

# SAFETY DATA SHEET

*according to 1907/2006/EC, Article 3*

Revision date: 12/08/2025

**SECTION 1: Identification of the substance/mixture and of the company/undertaking.**

## 1.1 Product identifiers

<b>Product name</b>	n-Hexane
<b>Product Number</b>	PSR37828 / PSR38223 / PSR36670
<b>Brand</b>	PureSynth research chemicals
<b>CAS No.</b>	110-54-3

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

### 1.3 Details of the supplier of the safety data sheet

**Company** PureSynth Research Chemicals GmbH.  
**Address** 64683 Einhausen Marie-Curie-StraBe. 3, Germany

#### **1.4 Emergency telephone number**

## 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids, (Category 2)	H225: Highly flammable liquid and vapor.
Skin irritation, (Category 2)	H315: Causes skin irritation.
Reproductive toxicity, (Category 2)	H361f: Suspected of damaging fertility.
Specific target organ toxicity - single exposure, (Category 3), Central nervous system	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure, (Category 2), Nervous system	H373: May cause damage to organs through prolonged or repeated exposure if inhaled.
Aspiration hazard, (Category 1)	H304: May be fatal if swallowed and enters airways.
Long-term (chronic) aquatic hazard, (Category 2)	H411: Toxic to aquatic life with long lasting effects.

## 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

## Pictogram



## Signal word Danger

### Hazard statement(s)

H225 Highly flammable liquid and vapor

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation

H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled.
H411	Toxic to aquatic life with long lasting effects.

#### Precautionary statement(s)

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.
P273	Avoid release to the environment
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P331	Do NOT induce vomiting.

#### 2.3 Other hazards:

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher

### SECTION 3: Composition / information on ingredients

#### 3.1 Substances

Common names & Synonyms	Mol. formula	CAS number
n-Hexane	C <sub>6</sub> H <sub>14</sub>	110-54-3
Component	Classification	Concentration
n-Hexane	Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1; Aquatic Chronic 2; H225, H315, H361f, H336, H373, H304, H411 Concentration limits: >= 5 %: STOT RE 2, H373; >= 20 %: STOT SE 3, H336;	<= 100 %

### SECTION 4: First aid measures

#### Description of first aid measures

General advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air. Call in physician.
In case of skin contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

<b>In case of eye contact</b>	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
<b>If swallowed</b>	After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.
<b>Most important symptoms and effects, both acute and delayed</b>	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
<b>Indication of any immediate medical attention and special treatment needed</b>	No data available

## SECTION 5: Fire fighting measures

<b>Extinguishing media</b>	Carbon dioxide (CO2) Foam Dry powder
<b>suitable extinguishing media</b>	
<b>Unsuitable extinguishing media</b>	For this substance/mixture no limitations of extinguishing agents are given.
	Carbon oxides
	Combustible.
<b>Special hazards arising from the substance or mixture</b>	Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire.
	Forms explosive mixtures with air at ambient temperatures. Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
<b>Advice for fire-fighters</b>	Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.
<b>Further information</b>	

## SECTION 6: Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
<b>Environmental precautions</b>	Do not let product enter drains. Risk of explosion.
<b>Methods and materials for containment and cleaning up</b>	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.
<b>Reference to other sections</b>	For disposal see section 13.

## SECTION 7: Handling and storage

<b>Precautions for safe handling</b>	Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For
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precautions see section 2.2.

**Conditions for safe storage,  
including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

**Specific end use(s)**

Storage class (TRGS 510): 3: Flammable liquids  
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

**SECTION 8: Exposure controls / Personal protection**

**Control parameters**

Ingredients with workplace control parameters

**Appropriate engineering controls**

**Personal protective equipment:**

**Eye / face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).  
Safety glasses

**Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves

**Body Protection**

Flame retardant antistatic protective clothing.

**Respiratory protection**

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

**Control of environmental  
exposure**

Do not let product enter drains. Risk of explosion.

