

14078 Meridian Parkway, Riverside, CA. 92518

## SAFETY DATA SHEET

Version: v1

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## 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 Company

Company : ALADDIN SCIENTIFIC CORPORATION

Address : 14078 Meridian Parkway,

Riverside, CA. 92518

Telephone : +1 (833) 552-7181 Fax : no data available

1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300

CHEMTREC®, Outside the USA :

### **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



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## 2.2 GHS Label elements, including precautionary statements

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

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



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## SECTION 3: Composition/information on ingredients

## 3.1 Substances

Synonyms : Hexane Hexyl hydride dipropyl

Formula : C6H14

Molecular weight : 86.18

CAS No. : 110-54-3

EC-NO. : 203-777-6

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;	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



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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

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.



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## 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

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**

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

## 8.2 Exposure controls



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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.

**Body Protection** 

Flame retardant antistatic protective clothing.

Respiratory protection

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

compounds

The entrepeneur 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

k) Vapour pressure

l) Vapour density

m) Relative density

n) Water solubility

o) Partition coefficient: n-octanol/water no data available

p) Auto-ignition temperature

q) Decomposition temperature

no data available

no data available

no data available



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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

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



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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.

**Additional Information** 

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



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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

Dispose of as unused product.

## **SECTION 14: Transport information**

DOT (US)

UN number: 1208 Packing group: II Class: 3

Proper shipping name: HEXANES Reportable Quantity(RQ): no data Poison Inhalation Hazard: no data

available available

Environmental Hazards: yes

**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**

Regulatory Affairs

Prepared By ALADDIN SCIENTIFIC CORPORATION

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