

1 Identifikasi Senyawa (Tunggal atau Campuran)

- **Product identifier**
- **Trade name:** N-Dodecane
- **Article number:** 195158
- **CAS Number:**
112-40-3
- **EC number:**
203-967-9
- **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.
- **Details of the supplier of the safety data sheet**
- **Further information obtainable from:** Quality Control Department
- **Emergency telephone number:** CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2 Identifikasi Bahaya

- **Classification of the substance or mixture**



health hazard

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



Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**
- **GHS label elements**
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS07 GHS08

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

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- If eye irritation persists: Get medical advice/attention.*
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT: Not applicable.**
 - **vPvB: Not applicable.**

3 Komposisi /Informasi tentang Bahan Penyusun Senyawa Tunggal

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

4 Tindakan Pertolongan Pertama pada Kecelakaan

- **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.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Tindakan pemadaman kebakaran

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

6 Tindakan Penanggulangan jika terjadi Tumpahan dan Kebocoran

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **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.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

7 Penanganan dan Penyimpanan

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **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.
- **Specific end use(s)** No further relevant information available.

8 Kontrol Paparan/ Perlindungan Diri

- **Additional information about design of technical facilities:** No further data; see item 7.
- **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.
- **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.

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· Eye protection:



Tightly sealed goggles

9 Sifat fisika dan kimia

· 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 %

· Other information: No further relevant information available.

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10 Stabilitas dan Reaktifitas

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Informasi Toksikologi

- **Information on toxicological effects**
- **Acute toxicity:**

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

ATE (Acute Toxicity Estimates)

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

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** No irritant effect.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.

12 Informasi Ekologi

- **Toxicity**

· **Aquatic toxicity:**

ATE (Acute Toxicity Estimates)

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

Oral	LC50 / 96 h	1,000 mg/L (<i>Oncorhynchus mykiss</i>)
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- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· *Other adverse effects* No further relevant information available.

13 Pembuangan Limbah

- *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.

14 Informasi Transpor/Pengangkutan

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

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· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (N-DODECANE), 3, III

15 Informasi yang Berkaitan dengan Regulasi

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **GHS label elements**
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS07 GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
N-Dodecane
- **Hazard statements**
Causes serious eye irritation.
May be fatal if swallowed and enters airways.
- **Precautionary statements**
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Wear eye protection / face protection.
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** *Substance is not listed.*
- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Informasi Lain

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
EINECS: European Inventory of Existing Commercial Chemical Substances

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Trade name: N-Dodecane*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. 2A: Serious eye damage/eye irritation – Category 2A**Asp. Tox. 1: Aspiration hazard – Category 1*

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