

### MATERIAL SAFETY DATA SHEET (MSDS)

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

##### 1.1. Product identifier

|              |                 |
|--------------|-----------------|
| Product form | : Substance     |
|              | :               |
| EC Index-No. | : 601-037-00-0  |
| EC-No.       | : 203-777-6     |
| CAS-No.      | : 110-54-3      |
| Product code | : 00162         |
| Formula      | : C6H14         |
| Synonyms     | : Hexyl Hydride |

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

###### 1.2.1. Relevant identified uses

|                                  |   |
|----------------------------------|---|
| Industrial/Professional use spec | : Industrial<br>For professional use only |
|----------------------------------|---|

###### 1.2.2. Uses advised against

No additional information available

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

Labogens Fine Chem Industries  
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,  
Ludhiana Pb. (141007)  
+91 9316777775, +91 7707855700  
[sales@labogens.com](mailto:sales@labogens.com) - [www.Labogens.com](http://www.Labogens.com)

##### 1.4. Emergency telephone number

Emergency number : +91 7707855700 (9:00am - 6:00 pm)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification according to Regulation (EC) No. 1272/2008 [CLP]

|   |       |
|---|-------|
| Flammable liquids,<br>Category 2  | H225  |
| Skin corrosion/irritation,<br>Category 2  | H315  |
| Reproductive toxicity,<br>Category 2  | H361f |
| Specific target organ<br>toxicity — Single<br>exposure, Category 3,<br>Narcosis | H336  |
| Specific target organ<br>toxicity — Repeated<br>exposure, Category 2            | H373  |
| Aspiration hazard,  | H304  |

# n-HEXANE 99% AR

## Safety Data Sheet

Category 1

Hazardous to the aquatic environment — Chronic Hazard, Category 2

Full text of H statements : see section 16

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Repr.Cat.3; R62

F; R11

Xn; R65

Xn; R48/20

Xi; R38

N; R51/53

R67

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02



GHS07



GHS08



GHS09

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapour.  
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 (lung/respiratory system) through prolonged or repeated exposure (if inhaled).  
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 - Avoid release to the environment.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor  
P331 - Do NOT induce vomiting.

## 2.3. Other hazards

No additional information available

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

|              |                   |
|--------------|-------------------|
| Name         | : n-HEXANE 99% AR |
| CAS-No.      | : 110-54-3        |
| EC-No.       | : 203-777-6       |
| EC Index-No. | : 601-037-00-0    |

Full text of R- and H-statements: see section 16

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

|                                       |  |
|---------------------------------------|--|
| First-aid measures general            | : IF exposed or concerned: Get medical advice/attention.   |
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.   |
| First-aid measures after skin contact | : Wash with plenty of water/.... Wash contaminated clothing before reuse. Get medical advice/attention.  |
| First-aid measures after eye contact  | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention. |
| First-aid measures after ingestion    | : Immediately call a POISON CENTER/doctor.   |

#### 4.2. Most important symptoms and effects, both acute and delayed

|                                     |  |
|-------------------------------------|--|
| Symptoms/effects                    | : Suspected of damaging fertility. May cause damage to organs.         |
| Symptoms/effects after inhalation   | : May cause respiratory irritation. May cause drowsiness or dizziness. |
| Symptoms/effects after skin contact | : Causes skin irritation.  |
| Symptoms/effects after ingestion    | : May be fatal if swallowed and enters airways.                        |

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

|                                |  |
|--------------------------------|--|
| Suitable extinguishing media   | : Water spray. Foam. Dry powder. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream.               |

#### 5.2. Special hazards arising from the substance or mixture

|                  |  |
|------------------|--|
| Fire hazard      | : Highly flammable liquid and vapour.              |
| Explosion hazard | : May form flammable/explosive vapour-air mixture. |

#### 5.3. Advice for firefighters

|                                |  |
|--------------------------------|--|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. |
|--------------------------------|--|

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

|                  |   |
|------------------|---|
| General measures | : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. |
|------------------|---|

##### 6.1.1. For non-emergency personnel

|                      |                                   |
|----------------------|-----------------------------------|
| Emergency procedures | : Evacuate unnecessary personnel. |
|----------------------|-----------------------------------|

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### 6.1.2. For emergency responders

|                      |  |
|----------------------|--|
| Protective equipment | : Avoid breathing dust/fume/gas/mist/vapours/spray. Use personal protective equipment as required. |
| Emergency procedures | : Ventilate area.  |

### 6.2. Environmental precautions

Avoid release to the environment. Toxic to aquatic life with long lasting effects.

