA / STEL	Time-weighted average / short-term exposure limit
WGK	Wassergefährdungsklasse (German water hazard class)
BEI	Biological exposure index (ACGIH)
EWC	European Waste Catalogue
HAP	Hazardous air pollutant (Clean Air Act section 112)
IOELV	Indicative occupational exposure limit value (EU)
SCL	Specific concentration limit (EU CLP)

16.4 Key references

- 29 CFR 1910.1200, OSHA Hazard Communication Standard, as amended by the final rule of 19 July 2024 (89 FR 44144), aligning with GHS Revision 7.
- 49 CFR Parts 171–180, US DOT Hazardous Materials Regulations; Hazardous Materials Table, 49 CFR 172.101.
- 2024 Emergency Response Guidebook, Guide 128.
- IMDG Code and IATA Dangerous Goods Regulations, editions in force.
- 40 CFR 302.4, 40 CFR 355 Appendix A, 40 CFR 370, 40 CFR 372 and 40 CFR 261.
- Regulation (EC) No 1272/2008 Annex VI, Index No. 601-037-00-0; Regulation (EC) No 1907/2006 Annex II.
- NIOSH Pocket Guide to Chemical Hazards, n-hexane; ACGIH TLVs and BEIs, current edition.
- Manufacturer safety data sheet for n-hexane (US OSHA HCS 2024 format, revision 7, 14 March 2026) — source of the physical, toxicological and ecotoxicological test values reproduced here.
- ECHA registered substance dossier and PubChem CID 8058, n-hexane.

16.5 Revision information

Version	1.0
Date of issue	01 November 2026
Reason for revision	First issue under Highpuris LLC for n-hexane. Content prepared in the 16-section format of 29 CFR 1910.1200, Appendix D, with full US DOT 49 CFR transport detail, IMDG / IATA / ADR classification, and the complete Highpuris catalogue SKU list for this product.
Sections revised	All — first issue
Prepared by	Regulatory Affairs, Highpuris LLC

16.6 Disclaimer

The information in this Safety Data Sheet is provided in good faith and is believed to be accurate as at the date of issue. It has been compiled from data on n-hexane published by regulatory authorities, manufacturers and recognised technical sources, and relates only to the specific material identified in Section 1. It does not constitute a warranty, express or implied, of merchantability, fitness for a particular purpose or of any other kind, and Highpuris LLC accepts no liability for loss or damage arising from the handling or use of the product. The material may present hazards in combination with other substances or in processes not described here. It is the responsibility of the user to determine the suitability of this information for their own particular purpose, to comply with all applicable laws and regulations, and to ensure that the material is handled only by adequately trained personnel. Transport classifications, exposure limits and regulatory listings change. This document must be reviewed against the regulatory editions in force at the date of each shipment.

— END OF SAFETY DATA SHEET —

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