

## 1-Octene

Version number: GHS 1.0

Date of compilation: 2022-05-31

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

#### 1.1 Product identifier

|                                 |                 |
|---------------------------------|-----------------|
| Identification of the substance | <b>1-Octene</b> |
| CAS number                      | 111-66-0        |
| Article number                  | A0013719        |

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

|                          |             |
|--------------------------|-------------|
| Relevant identified uses | General use |
|--------------------------|-------------|

#### 1.3 Details of the supplier of the safety data sheet

Chemos GmbH & Co. KG  
 Sonnenring 7  
 84032 Altdorf  
 Germany

Telephone: +49 871-966346-0  
 Telefax: +49 871-966346-13  
 e-mail: chemos@chemos.de  
 Website: <http://www.chemos.de/>

|                           |                  |
|---------------------------|------------------|
| e-mail (competent person) | chemos@chemos.de |
|---------------------------|------------------|

#### 1.4 Emergency telephone number

|                               |                |
|-------------------------------|----------------|
| Emergency information service | +49 89 1 92 40 |
|-------------------------------|----------------|

| Poison centre  |   |                      |                   |         |
|----------------|---|----------------------|-------------------|---------|
| Country        | Name  | Postal code/<br>city | Telephone         | Telefax |
| United Kingdom | National Poison Information Centre<br>Medical Toxicology Unit | SE14 5ER Lon-<br>don | +44 171 635 91 91 |         |

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification acc. to GHS

| Section | Hazard class  | Category | Hazard class and cat-<br>egory | Hazard state-<br>ment |
|---------|---|----------|--------------------------------|-----------------------|
| 2.6     | flammable liquid                                      | 2        | Flam. Liq. 2                   | H225                  |
| 3.10    | aspiration hazard                                     | 1        | Asp. Tox. 1                    | H304                  |
| 4.1C    | hazardous to the aquatic environment - chronic hazard | 1        | Aquatic Chronic 1              | H410                  |

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources. Spillage and fire water can cause pollution of watercourses.

#### 2.2 Label elements

Labelling

|               |        |
|---------------|--------|
| - Signal word | danger |
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### - Pictograms

GHS02, GHS08, GHS09



### - Hazard statements

H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H410 Very toxic to aquatic life with long lasting effects.

### - Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P273 Avoid release to the environment.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P331 Do NOT induce vomiting.  
P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.  
P391 Collect spillage.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container to industrial combustion plant.

## 2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                   |                                |
|-------------------|--------------------------------|
| Name of substance | 1-Octene                       |
| Identifiers       |                                |
| CAS No            | 111-66-0                       |
| Molecular formula | C <sub>8</sub> H <sub>16</sub> |
| Molar mass        | 112.2 g/mol                    |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

#### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

#### Following skin contact

Wash with plenty of soap and water.

#### Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

#### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

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### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

### 4.3 Indication of any immediate medical attention and special treatment needed

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media

Water jet

### 5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

### 6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

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## 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

### 7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

- Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

### 7.3 Specific end use(s)

See section 16 for a general overview.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

This information is not available.

### 8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

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### Skin protection

#### - Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### - Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|  |  |
|--|--|
| Physical state   | liquid   |
| Colour   | not determined                                   |
| Odour  | characteristic                                   |
| Melting point/freezing point                             | -101.7 °C  |
| Boiling point or initial boiling point and boiling range | 122 – 123 °C                                     |
| Flammability   | flammable liquid in accordance with GHS criteria |
| Lower and upper explosion limit                          | not determined                                   |
| Flash point  | 10 °C  |
| Auto-ignition temperature                                | not determined                                   |
| Decomposition temperature                                | not relevant                                     |
| pH (value)   | not determined                                   |
| Kinematic viscosity                                      | not determined                                   |

### Solubility(ies)

|                  |                  |
|------------------|------------------|
| Water solubility | 4.1 g/l at 25 °C |
|------------------|------------------|

### Partition coefficient

|   |                                   |
|---|-----------------------------------|
| Partition coefficient n-octanol/water (log value) | this information is not available |
|---|-----------------------------------|

