

# n-Dodecane MSDS

## 1. Product Name and Identification

**Product Name:** [n-Dodecane](#)

**Synonyms:** Dodecane, 1-Dodecane, n-Dodecylhydrocarbon

**CAS Number:** 112-40-3

**Molecular Formula:** C<sub>12</sub>H<sub>26</sub>

**Manufacturer's Name:** [Fill in as Applicable]

**Emergency Contact:** [Fill in Emergency Number]

## 2. Composition/Ingredients

- **Chemical Name:** n-Dodecane
- **CAS Number:** 112-40-3
- **Purity:** ≥ 99%
- **EC Number:** 203-967-9
- **Hazardous Components:** None beyond standard classification limits.

## 3. Hazards Identification

### Classification:

- Aspiration hazard (Category 1)
- Flammable liquid (Category 4)

### Label Elements:

- **Signal Word:** Danger
- **Hazard Statements:**
  - May be fatal if swallowed and enters airways.
  - Combustible liquid.
- **Precautionary Statements:**
  - Keep away from heat, sparks, open flames, and hot surfaces.
  - Avoid breathing vapors.
  - Store in a well-ventilated place.

### Potential Health Effects:

- **Eye Contact:** May cause mild irritation.
- **Skin Contact:** Prolonged contact can lead to dryness or irritation.
- **Inhalation:** High concentration of vapors may cause respiratory irritation or dizziness.
- **Ingestion:** Aspiration into lungs can cause serious injury or death.

## 4. First Aid Measures

**Eyes:** Rinse thoroughly with water for at least 15 minutes. Seek medical attention if irritation persists.

**Skin:** Remove contaminated clothing and wash skin with soap and water. If irritation develops, seek medical advice.

**Inhalation:** Move the person to fresh air. If breathing is difficult, provide oxygen and seek medical help.

**Ingestion:** Do NOT induce vomiting. Rinse mouth with water and get immediate medical attention.

## 5. Handling and Storage

### Handling:

- Use only in well-ventilated areas.
- Avoid ingestion, inhalation, and contact with skin or eyes.
- Keep away from heat, sparks, or open flames.

### Storage:

- Store in a cool, dry place away from incompatible materials.
- Keep containers tightly closed and properly labeled.
- Avoid temperatures above 45°C (113°F).

## 6. Exposure Controls/Personal Protection

**Exposure Limits:** No established limits for n-Dodecane.

### Engineering Controls:

- Use exhaust ventilation to maintain airborne concentrations below recommended exposure limits.

### Personal Protective Equipment (PPE):

- **Eye Protection:** Safety goggles or face shield.
- **Skin Protection:** Chemical-resistant gloves and protective clothing.
- **Respiratory Protection:** An approved respirator if ventilation is inadequate.
- **Hygiene Measures:** Wash thoroughly after handling and before eating or drinking.

## 7. Physical and Chemical Properties

- **Appearance:** Clear, colorless liquid

- **Odor:** Mild, characteristic hydrocarbon odor
- **Melting Point:** -10.5°C
- **Boiling Point:** 215-217°C
- **Solubility in Water:** Insoluble
- **Flash Point:** Approx. 71°C (closed cup)
- **Density:** 0.75 g/cm<sup>3</sup> at 20°C
- **Vapor Pressure:** ~0.1 mmHg at 20°C

## 8. Stability and Reactivity

**Stability:** Stable under normal conditions of storage and use.

**Hazardous Reactions:** None known under recommended conditions.

**Conditions to Avoid:** Heat, flames, and ignition sources.

**Incompatible Materials:** Strong oxidizers, acids, and halogens.

**Hazardous Decomposition Products:** Carbon dioxide, carbon monoxide, and other hydrocarbons when burned.

## 9. Toxicological Information

**Acute Toxicity:**

- **Oral (LD50):** > 10,000 mg/kg (rat)
- **Dermal (LD50):** > 3,000 mg/kg (rabbit)

**Chronic Exposure:** Prolonged skin exposure may cause dryness or cracking.

**Routes of Exposure:** Skin and eye contact, inhalation, or ingestion.

**Symptoms of Overexposure:** Irritation of respiratory system, skin dryness, dizziness, and, in severe cases, aspiration risk.

## 10. Disposal Considerations

**Waste Disposal:**

- Dispose of in accordance with local, regional, and national regulations.
- Do not discharge into drains, surface water, or soil.

**Empty Containers:** Ensure proper cleaning before disposal or recycling. Follow container disposal regulations.

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