### 6.3. Methods and material for containment and cleaning up

|                         |  |
|-------------------------|--|
| Methods for cleaning up | : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. |
|-------------------------|--|

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

|                                   |   |
|-----------------------------------|---|
| Additional hazards when processed | : Handle empty containers with care because residual vapours are flammable.   |
| Precautions for safe handling     | : No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing fume, vapours. Use only outdoors or in a well-ventilated area. |
| Hygiene measures                  | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.   |

### 7.2. Conditions for safe storage, including any incompatibilities

|                        |   |
|------------------------|---|
| Technical measures     | : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. |
| Storage conditions     | : Keep in fireproof place. Keep container tightly closed.   |
| Incompatible materials | : Heat sources.   |

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

|                          |                                      |
|--------------------------|--------------------------------------|
| Hand protection          | : protective gloves                  |
| Eye protection           | : Chemical goggles or safety glasses |
| Skin and body protection | : Wear suitable protective clothing  |
| Respiratory protection   | : Approved supplied air respirator   |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                |               |
|----------------|---------------|
| Physical state | : Liquid      |
| Molecular mass | : 86.18 g/mol |

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|  |  |
|--|--|
| Colour                                     | : Clear Colorless.                                 |
| Odour                                      | : gasoline-like.                                   |
| Odour threshold                            | : No data available                                |
| pH   | : No data available                                |
| Relative evaporation rate (butylacetate=1) | : No data available                                |
| Melting point                              | : -95 °C   |
| Freezing point                             | : No data available                                |
| Boiling point                              | : 68 - 70 °C                                       |
| Flash point                                | : -23 °C   |
| Auto-ignition temperature                  | : 225 °C   |
| Decomposition temperature                  | : No data available                                |
| Flammability (solid, gas)                  | : Flammable<br>Highly flammable liquid and vapour. |
| Vapour pressure                            | : 151 mm Hg at 25° C                               |
| Relative vapour density at 20 °C           | : 2.97   |
| Relative density                           | : No data available                                |
| Density                                    | : 0.678 g/cm <sup>3</sup>                          |
| Solubility                                 | : Water: Insoluble in water                        |
| Log Pow                                    | : No data available                                |
| Viscosity, kinematic                       | : No data available                                |
| Viscosity, dynamic                         | : 0.31 mPa·s 20° C                                 |
| Explosive properties                       | : No data available                                |
| Oxidising properties                       | : No data available                                |
| Explosive limits                           | : 1.1 - 7.5 vol %                                  |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Open flame. Direct sunlight. Heat. Sparks.

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### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility.

STOT-single exposure : May cause drowsiness or dizziness.

STOT-repeated exposure : May cause damage to organs (lung/respiratory system) through prolonged or repeated exposure (if inhaled).

Aspiration hazard : May be fatal if swallowed and enters airways.

#### n-HEXANE 99% AR (110-54-3)

|                      |                          |
|----------------------|--------------------------|
| Viscosity, kinematic | 0.457 mm <sup>2</sup> /s |
|----------------------|--------------------------|

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water : Toxic to aquatic life with long lasting effects.

### 12.2. Persistence and degradability

#### n-HEXANE 99% AR (110-54-3)

|                               |   |
|-------------------------------|---|
| Persistence and degradability | May cause long-term adverse effects in the environment. |
|-------------------------------|---|

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

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### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information : Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials : Hazardous waste due to toxicity.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR) : 1208  
UN-No. (IMDG) : 1208  
UN-No. (IATA) : 1208  
UN-No. (ADN) : 1208  
UN-No. (RID) : 1208

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : HEXANES  
Proper Shipping Name (IMDG) : HEXANES  
Proper Shipping Name (IATA) : Hexanes  
Proper Shipping Name (ADN) : HEXANES  
Proper Shipping Name (RID) : HEXANES  
Transport document description (ADR) : UN 1208 HEXANES, 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS  
Transport document description (IMDG) : UN 1208 HEXANES, 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS  
Transport document description (IATA) : UN 1208 Hexanes, 3, II, ENVIRONMENTALLY HAZARDOUS  
Transport document description (ADN) : UN 1208 HEXANES, 3, II, ENVIRONMENTALLY HAZARDOUS  
Transport document description (RID) : UN 1208 HEXANES, 3, II, ENVIRONMENTALLY HAZARDOUS

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 3  
Danger labels (ADR) : 3



