

**PRODUCT NAME:** n-HEXANE 95%

## SAFETY DATA SHEET

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

### 1. IDENTIFICATION

**Product name:** n-HEXANE 95%  
**Recommended use:** Chemical for analysis and production.  
**Manufacturer/Supplier:** RCI LABSCAN LIMITED.  
24 Rama 1 Road, Pathumwan, Bangkok 10330 Thailand  
**Telephone No:** (662) 613-7911-4  
**Fax No:** (662) 613-7915  
**Emergency Telephone No:** (662) 613-7911-4

### 2. HAZARDS IDENTIFICATION



**DANGER :** Highly flammable liquid and vapor. May be fatal if swallowed and enters airways.  
Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure.  
Causes skin irritation. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.

### 3. COMPOSITION/INFORMATION

**Chemical name:** n-HEXANE  
**Synonym:** Hexyl hydride, n-Hexyl hydride, hexane, n-Carproylhydride

CAS-No	EC-No	EC-Index-No	Formula	Molecular Weight	Weight %
110-54-3	203-777-6	601-037-00-0	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub>	86.18 g/mol	>95

**PRODUCT NAME:** n-HEXANE 95%

#### 4. FIRST AID MEASURES

- General advice:** Show this safety data sheet to the doctor in attendance.
- Inhalation:** Move to fresh air in case of accidental inhalation of vapors. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth to mouth or mouth to nose. Use suitable instruments/apparatus.
- Skin contact:** Remove contaminated clothing and wash affected skin with soap and water. If signs of poisoning appear, treat as for inhalation. Wash contaminated clothing before reuse. Contaminated combustible material, e.g. clothing ignites more readily and burns fiercely.
- Eye contact:** If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. Obtain medical attention.
- Ingestion:** Rinse mouth. Do not induce vomiting. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth to mouth or mouth to nose. Use suitable instruments/apparatus. Obtain medical attention. Never give anything by mouth to an unconscious person.
- Administer:** After swallowing: avoid vomiting. Risk of aspiration. Keep airways free. Subsequently administer: Activate charcoal 20-40 g in 10% slurry. No milk, no alcohol. Obtain medical attention.

#### 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media:**  
Extinguish with carbon dioxide, dry chemical or foam. In the event of fire, cool tanks with water spray.
- Extinguishing media which must not be used for safety reasons:**  
Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards:**  
Vapors may form explosive mixture with air. Flash back possible over considerable distance.
- Special protective equipment for fire fighters:**  
Wear self-contained breathing apparatus and protective suit.
- Specific methods:**  
Standard procedure for chemical fires.
- Other information:**  
Take measures to prevent electrostatic charging. Prevent fire-fighting water from entering surface water or groundwater.

**PRODUCT NAME:** n-HEXANE 95%

#### 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Evacuate personnel to safe areas. Do not breathe vapors or spray mist. Remove all sources of ignition. Wear a positive-pressure supplied-air respirator, flame retardant antistatic protective clothing. Shut off leaks if without risk. Keep people away from and upwind of spill/leak.
- Environmental precautions:** Contain or absorb leaking liquid with sand or earth, consults an expert. Prevent liquid entering sewers, basements and workpits. If substance has entered a water course or sewer or contaminated soil or vegetation, advise police.
- Methods for cleaning up:** Spillage: May react with combustible substances creating fire or explosion hazard and formation of toxic fumes. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Soak up with inert absorbent material (e.g. sand, silica gel). Prevent liquid entering sewers, basements and workpits; vapor may create explosive atmosphere. Transfer to covered steel drums. Dispose of promptly.

#### 7. HANDLING AND STORAGE

- Handling:** Keep container tightly closed. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only in area provided with appropriate exhaust ventilation. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing. Do not empty into drains.
- Storage:** Keep tightly closed at room temperature in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep out of direct sunlight and away from incompatible material. Store in original container. Electrical equipment should be protected to the appropriate standard.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**National occupational exposure limits:** OEL72 mg/m<sup>3</sup> (20 ppm), TWA 90 mg/m<sup>3</sup> (25ppm)

**Engineering measures to reduce exposure:**

The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Ventilation hoods and fans required when working with organic solvents or in hot melt applications.

