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### 1. Chemical Product

**Product Name:** Hexane  
**Chemical name:** Hexane  
**Synonyms:** n-Hexane; Hexyl hydride; Dipropyl; normal-Hexane; Hex.  
**Chemical Formula:** C₆H₁₄

### 2. Composition and Information on Ingredients

**Composition:** Not applicable  

**Toxicological Data on Ingredients:**  
**ORAL (LD50): Acute**  
Acute: 25000 mg/kg [Rat].

### 3. Hazards Identification

**Potential Acute Health Effects:** Hazardous in case of skin contact (permeator), of ingestion, of inhalation and of eye contact (irritant).  

**Potential Chronic Health Effects:** The substance may be toxic to peripheral nervous system, skin and central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.  

**CARCINOGENIC EFFECTS:** Not applicable  

**MUTAGENIC EFFECTS:** Mutagenic for bacteria and/or yeast.  

**TERATOGENIC EFFECTS:** Fetotoxicity has been observed in the presence of maternal toxicity.  

**DEVELOPMENTAL TOXICITY:** Not applicable
4. First Aid Measures

General measures:

Skin contact: Wash with soap and water and afterwards cover the irritated skin with an emollient. Seek medical attention if irritation develops.

Serious skin contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Eye contact: Remove any contact lenses and afterwards immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention if irritation occurs.

Ingestion: Loosen any tight clothing such as a collar, tie, belt or waistband. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head lower than hips to help prevent aspiration since hexane is an aspiration hazard. If victim is conscious, give 2-4 glasses of water. Seek medical attention if symptoms appear.

Serious ingestion: Not applicable

Inhalation: Remove to fresh air. If not breathing, give artificial respiration or if breathing is difficult, give oxygen. Seek medical attention if symptoms appear.

Serious inhalation: Evacuate to a safe area as soon as possible and afterwards loosen any tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, give oxygen or if not breathing, give artificial respiration. Seek medical attention.

5. Fire and Explosion Data

Flammability of the Product: Flammable

Auto-Ignition Temperature: 225°C

Flash points: CLOSED CUP: -22.5°C

Flammable limits:
LOWER: 1.15%
### UPPER: 7.5%

**Products of Combustion:** Carbon oxides (CO, CO₂)

**Fire Hazards in Presence of Various Substances:** Highly flammable in presence of open flames and sparks and in the presence of heat. Non-flammable in presence of shocks

**Explosion Hazards in Presence of Various Substances:** Not Applicable

**Fire fighting media and Instructions:** Flammable liquid, insoluble in water. Use dry chemical powder in the presence of small fire while for large fires use water spray or fog.

**Special Remarks on Fire Hazards:** Extremely flammable liquid and vapour. Vapour may cause flash fire.

**Special Remarks on Explosion Hazards:** Not applicable

### 6. Accidental Release Measures

**NB:** Wear appropriate protective equipment/clothing including gloves before removing any spills.

**Small spills:** Absorb spillage immediately with a non-combustible, absorbent material which is inert such as sand, earth, vermiculite or diatomaceous earth and dispose of accordingly

**Large spill:** Absorb with dry earth, sand or other non-combustible material. Provide ventilation and use vapour suppressing foam to reduce vapours. Seek assistance on disposal.

### 7. Handling and Storage

**Precautions:** Keep locked up, away from heat and from sources of ignition, and from incompatibles such as oxidising agents. Wear suitable protective clothing to prevent contact and provide sufficient ventilation or wear suitable respiratory equipment.

**Storage:** Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Airborne Exposure Limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWA: 500 (ppm) from OSHA (PEL) [United States]</td>
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<tr>
<td>Inhalation TWA: 1800 (mg/m³) from OSHA (PEL) [United States]</td>
</tr>
<tr>
<td>Inhalation TWA: 176 (mg/m³) from ACGIH (TLV) [United States]</td>
</tr>
<tr>
<td>SKIN TWA: 50 (ppm) from ACGIH (TLV) [United States]</td>
</tr>
<tr>
<td>SKIN TWA: 500 STEL: 1000 (ppm) from ACGIH (TLV) [United States]</td>
</tr>
<tr>
<td>Inhalation TWA: 1760 STEL: 3500 (mg/m³) from ACGIH (TLV) [United States]</td>
</tr>
</tbody>
</table>

| Engineering Controls: | Provide exhaust ventilation and ensure that eyewash stations and safety showers are proximal to the workstation location. |

| Personal Protection: | Wear safety glasses with a face shield, impervious gloves, appropriate chemical resistant lab coat and an appropriate vapour respirator. |

9. Physical and Chemical Properties

| Physical state and appearance: | Clear, colourless liquid |
| Odour: | Gasoline-like or petroleum-like (slight) |
| Taste: | Not applicable |
| Molecular Weight: | 86.18g |
| pH (5% solution/water): | Neutral |
| Boiling Point: | 68°C |
| Melting Point: | -95°C |
| Critical Temperature: | Not applicable |
| Specific Gravity (Water = 1): | 0.66 |
| Vapour Pressure (mmHg): | 17.3 kPa (@ 20°C) |
| Vapour Density: | 2.97 |
| Volatility: | 100% |
| Odour Threshold: | 130 ppm |
| Water/Oil Distribution Coefficient: | log(oil/water) = 3.9 |
| Ionicity (in Water): | Not applicable |
| Dispersion Properties: | Not applicable |
| Solubility: | Soluble in diethyl ether, acetone, chloroform and alcohol. Insoluble in cold and hot water. |
10. Stability and Reactivity Data

**Stability:** Stable under normal temperatures and pressures

**Corrosivity:** Not applicable

**Instability temperature:** Not applicable

**Conditions of Instability:** Heat, ignition sources and incompatibles

**Incompatibles:** Can react vigorously with strong oxidizers (e.g. chlorine, bromine, fluorine)

**Polymerization:** Not applicable

11. Toxicological Information

**Toxicity to animals:**

- LD50 Oral 29700 mg/kg [Rat]
- LD50 Oral 15840 mg/kg [Rat]
- LDLo Intraperitoneal 9100 mg/kg [Rat]
- TDLo Oral 20000 mg/kg [Rat]
- LC50 Inhalation Vapour 627000 mg/m³ (3 minutes) [Rat]
- LC50 Inhalation Vapour 96000 ppm (1 hour) [Rat]
- LC50 Inhalation Gas 48000 ppm (4 hours) [Rat]

**Effects on humans:**

**Acute potential health effects:** Hazardous in case of skin contact (permeator), of ingestion, of inhalation and of eye contact (irritant).

**Chronic potential health effects:**

* MUTAGENIC EFFECTS: May cause damage to the peripheral nervous system, skin, central nervous system (CNS)

* TERATOGENIC EFFECTS: Fetotoxicity has been observed in the presence of maternal toxicity.

* DEVELOPMENTAL TOXICITY: Not applicable

**Other information:** Not applicable
12. Ecological Information

Ecotoxicity:

FISH TOXICITY: 2500 μg/L 96 hour(s) LC50 (Mortality) [Fathead minnow; Pimephales promelas]

ALGAL TOXICITY: 75 μg/L 28 hour(s) (Population Growth) [Green algae; Chlamydomonas sp]

13. Disposal Considerations

Waste Disposal: What is not recycled must be handled as hazardous waste and sent to an approved incinerator or disposed in an approved waste facility. Dispose of in a container for Water Insoluble, Non-Halogenated Waste.

14. References


15. Appendices
Not applicable

16. Revision History

<table>
<thead>
<tr>
<th>Version Number</th>
<th>Amendments/ Reasons for change</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Initial Release</td>
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