## SECTION 9: Physical and chemical properties

<b>Appearance</b>	Form: Liquid
<b>Odour</b>	Colour: Colourless hydrocarbon-like
<b>pH - Value</b>	7.0
<b>Density</b>	0.659 g/mL at 25 °C
<b>Boiling Point</b>	69 °C
<b>Melting Point</b>	-95 °C
<b>Solubility in water</b>	0.01 g/l at 25 °C - slightly soluble
<b>Flash point</b>	-22 °C - closed cup
<b>Vapour pressure</b>	175.98 hPa at 20,0 °C
<b>Auto -ignition temperature</b>	225 °C at 1.013 hPa
<b>Vapour density</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Partition coefficient: n- octanol / water</b>	log Pow: ca.4 at 20 °C - (Lit.), Potential bioaccumulation
<b>Viscosity</b>	Viscosity, kinematic: No data available Viscosity, dynamic: 0.3 mPa.s at 25 °C
<b>Explosive properties</b>	Not classified as explosive.
<b>Upper / lower flammability or explosive limits</b>	Upper explosion limit: 8.1 % (V) Lower explosion limit: 1.0 % (V)
<b>Oxidizing properties</b>	None

**Other safety information:** No data available

## SECTION 10: Stability and reactivity

<b>Reactivity</b>	Vapors may form explosive mixture with air.
<b>Chemical stability</b>	The product is chemically stable under standard ambient conditions (room temperature). Risk of explosion with: Violent reactions possible with: Strong oxidizing agents nitrogen oxides halogens rubber various plastics
<b>Possibility of hazardous reactions</b>	Risk of ignition or formation of inflammable gases or vapours with: Peroxides (sodium salt)
<b>Condition to avoid</b>	Warming
<b>Incompatible materials</b>	No data available
<b>Hazardous decomposition products</b>	In the event of fire: see section 5

## SECTION 11: Toxicological information

<b>Acute toxicity</b>	LD50 Oral - Rat - male and female - 16.000 mg/kg LC50 Inhalation - Rat - 4 h - 172 mg/l - vapor LD50 Dermal - Rabbit - male - > 2.000 mg/kg
<b>Skin corrosion/irritation</b>	Skin - Rabbit Result: Skin irritation - 24 h
<b>Serious eye damage/eye irritation</b>	Eyes - Rabbit Result: No eye irritation - 72 h
<b>Respiratory or skin sensitization</b>	Local lymph node assay (LLNA) - Mouse Result: negative Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test Metabolic activation: with and without metabolic activation Result: negative
<b>Germ cell mutagenicity</b>	Test Type: dominant lethal test Species: Mouse Application Route: inhalation (vapor) Result: negative Test Type: Chromosome aberration test Species: Rat Cell type: Bone marrow Application Route: Gavage Result: negative No data available
<b>Carcinogenicity</b>	Suspected of damaging fertility.
<b>Reproductive toxicity</b>	May cause drowsiness or dizziness. - Central nervous system
<b>Specific target organ toxicity - single exposure</b>	Inhalation - May cause damage to organs through prolonged or repeated exposure. - Nervous system
<b>Specific target organ toxicity - repeated exposure</b>	Aspiration may cause pulmonary edema and pneumonitis.
<b>Aspiration hazard</b>	
<b>Additional Information</b>	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
<b>Endocrine disrupting properties</b>	

## SECTION 12: Ecological information

<b>Toxicity</b>	
<b>Toxicity to fish</b>	LC50 - Pimephales promelas (fathead minnow) – 2.5 mg/l - 96 h
<b>Toxicity to daphnia and other aquatic invertebrates</b>	EC50 - Daphnia magna (Water flea) – 2.1 mg/l - 48 h
<b>Persistence and degradability</b>	aerobic - Exposure time 28 d
<b>Biodegradability</b>	Result: 98 % - Readily biodegradable.

<b>Bio accumulative potential</b>	No data available
<b>Mobility in soil</b>	No data available
<b>Results of PBT and vPvB assessment</b>	This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher
<b>Endocrine disrupting properties</b>	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
<b>Other adverse effects</b>	No data available

### SECTION 13: Disposal considerations

<b>Waste treatment methods Products</b>	Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleansed containers like the product itself.
<b>Contaminated packaging</b>	Dispose of as unused product.

### SECTION 14: Transport information

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
<b>ADR / RID</b>	1208	HEXANES	3	II	Yes
<b>IMDG</b>	1208	HEXANES	3	II	Yes
<b>IATA</b>	1208	Hexanes	3	II	Yes

### SECTION 15: Regulatory information

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### Chemical safety assessment

For this product a chemical safety assessment was not carried out.

### SECTION 16: Other information

The information in this SDS is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The user must be determined suitability of this information for his application.