**Personal protection equipment:**

- **Respiratory protection:** In case of insufficient ventilation, wear suitable respiratory equipment. Required when vapor/aerosols are generated filter A (acc. To DIN 3181) for vapors of organic compounds.
- **Hand protection:** Handle with gloves. In case full and splash contact wear gloves from nitrile rubber material. The select protective gloves have to satisfy the specifications of EU Directive 89/686 EEC and standard EN 374 derived from it.
- **Eye protection:** Goggles giving complete protection to eyes.
- **Skin and body protections:** Chemical resistant apron / flame retardant antistatic

F-QA-01 / RV.00 / Eff. date 01-04-11

**PRODUCT NAME:** n-HEXANE 95%

protective clothing, heavy duty work shoes.

**Hygiene measures:**

Ventilation hoods and fans required when working with organic solvents or in hot melt applications.  
Keep working clothes separately. Keep away from food, drink and animal feeding stuffs.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Form:</b>		Liquid	
<b>Color:</b>		Colorless	
<b>Odor:</b>		Benzene like	
<b>pH Value:</b>		Not Available	
<b>Boiling point/range:</b>		69	°C
<b>Melting point/range:</b>		-94.3	°C
<b>Flash point:</b>		-22	°C (closed cup)
<b>Ignition temperature:</b>		240	°C
<b>Explosion limits:</b>			
	- lower	1	vol. %
	- upper	8.1	vol. %
<b>Vapor Pressure:</b>	(20°C)	160	hPa
<b>Density:</b>	(20°C)	0.660	g/ml
<b>Relative Vapor Density:</b>		2.79	
<b>Solubility in Water:</b>	(20°C)	0.0095	g/l
<b>Partition coefficient (n-octanol/water):</b>		4.11 log P <sub>ow</sub>	
<b>Viscosity:</b>	(20°C)	0.326	mPa.s

**10. STABILITY AND REACTIVITY**

<b>Reaction Stability:</b>	Highly inflammable, unsuitable working materials: various plastic, rubber. Explosible with air in a vaporous/gaseous state.
<b>Stability:</b>	Stable under recommended storage conditions.
<b>Conditions to avoid:</b>	Heat, Flames and sparks (Risk of explosion).
<b>Materials to avoid:</b>	Risk of explosion with strong Oxidizing agents.
<b>Hazardous decomposition product:</b>	Carbon monoxides, Carbon dioxides, (Hazardous decomposition products from under fire condition).

**11. TOXICOLOGICAL INFORMATION**

<b>Acute toxicity:</b>	LC <sub>50</sub> (inhalation, rat): 171.6 mg/kg LD <sub>50</sub> (dermal, rabbit): >2000 mg/kg LD <sub>50</sub> (oral, rat): 25000 mg/kg
<b>Sensitization:</b>	After inhalation: Irritation symptoms in the respiratory tract, drowsiness. After skin contact: Irritations. Danger of skin absorption. After eyes contact: Slight irritations. Risk of corneal clouding. After swallowing: nausea. After accidental swallowing the substance may pose a risk of aspiration. Passage into the lung (vomiting) can result in a condition resembling pneumonia

**PRODUCT NAME: n-HEXANE 95%**

**Chronic toxicity:** (chemical pneumonitis). After absorption: drowsiness, tiredness, narcosis.  
CNS disorders, paralysis symptoms. Damage of lungs.  
Animal experiments suggest that the substance may lead to an impairment of reproductive performance also man. Bacterial mutagenicity Salmonella typhimurium is negative.

