

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

- **1.1 Product identifier**
- **Trade name:** N-Dodecane
- **Article number:** 195158
- **CAS Number:**  
112-40-3
- **EC number:**  
203-967-9
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Research use only.
- **1.3 Details of the supplier of the safety data sheet**
- **Further information obtainable from:** Quality Control Department
- **1.4 Emergency telephone number:** CHEMTREC: 1-800-424-9300 (1-703-527-3887)

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



health hazard

*Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.*



*Eye Irrit. 2 H319 Causes serious eye irritation.*

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07 GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**  
*N-Dodecane*
- **Hazard statements**  
*H319 Causes serious eye irritation.*  
*H304 May be fatal if swallowed and enters airways.*
- **Precautionary statements**  
*P101 If medical advice is needed, have product container or label at hand.*  
*P102 Keep out of reach of children.*  
*P103 Read label before use.*  
*P280 Wear eye protection / face protection.*  
*P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.*  
*P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

(Contd. on page 2)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 26.02.2018

Revision: 26.02.2018

**Trade name: N-Dodecane**

(Contd. of page 1)

P337+P313      *If eye irritation persists: Get medical advice/attention.*  
 P405              *Store locked up.*  
 P501              *Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**  
112-40-3 N-Dodecane
- **Identification number(s)**
- **EC number:** 203-967-9

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
*Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
*No further relevant information available.*

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.*
- **6.4 Reference to other sections**  
*See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.*

IN

(Contd. on page 3)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.02.2018

Revision: 26.02.2018

Trade name: N-Dodecane

(Contd. of page 2)

## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:** 15-30°C
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Further information about storage conditions:** Desiccate.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

IN

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 26.02.2018

Revision: 26.02.2018

Trade name: N-Dodecane

(Contd. of page 3)

### SECTION 9: Physical and chemical properties

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

##### · General Information

##### · Appearance:

Form:	Liquid
Colour:	Colourless
Odour:	Indeterminate
Odour threshold:	Not determined.

· pH-value: Not determined.

##### · Change in condition

Melting point/freezing point:	unknown °C
Initial boiling point and boiling range:	Undetermined.

· Flash point: Not applicable.

· Flammability (solid, gas): Not applicable.

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Not determined.

· Explosive properties: Product does not present an explosion hazard.

##### · Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure: Not determined.

· Density: Not determined.

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with water: -  
Not determined.

· Partition coefficient: n-octanol/water: Not determined.

##### · Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

##### · Solvent content:

VOC (EC) 0.00 %

· 9.2 Other information: No further relevant information available.

### SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· 10.3 Possibility of hazardous reactions: No dangerous reactions known.

· 10.4 Conditions to avoid: No further relevant information available.

· 10.5 Incompatible materials: No further relevant information available.

(Contd. on page 5)

IN

**Safety data sheet**  
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Printing date 26.02.2018

Revision: 26.02.2018

Trade name: N-Dodecane

(Contd. of page 4)

· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

**ATE (Acute Toxicity Estimates)**

Inhalative	LC50/4 h	9.6 mg/L (rat)
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**112-40-3 N-Dodecane**

Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rabbit)
Inhalative	LC50/4 h	9.6 mg/L (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard**  
May be fatal if swallowed and enters airways.

### SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

**ATE (Acute Toxicity Estimates)**

Oral	LC50 / 96 h	1,000 mg/L (Oncorhynchus mykiss)
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**112-40-3 N-Dodecane**

Oral	LC50 / 96 h	1,000 mg/L (Oncorhynchus mykiss)
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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

(Contd. on page 6)

**Safety data sheet**  
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Printing date 26.02.2018

Revision: 26.02.2018


Trade name: N-Dodecane

(Contd. of page 5)

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |   |  |
|---|--|
| · <b>14.1 UN-Number</b><br>· <b>ADR, IMDG, IATA</b>   | UN1993   |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR</b><br>· <b>IMDG, IATA</b>                    | 1993 FLAMMABLE LIQUID, N.O.S. (N-Dodecane)<br>FLAMMABLE LIQUID, N.O.S. (N-Dodecane)                                    |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, IMDG, IATA</b>                            |  |
|               |  |
| · <b>Class</b><br>· <b>Label</b>  | 3 Flammable liquids.<br>3  |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>   | III  |
| · <b>14.5 Environmental hazards:</b>  | Not applicable.  |
| · <b>14.6 Special precautions for user</b><br>· <b>EMS Number:</b><br>· <b>Stowage Category</b> | Warning: Flammable liquids.<br>F-E, <u>S-E</u><br>A  |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>                | Not applicable.  |
| · <b>Transport/Additional information:</b>  |  |
| · <b>ADR</b><br>· <b>Limited quantities (LQ)</b><br>· <b>Excepted quantities (EQ)</b>           | 5L<br>Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |
| · <b>IMDG</b><br>· <b>Limited quantities (LQ)</b><br>· <b>Excepted quantities (EQ)</b>          | 5L<br>Code: E1<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 1000 ml |

(Contd. on page 7)

IN

**Safety data sheet**  
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**Trade name: N-Dodecane**

(Contd. of page 6)

· <b>UN "Model Regulation":</b>	UN 1993 <i>FLAMMABLE LIQUID, N.O.S. (N-DODECANE)</i> , 3, III
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### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I Substance is not listed.**
- **15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

### SECTION 16: Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing SDS: Quality Control Dept.**
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - VOC: Volatile Organic Compounds (USA, EU)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  - Asp. Tox. 1: Aspiration hazard – Category 1

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