

### MATERIAL SAFETY DATA SHEET (MSDS)

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

##### 1.1. Product identifier

Product form : Substance  
:  
CAS-No. : 142-82-5  
Product code : 00158

##### 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  
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

SPAN LAB  
UNIT NO. 14, SKY INDUSTRIAL ESTATE, WALIV, VASAI (E)  
401208 Mumbai - INDIA  
PH: +91 9820509929  
[info@spanlab.in](mailto:info@spanlab.in) [www.spanlab.in](http://www.spanlab.in)

#### SECTION 2: Hazards identification

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

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

Flammable liquids, H225  
Category 2  
Skin corrosion/irritation, H315  
Category 2  
Specific target organ H336  
toxicity — Single  
exposure, Category 3,  
Narcosis  
Aspiration hazard, H304  
Category 1  
Hazardous to the aquatic H410  
environment — Chronic  
Hazard, Category 1

Full text of H statements : see section 16

# n-HEPTANE 99% FOR SYNTHESIS

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

F; R11  
Xn; R65  
Xi; R38  
N; R50/53  
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.  
H410 - Very 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.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : n-HEPTANE 99% FOR SYNTHESIS  
CAS-No. : 142-82-5

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

### 3.2. Mixtures

Not applicable

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
- First-aid measures after skin contact : Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth out with water.

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

- Symptoms/effects after inhalation : 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 : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>).
- 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 : Avoid contact with skin, eyes and clothing.

##### 6.1.2. For emergency responders

- Protective equipment : Avoid breathing dust/fume/gas/mist/vapours/spray.

#### 6.2. Environmental precautions

Very toxic to aquatic life with long lasting effects.

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

- Methods for cleaning up : Clean contaminated surfaces with an excess of water.

#### 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. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Wash hands, forearms and face thoroughly after handling.

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

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 : 100.21 g/mol  
Colour : Clear Colorless.  
Odour : mild odor - gasoline-like.  
Odour threshold : No data available  
pH : No data available  
Relative evaporation rate (butylacetate=1) : 2.8  
Melting point : -91 °C  
Freezing point : No data available  
Boiling point : 98 °C  
Flash point : -4 °C  
Auto-ignition temperature : 223 °C  
Decomposition temperature : No data available  
Flammability (solid, gas) : Flammable  
Highly flammable liquid and vapour.  
Vapour pressure : 53.3 hPa at 20,0 °C  
Relative vapour density at 20 °C : 3.5  
Relative density : No data available

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Density	: 0.68 g/cm <sup>3</sup>
Solubility	: Water: Insoluble in water
Log Pow	: > 3
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 0.011 - 0.07 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.

### 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	: Not classified
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

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

#### 12.2. Persistence and degradability

##### n-HEPTANE 99% FOR SYNTHESIS (142-82-5)

Persistence and degradability	May cause long-term adverse effects in the environment.
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#### 12.3. Bioaccumulative potential

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Log Pow	> 3
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#### 12.4. Mobility in soil

No additional information available

#### 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) : 1206

UN-No. (IMDG) : 1206

UN-No. (IATA) : 1206

UN-No. (ADN) : 1206

UN-No. (RID) : 1206

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : HEPTANES

Proper Shipping Name (IMDG) : HEPTANES

Proper Shipping Name (IATA) : Heptanes

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Proper Shipping Name (ADN)	: HEPTANES
Proper Shipping Name (RID)	: HEPTANES
Transport document description (ADR)	: UN 1206 HEPTANES, 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 1206 HEPTANES, 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 1206 Heptanes, 3, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 1206 HEPTANES, 3, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 1206 HEPTANES, 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



#### 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

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### 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)	: 1I
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P001, IBC02, R001
Mixed packing provisions (ADR)	: MP19
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)	: TP2
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: B
Properties and observations (IMDG)	: Colourless, volatile liquids. Explosive limits: 1.1% to 6.7% n-HEPTANE: flashpoint - 4°C c.c. Immiscible with water. Irritating to skin, eyes and mucous membranes.
MFAG-No	: 128



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### - 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
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-HEPTANE 99% FOR SYNTHESIS is not on the REACH Candidate List

n-HEPTANE 99% FOR SYNTHESIS is not on the REACH Annex XIV List

#### 15.1.2. National regulations

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### Germany

Reference to AwSV : Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to AwSV; ID No. 120)

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 : The substance is not 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 : The substance is not 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

## 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

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

Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Skin Irrit. 2	Skin corrosion/irritation, 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.
H410	Very toxic to aquatic life with long lasting effects.
R11	Highly flammable
R38	Irritating to skin
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
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

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## Safety Data Sheet

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*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.*