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|                 |                  |
|-----------------|------------------|
| Vapour pressure | 1.7 hPa at 20 °C |
|-----------------|------------------|

### Density and/or relative density

|                         |   |
|-------------------------|---|
| Density                 | 0.715 g/ml at 25 °C                           |
| Relative vapour density | information on this property is not available |

|                          |                       |
|--------------------------|-----------------------|
| Particle characteristics | not relevant (liquid) |
|--------------------------|-----------------------|

### 9.2 Other information

|  |                                    |
|--|------------------------------------|
| Information with regard to physical hazard classes | there is no additional information |
|--|------------------------------------|

### Other safety characteristics

|                 |       |
|-----------------|-------|
| Solvent content | 100 % |
|-----------------|-------|

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". It's a reactive substance. The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

### 10.5 Incompatible materials

Oxidisers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Classification acc. to GHS

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

May be fatal if swallowed and enters airways.

#### 11.2 Information on other hazards

There is no additional information.

### SECTION 12: Ecological information

#### 12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

#### 12.2 Persistence and degradability

Data are not available.

#### 12.3 Bioaccumulative potential

Data are not available.

#### 12.4 Mobility in soil

Data are not available.

#### 12.5 Results of PBT and vPvB assessment

Data are not available.

#### 12.6 Endocrine disrupting properties

Information on this property is not available.

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### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagegings

It is a dangerous waste; only packagegings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## SECTION 14: Transport information

### 14.1 UN number or ID number

|           |         |
|-----------|---------|
| ADR/RID   | UN 3295 |
| IMDG-Code | UN 3295 |
| ICAO-TI   | UN 3295 |

### 14.2 UN proper shipping name

|           |                              |
|-----------|------------------------------|
| ADR/RID   | HYDROCARBONS, LIQUID, N.O.S. |
| IMDG-Code | HYDROCARBONS, LIQUID, N.O.S. |
| ICAO-TI   | Hydrocarbons, liquid, n.o.s. |

### 14.3 Transport hazard class(es)

|           |   |
|-----------|---|
| ADR/RID   | 3 |
| IMDG-Code | 3 |
| ICAO-TI   | 3 |

### 14.4 Packing group

|           |    |
|-----------|----|
| ADR/RID   | II |
| IMDG-Code | II |
| ICAO-TI   | II |

### 14.5 Environmental hazards

hazardous to the aquatic environment

### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

### 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.



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### Information for each of the UN Model Regulations

#### Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) - Additional information

|                                       |                        |
|---------------------------------------|------------------------|
| Particulars in the transport document | special provision 640C |
| Classification code                   | F1                     |
| Danger label(s)                       | 3, fish and tree       |



|                               |  |
|-------------------------------|--|
| Environmental hazards         | yes (hazardous to the aquatic environment) |
| Special provisions (SP)       | 640C                                       |
| Excepted quantities (EQ)      | E2   |
| Limited quantities (LQ)       | 1 L  |
| Transport category (TC)       | 2  |
| Tunnel restriction code (TRC) | D/E  |
| Hazard identification No      | 33   |
| Emergency Action Code         | 3YE  |

#### Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) - Additional information

|                     |                  |
|---------------------|------------------|
| Classification code | F1               |
| Danger label(s)     | 3, fish and tree |



|                          |                          |
|--------------------------|--------------------------|
| Environmental hazards    | yes (hazardous to water) |
| Special provisions (SP)  | 640C                     |
| Excepted quantities (EQ) | E2                       |
| Limited quantities (LQ)  | 1 L                      |
| Transport category (TC)  | 2                        |
| Hazard identification No | 33                       |

#### International Maritime Dangerous Goods Code (IMDG) - Additional information

|                  |  |
|------------------|--|
| Marine pollutant | yes (hazardous to the aquatic environment) |
| Danger label(s)  | 3, fish and tree                           |



|                          |          |
|--------------------------|----------|
| Special provisions (SP)  | -        |
| Excepted quantities (EQ) | E2       |
| Limited quantities (LQ)  | 1 L      |
| EmS                      | F-E, S-D |
| Stowage category         | B        |