**Further toxicological information:** The product should be handled with the care usual when dealing with chemicals.

**12. ECOLOGICAL INFORMATION**

**Biologic degradation:** Not Available.

**Behavior in environmental compartments:** Distribution; log P(oct): 4.11 (experimental). An appreciable Bioaccumulation potencial is to be expected (log P o/w >3)

**Ecotoxicity:** Biological effects: toxic for aquatic organisms. May cause long term adverse effects in the aquatic environment.  
Fish Toxicity; LC<sub>50</sub>: 2.5 – 117 mg/l/96h,  
Daphnia Toxicity; Daphnia magna EC<sub>50</sub>: 2.1 mg/l /48h

**Further ecologic data:** Do not allow to enter waters, waste water or soil.

**13. DISPOSAL CONSIDERATIONS**

**Products:** There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding law and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste or burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

**Packaging:** Disposal in compliance with official regulations. Handle contaminated packaging as hazardous waste in the same way of the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

**PRODUCT NAME:** n-HEXANE 95%

**14. TRANSPORT INFORMATION**

**Transport over land ADR/RID**

UN-No: 1208                      Class: 3                      Packing group: II  
Proper shipping name:      HEXANES

**River transport AND/ADNR**  
(Not examined)

**Sea transport IMDG**

UN-No: 1208                      Class: 3                      Packing group: II  
Ems:              F-E      S-D  
Proper shipping name:      HEXANES  
Marine pollutant:              No

**Air transport ICAO-TI, PAX and IATA-DGR**

UN-No: 1208                      Class: 3                      Packing group: II  
Proper shipping name:      HEXANES

**15. REGULATORY INFORMATION**

**Contains:** n-HEXANE 95%

**GHS - Labelling:**

- **Hazard statement(s):**
  - H225: Highly flammable liquid and vapor.
  - H304: May be fatal if swallowed and enters airways.
  - H361f: Suspected of damaging fertility.
  - H373: May cause damage to organs through prolonged or repeated exposure.
  - H315: Causes skin irritation.
  - H336: May cause drowsiness or dizziness.
  - H411: Toxic to aquatic life with long lasting effects.
- **Precautionary statement(s):**
  - P201: Obtain special instructions before use.
  - P202: Do not handle until all safety precautions have been read and understood.
  - P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - 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 vapors.
  - P264: Wash hand 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.
  - P281: Use personal protective equipment as required.

**PRODUCT NAME: n-HEXANE 95%**

P362: Take off contaminated clothing and wash before reuse.  
P312: Call a POISON CENTER or doctor/physician if you feel unwell.  
P314: Get medical advice/attention if you feel unwell.  
P391: Collect spillage  
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.  
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P331: Do NOT induce vomiting.  
P308 + P313: IF exposed or concerned: Get medical advice/attention.  
P332 + P313: If skin irritation occurs: Get medical advice/attention.  
P370 + P378: In case of fire: Use carbon dioxide, dry chemical or foam for extinction.  
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.

**Labelling according to EC Directives:**

<b>R - phrase(s):</b>	R11	- Highly flammable.
	R38	- Irritating to skin.
	R48/20	- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
	R51/53	- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	R62	- Possible risk of impaired fertility.
	R65	- Harmful: may cause lung damage if swallowed.
	R67	- Vapor may cause drowsiness and dizziness.
<b>S - phrase(s):</b>	S9	- Keep container in a well-ventilated place
	S16	- Keep away from sources of ignition. - No smoking.
	S29	- Do not empty into drains.
	S33	- Take precautionary measures against static discharges.
	S36/37	- Wear suitable protective clothing and gloves.
	S61	- Avoid release to the environment. Refer to special instructions/ safety data sheet.
	S62	- If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

**PRODUCT NAME:** n-HEXANE 95%

**16. OTHER INFORMATION**

<b>Recommended restrictions:</b>	Take notice of labels and safety data sheets before working.
<b>Reason for alteration:</b>	Changed, updated and corrected in this safety data sheet following Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
<b>Reference:</b>	Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Labelling according to EC Directives 67/548 EEC and Regulation (EC) No 1272/2008. Transportation information according to Recommendations on the Transport of Dangerous Goods, Model Regulations. Twelfth revised edition. United Nations.
<b>Further information:</b>	Contact RCI Labscan Limited.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.