#### IMDG

Transport hazard class(es) (IMDG) : 3  
Danger labels (IMDG) : 3

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### IATA

Transport hazard class(es) (IATA) : 3

Hazard labels (IATA) : 3



### ADN

Transport hazard class(es) (ADN) : 3

Danger labels (ADN) : 3



### RID

Transport hazard class(es) (RID) : 3

Danger labels (RID) : 3



## 14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

## 14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

## 14.6. Special precautions for user

### - Overland transport

Classification code (ADR) : F1

Limited quantities (ADR) : 11

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02, R001

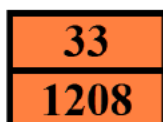
Mixed packing provisions (ADR) : MP19



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|   |           |
|---|-----------|
| Portable tank and bulk container instructions (ADR)       | : T4      |
| Portable tank and bulk container special provisions (ADR) | : TP1     |
| Tank code (ADR)   | : LGBF    |
| Vehicle for tank carriage                                 | : FL      |
| Transport category (ADR)                                  | : 2       |
| Special provisions for carriage - Operation (ADR)         | : S2, S20 |
| Hazard identification number (Kemler No.)                 | : 33      |
| Orange plates   | :         |



|                               |       |
|-------------------------------|-------|
| Tunnel restriction code (ADR) | : D/E |
| EAC code                      | : 3YE |

### - Transport by sea

|                                    |   |
|------------------------------------|---|
| Limited quantities (IMDG)          | : 1 L   |
| Excepted quantities (IMDG)         | : E2  |
| Packing instructions (IMDG)        | : P001  |
| IBC packing instructions (IMDG)    | : IBC02   |
| Tank instructions (IMDG)           | : T4  |
| Tank special provisions (IMDG)     | : TP1   |
| EmS-No. (Fire)                     | : F-E   |
| EmS-No. (Spillage)                 | : S-D   |
| Stowage category (IMDG)            | : E   |
| Properties and observations (IMDG) | : Colourless, volatile liquids with a faint odour. Explosive limits: 1.1% to 7.5% n-HEXANE: flashpoint -22°C c.c. boiling point 69°C. NEOHEXANE: flashpoint -48°C c.c. boiling point 50°C. Immiscible with water. Slightly irritating to skin, eyes and mucous membranes. |
| MFAG-No                            | : 128   |

### - Air transport

|  |        |
|--|--------|
| PCA Excepted quantities (IATA)               | : E2   |
| PCA Limited quantities (IATA)                | : Y341 |
| PCA limited quantity max net quantity (IATA) | : 1L   |
| PCA packing instructions (IATA)              | : 353  |
| PCA max net quantity (IATA)                  | : 5L   |
| CAO packing instructions (IATA)              | : 364  |
| CAO max net quantity (IATA)                  | : 60L  |
| ERG code (IATA)                              | : 3H   |

### - Inland waterway transport

|                                   |             |
|-----------------------------------|-------------|
| Classification code (ADN)         | : F1        |
| Limited quantities (ADN)          | : 1 L       |
| Excepted quantities (ADN)         | : E2        |
| Carriage permitted (ADN)          | : T         |
| Equipment required (ADN)          | : PP, EX, A |
| Ventilation (ADN)                 | : VE01      |
| Number of blue cones/lights (ADN) | : 1         |

### - Rail transport

|                           |      |
|---------------------------|------|
| Classification code (RID) | : F1 |
| Limited quantities (RID)  | : 1L |
| Excepted quantities (RID) | : E2 |

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|   |                     |
|---|---------------------|
| Packing instructions (RID)                                | : P001, IBC02, R001 |
| Mixed packing provisions (RID)                            | : MP19              |
| Portable tank and bulk container instructions (RID)       | : T4                |
| Portable tank and bulk container special provisions (RID) | : TP1               |
| Tank codes for RID tanks (RID)                            | : LGBF              |
| Transport category (RID)                                  | : 2                 |
| Colis express (express parcels) (RID)                     | : CE7               |
| Hazard identification number (RID)                        | : 33                |

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

n-HEXANE 99% AR is not on the REACH Candidate List

n-HEXANE 99% AR is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to AwSV; ID No. 124)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : n-HEXANE 99% AR is listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : n-HEXANE 99% AR is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

##### Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product  
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

# n-HEXANE 99% AR

## Safety Data Sheet

### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

Full text of R-, H- and EUH-statements:

|                   |  |
|-------------------|--|
| Aquatic Chronic 2 | Hazardous to the aquatic environment — Chronic Hazard, Category 2                          |
| Asp. Tox. 1       | Aspiration hazard, Category 1  |
| Flam. Liq. 2      | Flammable liquids, Category 2  |
| Repr. 2           | Reproductive toxicity, Category 2  |
| Skin Irrit. 2     | Skin corrosion/irritation, Category 2  |
| STOT RE 2         | Specific target organ toxicity — Repeated exposure, Category 2                             |
| STOT SE 3         | Specific target organ toxicity — Single exposure, Category 3, Narcosis                     |
| H225              | Highly flammable liquid and vapour.  |
| 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 through prolonged or repeated exposure.                         |
| H411              | Toxic to aquatic life with long lasting effects.   |
| 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               | Vapours may cause drowsiness and dizziness   |
| F                 | Highly flammable   |
| N                 | Dangerous for the environment  |
| Xi                | Irritant   |
| Xn                | Harmful  |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*