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### International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards YES (hazardous to the aquatic environment)

Danger label(s) 3



Special provisions (SP) A3

Excepted quantities (EQ) E2

Limited quantities (LQ) 1 L

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### Relevant provisions of the European Union (EU)

##### Deco-Paint Directive

|             |       |
|-------------|-------|
| VOC content | 100 % |
|-------------|-------|

##### Industrial Emissions Directive (IED)

|             |       |
|-------------|-------|
| VOC content | 100 % |
|-------------|-------|

##### National regulations (GB)

##### List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

not listed

##### Restrictions according to GB REACH, Annex 17

| Dangerous substances with restrictions (GB REACH, Annex 17) |  |        |    |
|---|--|--------|----|
| Name of substance   | Name acc. to inventory   | CAS No | No |
| 1-Octene  | this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC |        | 3  |
| 1-Octene  | flammable / pyrophoric   |        | 40 |

##### National inventories

| Country | Inventory  | Status              |
|---------|------------|---------------------|
| AU      | AIIC       | substance is listed |
| CA      | DSL        | substance is listed |
| CN      | IECSC      | substance is listed |
| EU      | ECSI       | substance is listed |
| EU      | REACH Reg. | substance is listed |
| JP      | CSCL-ENCS  | substance is listed |
| KR      | KECI       | substance is listed |
| MX      | INSQ       | substance is listed |
| NZ      | NZIoC      | substance is listed |

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| Country | Inventory | Status              |
|---------|-----------|---------------------|
| PH      | PICCS     | substance is listed |
| TR      | CICR      | substance is listed |
| TW      | TCSI      | substance is listed |
| US      | TSCA      | substance is listed |

### Legend

|            |   |
|------------|---|
| AIIC       | Australian Inventory of Industrial Chemicals                            |
| CICR       | Chemical Inventory and Control Regulation                               |
| CSCL-ENCS  | List of Existing and New Chemical Substances (CSCL-ENCS)                |
| DSL        | Domestic Substances List (DSL)  |
| ECSI       | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC      | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ       | National Inventory of Chemical Substances                               |
| KECI       | Korea Existing Chemicals Inventory                                      |
| NZIoC      | New Zealand Inventory of Chemicals                                      |
| PICCS      | Philippine Inventory of Chemicals and Chemical Substances (PICCS)       |
| REACH Reg. | REACH registered substances   |
| TCSI       | Taiwan Chemical Substance Inventory                                     |
| TSCA       | Toxic Substance Control Act   |

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.     | Descriptions of used abbreviations  |
|-----------|---|
| ADR       | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road) |
| CAS       | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| DGR       | Dangerous Goods Regulations (see IATA/DGR)  |
| EINECS    | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS    | European List of Notified Chemical Substances   |
| EmS       | Emergency Schedule  |
| GB REACH  | The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)  |
| GHS       | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA      | International Air Transport Association   |
| IATA/DGR  | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO      | International Civil Aviation Organization   |
| ICAO-TI   | Technical instructions for the safe transport of dangerous goods by air   |
| IMDG      | International Maritime Dangerous Goods Code   |
| IMDG-Code | International Maritime Dangerous Goods Code   |
| NLP       | No-Longer Polymer   |
| PBT       | Persistent, Bioaccumulative and Toxic   |
| REACH     | Registration, Evaluation, Authorisation and Restriction of Chemicals  |

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| Abbr. | Descriptions of used abbreviations  |
|-------|---|
| RID   | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| VOC   | Volatile Organic Compounds  |
| vPvB  | Very Persistent and very Bioaccumulative  |

### Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### List of relevant phrases (code and full text as stated in section 2 and 3)

| Code | Text  |
|------|---|
| H225 | Highly flammable liquid and vapour.                   |
| H304 | May be fatal if swallowed and enters airways.         |
| H410 | Very toxic to aquatic life with long lasting effects. |

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.