

Version: v1
Revision Date: 2023-07-18
Print Date: 2023-07-25

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name : n-Hexane
Product Number : H140380
Brand : aladdin
CAS-No. : 110-54-3

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co., Ltd
Address : 36 Xinjinqiao Road, Shanghai
Telephone : 400-620-6333
Fax : no data available

1.4 Emergency telephone number

Emergency Phone : 0532-83889090

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225

Skin irritation (Category 2), H315

Reproductive toxicity (Category 2), H361f

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Nervous system, H373

Aspiration hazard (Category 1), H304

Long-term (chronic) aquatic hazard (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 GHS Label elements, including precautionary statements

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Pictogram**Signal word****Hazard statement(s)**

Danger

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

H373

Causes damage to organs through prolonged or repeated exposure

H411

Toxic to aquatic life with long lasting effects

Precautionary statement(s)

P210

Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.

P233

Keep container tightly closed.

P240

Ground/bond container and receiving equipment.

P241

Use explosion-proof [electrical/ventilating/lighting/.../] equipment.

P242

Use only non-sparking tools.

P243

Take precautionary measures against static discharge.

P260

Do not breathe dust/fume/gas/mist/vapors/spray.

P264

Wash hands [and ...] 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/face protection.

P314

Get medical advice/attention if you feel unwell.

P331

Do NOT induce vomiting.

P391

Collect spillage.

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 [or shower].

P332+P313

IF SKIN irritation occurs: Get medical advice/attention.

P370+P378

In case of fire: Use ... to extinguish.

P405

Store locked up.

P403+P233

Store in a well-ventilated place. Keep container tightly closed.

P403+P235

Store in a well-ventilated place. Keep cool.

P501

Dispose of contents/container to an approved waste disposal plant.

P304+P340+P312

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor. if you feel unwell.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS**SECTION 3: Composition/information on ingredients****3.1 Substances**

| | |
|------------------|----------------------------------|
| Synonyms | : Hexane Hexyl hydride dipropyl |
| Formula | : C ₆ H ₁₄ |
| Molecular weight | : 86.18 |

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CAS No. : 110-54-3
EC-NO. : 203-777-6

Component
n-Hexane

Classification

Concentration

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;
anhydrous,98%

SECTION 4: First aid measures

4.1 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.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Carbon oxides Combustible. 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.

5.3 Advice for firefighters

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Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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 precautions see section 2.2.

7.2 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.

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Hazard composition and occupational exposure limits

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| Component | CAS No. | Value | Control parameters | Basis |
|-----------|----------|---------|--------------------|---|
| n-Hexane | 110-54-3 | PC-TWA | 100 mg/m3 | Occupational exposure limits for workplace hazards - chemical hazards |
| | | Note | Skin | |
| | | PC-STEL | 180 mg/m3 | Occupational exposure limits for workplace hazards - chemical hazards |
| | | Skin | | |

Biological limits

| Component | CAS No. | parameters | Value | Biological specimens | Basis |
|-----------|----------|------------------|----------|----------------------|--|
| | 110-54-3 | 2,5-hexanedione | 35µmol/l | urine | Occupational exposure biological limit |
| | Note | After work shift | | | |
| | | 2,5-hexanedione | 4 mg/l | urine | Occupational exposure biological limit |
| | | After work shift | | | |

8.2 Exposure controls

Appropriate engineering controls

Replace contaminated clothing immediately. Use skin protective lotion. Wash hands and wash your face after using this substance.

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

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

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

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|--|
| a) Appearance | form: liquid color: Colorless |
| b) Odour | no data available |
| c) Odour Threshold | no data available |
| d) pH | no data available |
| e) Melting point/freezing point | -95°C(lit.) |
| f) Initial boiling point and boiling range | 69°C |
| g) Flash point | (closed cup) -17.2°C |
| h) Evaporation rate | no data available |
| i) Flammability (solid, gas) | no data available |
| j) Upper/lower flammability or explosive limits | no data available |
| k) Vapour pressure | no data available |
| l) Vapour density | no data available |
| m) Relative density | 0.66 |
| n) Water solubility | Soluble in ethanol, ether, acetone and chloroform, insoluble in water. |
| o) Partition coefficient: n-octanol/water | no data available |
| p) Auto-ignition temperature | no data available |
| q) Decomposition temperature | no data available |
| r) Viscosity | no data available |
| s) Explosive properties N | no data available |
| t) Oxidizing properties N | no data available |

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

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Risk of explosion with: Strong oxidizing agents nitrogen oxides Violent reactions possible with: Halogens Risk of ignition or formation of inflammable gases or vapours with: Peroxides (sodium salt)

10.4 Conditions to avoid

Warming.

10.5 Incompatible materials

Strong oxidizing agents, Rubber, various plastics

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 16.000 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rat - 4 h - 172 mg/l
Remarks: (RTECS) LD50 Dermal - Rabbit - male - > 2.000 mg/kg (OECD Test Guideline 402) Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit Result: Skin irritation - 24 h (OECD Test Guideline 404) Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Serious eye damage/eye irritation

Eyes - Rabbit Result: No eye irritation - 72 h (OECD Test Guideline 405)

Respiratory or skin sensitisation

Local lymph node assay (LLNA) - Mouse Result: negative (OECD Test Guideline 429)

Germ cell mutagenicity

No data available Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: dominant lethal test Species: Mouse Application Route: inhalation (vapor) Result: negative Remarks: (ECHA)

Carcinogenicity

no data available

Reproductive toxicity

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Suspected human reproductive toxicant Suspected of damaging fertility. Suspected of damaging fertility.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

Inhalation - May cause damage to organs through prolonged or repeated exposure. - Nervous system Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard

May be fatal if swallowed and enters airways. Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

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Repeated dose toxicity - Rat - male - Oral - NOAEL (No observed adverse effect level) - 6,6 mg/kg Remarks: (ECHA) Drowsiness, irritant effects, somnolence narcosis, Nausea, Tiredness, CNS disorders, paralysis symptoms Risk of corneal clouding. It generally applies for aliphatic hydrocarbons with 6 - 18 carbon atoms that they may cause pneumonia, in some cases also pulmonary oedema, upon direct inhalation, i.e. in conditions that can occur only in very special circumstances (nebulizations, spraying, inhalation of aerosols and similar). After absorption of very large quantities: narcosis. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 2,5 mg/l - 96 h Remarks: (ECOTOX Database) Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 2,1 mg/l - 48 h Remarks: (Lit.)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d Result: 98 % - Readily biodegradable. (OECD Test Guideline 301F) Remarks: (in analogy to similar products)

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Dispose of the remaining and non recyclable solution to a licensed company.

Contaminated packaging

no data available

SECTION 14: Transport information

DOT (US)

UN number: 1208

Proper shipping name: HEXANES

Environmental Hazards: yes

Packing group: II

Class: 3

Reportable Quantity(RQ): no data available Poison Inhalation Hazard: no data

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IMDG

UN number: 1208

Packing group: II

EMS-No: no data available

Proper shipping name: HEXANES

IATA

UN number: 1208

Packing group: II

Class: 3

Proper shipping name: HEXANES

SECTION 15: Regulatory information

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

SECTION 16: Other information**Further information**

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