# Safety Data Sheet

Date of Issue: 10.09.2025 Date of Expiry: 10.09.2030

## 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Company Name** : **ECP Limited**
Address : PO Box 34125, Birkenhead, Auckland 0746
Telephone : +64 9 480 4386
Emergency phone number : 0800 243 622 (24 hours)

| | |
|---|---|
| **Product Name** | **Hexane** |
| **Product Code** | 26431 , 26432, 26438, 26439 |
| **CAS No.** | 110-54-3 |

**Recommended use** : Laboratory Investigations

## 2: Hazard's identification

### 2.1 GHS Classification

Flammable liquids (Category 2), H225
Skin corrosion/irritation (Category 2), H315
Serious eye damage/eye irritation (Category 2), H319
Reproductive toxicity (Category 2), H361
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336
Specific target organ toxicity - repeated exposure (Category 1), H372
Aspiration hazard (Category 1), H304
Hazardous to the aquatic environment - chronic hazard (Category 2), H411

### 2.2 GHS Label elements, including precautionary statements

**Pictogram**

**Signal Word : Danger**

**Hazard Statements**

H225 Highly flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H361 Suspected of damaging fertility or the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects

**Precautionary Statements**

**Prevention**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe mist or vapors.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response**
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391 Collect spillage.

## 3: Composition/information on ingredients

### 3.1 Substances

| | | |
|---|---|---|
| Formula | : | C6H14 |
| Molecular weight | : | 86.18 g/mol |
| CAS-No. | : | 110-54-3 |
| EC-No. | : | 203-777-6 |
| Index-No. | : | 601-037-00-0 |

## 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**
Fresh air. Call in physician.

**In case of skin contact**
Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

**In case of eye contact**
Rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

**If swallowed**
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

## 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**
Carbon dioxide (CO2) Foam Dry powder

**Unsuitable extinguishing media**
For this substance/mixture no limitations of extinguishing agents are given.

### 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.

## 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). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections
For disposal see section 13.

## 7: Handling and storage

### 7.1 Precautions for safe handling
**Advice on safe handling**
Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

**Advice on protection against fire and explosion**
Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

**Hygiene measures**
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
**Storage conditions**
Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.
Recommended storage temperature see product label.

**Storage class**
Storage class (TRGS 510): 3: Flammable liquids

**7.3 Specific end use(s)**
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8: Exposure controls/personal protection

**8.1 Control parameters**
**Occupational Exposure Limits Table**

| Component | CAS No. | Value | Control parameters | Basis |
|---|---|---|---|---|
| n-Hexane | 110-54-3 | WES-TWA | 20 ppm 72 mg/m3 | New Zealand. Workplace Exposure Standards for Atmospheric Contaminants |
| | Remarks | | Ototoxin<br>Exposure can also be estimated by biological monitoring | |

**8.2 Exposure controls**
**Appropriate engineering controls**
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

**Personal protective equipment**
**Eye/face protection**
Face shield and safety glasses.

**Skin protection**
Handle with gloves. Nitrile recommended.

**Body Protection**
Flame retardant antistatic protective clothing.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls.

**Control of environmental exposure**
Do not let product enter drains. Risk of explosion.

## 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

| | | |
|---|---|---|
| a) Physical state | : | liquid |
| b) Color | : | colorless |
| c) Odor | : | hydrocarbon-like |
| d) Melting point/freezing point ,Melting point | : | -95.35 °C at 1,013 hPa |
| e) Initial boiling point and boiling range | : | 69 °C at 1,013 hPa |
| f) Flammability (solid, gas) | : | No data available |
| g) Upper/lower flammability or explosive limits | | |
| Upper explosion limit | : | 8.1 %(V) |
| Lower explosion limit | : | 1.0 %(V) |
| h) Flash point | : | -22 °C - closed cup - c.c. |

| | | |
|---|---|---|
| i) Autoignition temperature | : | 225 °Cat 1,013 hPa |
| j) Decomposition temperature | : | No data available |
| k) pH | : | 7.0 |
| l) Viscosity | | |
| Viscosity, kinematic | : | No data available |
| Viscosity, dynamic | : | 0.3 mPa.s at 25 °C |
| m) Water solubility | : | 0.01 g/l at 25 °C - slightly soluble |
| n) Partition coefficient: n-octanol/water | : | log Pow: ca.4 at 20 °C - (Lit.), Potential bioaccumulation |
| o) Vapor pressure | : | 175.98 hPa at 20.0 °C |
| p) Density | : | 0.66 g/cm3 at 25 °C |
| Relative density | : | No data available |
| q) Relative vapor density | : | No data available |
| r) Particle characteristics | : | No data available |
| s) Explosive properties | : | Not classified as explosive. |
| t) Oxidizing properties | : | none |

## 10: Stability and reactivity

### 10.1 Reactivity
Vapors may form explosive mixture with air.

### 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:
Violent reactions possible with:
Strong oxidizing agents
nitrogen oxides
halogens
rubber
various plastics
Risk of ignition or formation of inflammable gases or vapours with:
Peroxides
(sodium salt)

### 10.4 Conditions to avoid
Warming.

### 10.5 Incompatible materials
No data available

### 10.6 Hazardous decomposition products
In the event of fire: see section 5

## 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 - vapor

Remarks: (RTECS)
LD50 Dermal - Rabbit - male - > 2,000 mg/kg
(OECD Test Guideline 402)

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

Germ cell mutagenicity
Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Test system: Mouse lymphoma test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: dominant lethal test
Species: Mouse
Application Route: inhalation (vapor)
Method: OECD Test Guideline 478
Result: negative

Test Type: Chromosome aberration test
Species: Rat
Cell type: Bone marrow
Application Route: Gavage
Method: OECD Test Guideline 475
Result: negative

Carcinogenicity
No data available

Reproductive toxicity
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 - Causes damage to organs through prolonged or repeated exposure. - Nervous system

Aspiration hazard
Aspiration may cause pulmonary edema and pneumonitis.

**11.2 Additional Information**
Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - 40 mg/kg - LOAEL (Lowest observed adverse effect level) - 200 mg/kg
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 (nebulization's, 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.

## 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**
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**12.6 Endocrine disrupting properties**
No data available

**12.7 Other adverse effects**
No data available

## 13: Disposal considerations

**13.1 Waste treatment methods**
**Product**
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste.

## 14: Transport Information Table

| | | ADR/RID – Land | IMDG- Sea | IATA – DGR- Air |
|---|---|---|---|---|
| **14.1** | **UN Number** | 1208 | 1208 | 1208 |
| **14.2** | **UN Proper Shipping name** | Hexanes | Hexanes | Hexanes |
| **14.3** | **Transport Hazard Class** | 3 | 3 | 3 |
| **14.4** | **Packaging group** | II | II | II |
| **14.5** | **Environmental Hazards** | Yes | Yes | no |
| **14.6** | **Special precautions for user** | - | | |

**Other regulations**
Hazchem Code : 3YE

## 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
**National regulatory information**
HSNO Approval Code: HSR001166
Tracking Required: not required
Approved Handler Cert.: not required

## 16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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