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

1.1 Product identifier

Identification of the substance: Dec-1-ene, dimers, hydrogenated
Registration number (REACH): this information is not available
CAS number: 68649-11-6
Alternative name(s): 8-ethyl-9-methylheptadecane; 8-methyl-7-propylhexadecane
Article number: A0159901

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/

1.4 Emergency telephone number

Emergency information service: +49 89 1 92 40

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>Section</th>
<th>Hazard class</th>
<th>Category</th>
<th>Hazard class and category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.11</td>
<td>acute toxicity (inhal.)</td>
<td>4</td>
<td>Acute Tox. 4</td>
<td>H332</td>
</tr>
<tr>
<td>3.10</td>
<td>aspiration hazard</td>
<td>1</td>
<td>Asp. Tox. 1</td>
<td>H304</td>
</tr>
</tbody>
</table>

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)
- Signal word: danger
Dec-1-ene, dimers, hydrogenated

- Pictograms
  GH507, GH508

- Hazard statements
  H304  May be fatal if swallowed and enters airways.
  H332  Harmful if inhaled.

- Precautionary statements
  P261  Avoid breathing dust/fume/gas/mist/vapours/spray.
  P271  Use only outdoors or in a well-ventilated area.
  P301+P310  IF SWALLOWED: Immediately call a POISON CENTER/doctor.
  P304+P340  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  P312  Call a POISON CENTRE/doctor if you feel unwell.
  P331  Do NOT induce vomiting.
  P405  Store locked up.
  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

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>Dec-1-ene, dimers, hydrogenated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifiers</td>
<td></td>
</tr>
<tr>
<td>CAS No</td>
<td>68649-11-6</td>
</tr>
<tr>
<td>EC No</td>
<td>500-228-5</td>
</tr>
</tbody>
</table>

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.

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, BC-powder, Carbon dioxide (CO2)

*Unsuitable extinguishing media*

- Water jet

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

*Hazardous combustion products*

- Carbon monoxide (CO), Carbon dioxide (CO2)

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.

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.

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. Use only in well-ventilated areas.

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

- Ventilation requirements
  Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted.

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.

Human health values

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Protection goal, route of exposure</th>
<th>Used in</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL</td>
<td>60 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>acute - systemic effects</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

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

##### Appearance

<table>
<thead>
<tr>
<th>Physical state</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>various</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

##### Other safety parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (value)</td>
<td>not determined</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>-73 °C at 1,013 hPa</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>223 °C at 1,013 hPa</td>
</tr>
<tr>
<td>Flash point</td>
<td>160 °C at 1,013 hPa</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>not relevant, (fluid)</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>1.889 Pa at 20 °C</td>
</tr>
<tr>
<td>Density</td>
<td>0.8 g/cm³</td>
</tr>
<tr>
<td>Vapour density</td>
<td>this information is not available</td>
</tr>
</tbody>
</table>

##### Solubility(ies)

- Water solubility: <0.1 mg/l at 20 °C

##### Partition coefficient

- n-octanol/water (log KOW): >6.5 (pH value: 7, 20 °C) (ECHA)

##### Auto-ignition temperature

324 °C at 1,013 hPa (ECHA) (auto-ignition temperature (liquids and gases))

<table>
<thead>
<tr>
<th>Viscosity</th>
<th>not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive properties</td>
<td>none</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>none</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and reactivity

10.1 Reactivity
Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability
See below "Conditions to avoid".

10.3 Possibility of hazardous reactions
No known hazardous reactions.

10.4 Conditions to avoid
There are no specific conditions known which have to be avoided.

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.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity
Harmful if inhaled.
GHS of the United Nations, annex 4: May be harmful in contact with skin.

- Acute toxicity estimate (ATE)
  Inhalation: vapour 11 mg/l/4h
  Inhalation: dust/mist 1.81 mg/l/4h

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.

SECTION 12: Ecological information

12.1 Toxicity
Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

<table>
<thead>
<tr>
<th>Process</th>
<th>Degradation rate</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>oxygen depletion</td>
<td>9 %</td>
<td>5 d</td>
</tr>
<tr>
<td>carbon dioxide generation</td>
<td>54.3 %</td>
<td>28 d</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential
The substance fulfils the very bioaccumulative criterion.

n-octanol/water (log KOW) >6.5 (pH value: 7, 20 °C) (ECHA)

12.4 Mobility in soil
Data are not available.

12.5 Results of PBT and vPvB assessment
Data are not available.

12.6 Other adverse effects
Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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-packagings
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  
not subject to transport regulations

14.2 UN proper shipping name  
not relevant

14.3 Transport hazard class(es)  
none

14.4 Packing group  
not assigned to a packing group

14.5 Environmental hazards  
non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user
There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)
Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)
Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)
Not subject to ICAO-IATA.

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)


| VOC content | 100 % |

Directive on industrial emissions (VOCs, 2010/75/EU)

| VOC content | 0 % |

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

SECTION 16: Other information

Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
</tbody>
</table>
Dec-1-ene, dimers, hydrogenated

Abbr. | Descriptions of used abbreviations
---|---
CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR | Dangerous Goods Regulations (see IATA/DGR)
DNEL | Derived No-Effect Level
EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS | European Inventory of Existing Commercial Chemical Substances
ELINCS | European List of Notified Chemical Substances
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
IMDG | International Maritime Dangerous Goods Code
MARPOL | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP | No-Longer Polymer
PBT | Persistent, Bioaccumulative and Toxic
REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals
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


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

<table>
<thead>
<tr>
<th>Code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
</tbody>
</table>

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