1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : ISOFLEX TOPAS L 32 N Spray
Article-No. : 081282

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

Use of the Substance/Mixture : Lubricant spray
Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Klüber Lubrication München
Geisenhusenerstr. 7
81379 München
Deutschland
Tel: +49 (0) 89 7876 0
Fax: +49 (0) 89 7876 333
info@klueber.com

E-mail address : mcm@klueber.com
Responsible/issuing person : Material Compliance Management

National contact : Klüber Lubrication Austria Ges.m.b.H.
Franz-W.-Schererstrasse 32
5020 Salzburg
Austria
+43-662-452705-0
Fax: +43-662-452705-30
office@at.klueber.com

1.4 Emergency telephone number

+43 1 406 43 43 (Vergiftungsinformationszentrale)
0049 (0) 897876-700 (24hrs)

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2 : H229: Pressurised container: May burst if heated.
Specific target organ toxicity - single : H315: Causes skin irritation.
Specific target organ toxicity - single : H336: May cause drowsiness or dizziness.
exposure, Category 3, Central nervous system
Aspiration hazard, Category 1
Chronic aquatic toxicity, Category 3

Classification (67/548/EEC, 1999/45/EC)
Extremely flammable
Dangerous for the environment

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms:

Signal word: Danger

Hazard statements:
H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P261 Avoid breathing mist.
P273 Avoid release to the environment.

Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 Do NOT induce vomiting.

Storage:
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Hazardous components which must be listed on the label:
90622-56-3 Alkanes, C7-10-iso-
### 2.3 Other hazards

### 3. Composition/information on ingredients

#### 3.2 Mixtures

**Chemical nature**: solvent (hydrocarbons)  
- Propellant  
- Synthetic hydrocarbon oil  
- Thickening agent

#### Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Classification</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkanes, C7-10-iso-</td>
<td>90622-56-3</td>
<td>F; R11 Xn; R65 Xi; R38 R67 N; R51/53</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td></td>
<td>292-458-5 / 01-2119471305-42-XXXX</td>
<td>Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dec-1-ene, homopolymer, hydrogenated + 7-methylpentadecane; tetra-1-decen, dimer, trimer, hydrogenated</td>
<td>68037-01-4, 1000172-11-1</td>
<td>Asp. Tox. 1; H304</td>
</tr>
<tr>
<td>propan-2-ol</td>
<td>67-63-0</td>
<td>F; R11 Xi; R36 R67</td>
<td>Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336</td>
</tr>
<tr>
<td></td>
<td>200-661-7 / 01-2119457558-25-XXXX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substances with a workplace exposure limit:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>isobutane</td>
<td>75-28-5</td>
<td>F+; R12</td>
<td>Flam. Gas 1; H220 Press. Gas Compr. Gas; H280</td>
</tr>
<tr>
<td></td>
<td>200-857-2 / 01-203-448-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>propan</td>
<td>74-98-6</td>
<td>F+; R12</td>
<td>Flam. Gas 1; H220 Press. Gas Compr. Gas; H280</td>
</tr>
<tr>
<td></td>
<td>200-827-9 / 01-601-003-00-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>butane</td>
<td>106-97-8</td>
<td>F+; R12</td>
<td>Flam. Gas 1; H220 Press. Gas Compr. Gas; H280</td>
</tr>
<tr>
<td></td>
<td>203-448-7 / 01-601-004-00-0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the R-phrases mentioned in this Section, see Section 16.  
For the full text of the H-Statements mentioned in this Section, see Section 16.
4. First aid measures

4.1 Description of first aid measures

If inhaled:
- Call a physician or poison control centre immediately.
- Remove person to fresh air. If signs/symptoms continue, get medical attention.
- Keep patient warm and at rest.
- If unconscious place in recovery position and seek medical advice.
- Keep respiratory tract clear.
- If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact:
- Remove contaminated clothing. If irritation develops, get medical attention.
- Wash off with soap and plenty of water.
- Wash clothing before reuse.
- Thoroughly clean shoes before reuse.

In case of eye contact:
- Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
- If eye irritation persists, consult a specialist.

If swallowed:
- Move the victim to fresh air.
- If accidentally swallowed obtain immediate medical attention.
- Keep respiratory tract clear.
- Do NOT induce vomiting.
- Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms:
- No information available.

Risks:
- None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment:
- No information available.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media:
- High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting:
- Fire may cause evolution of:
  - Carbon oxides
  - Metal oxides
5.3 Advice for firefighters

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Exposure to decomposition products may be a hazard to health.

Further information: Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Cool containers/tanks with water spray.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Evacuate personnel to safe areas. Ensure adequate ventilation. Remove all sources of ignition. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions: Do not allow contact with soil, surface or ground water. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal. Non-sparking tools should be used.

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Do not use in areas without adequate ventilation.
Do not breathe vapours or spray mist. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes. For personal protection see section 8. Keep away from fire, sparks and heated surfaces. Smoking, eating and drinking should be prohibited in the application area. Wash hands and face before breaks and immediately after handling the product. Do not ingest. Do not use sparking tools. These safety instructions also apply to empty packaging which may still contain product residues. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. Store in accordance with the particular national regulations.

7.3 Specific end use(s)

Consult the technical guidelines for the use of this substance/mixture.

8. Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>isobutane</td>
<td>75-28-5</td>
<td>TMW</td>
<td>800 ppm 1.900 mg/m³</td>
<td>2011-12-19</td>
<td>AT OEL</td>
</tr>
<tr>
<td>isobutane</td>
<td>75-28-5</td>
<td>KZW</td>
<td>1.600 ppm 3.800 mg/m³</td>
<td>2011-12-19</td>
<td>AT OEL</td>
</tr>
<tr>
<td>propan-2-ol</td>
<td>67-63-0</td>
<td>TMW</td>
<td>200 ppm 500 mg/m³</td>
<td>2011-12-19</td>
<td>AT OEL</td>
</tr>
<tr>
<td>propan-2-ol</td>
<td>67-63-0</td>
<td>KZW</td>
<td>800 ppm 2.000 mg/m³</td>
<td>2007-09-11</td>
<td>AT OEL</td>
</tr>
</tbody>
</table>

Further information: Short term value for large casting; applicable until 31.12.2013

<p>| propan-2-ol   | 67-63-0 | KZW        | 800 ppm 2.000 mg/m³ | 2011-12-19 | AT OEL |</p>
<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Source</th>
<th>Exposure Limit</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>TMW</td>
<td>1.000 ppm</td>
<td>2006-06-29</td>
<td>AT OEL</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>KZW</td>
<td>2.000 ppm</td>
<td>2006-06-29</td>
<td>AT OEL</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>KZW</td>
<td>1.600 ppm</td>
<td>2011-12-19</td>
<td>AT OEL</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>TMW</td>
<td>800 ppm</td>
<td>2011-12-19</td>
<td>AT OEL</td>
</tr>
</tbody>
</table>

**DNEL**

**Alkanes, C7-10-iso-**

- **End Use**: Workers
- **Exposure routes**: Inhalation
- **Potential health effects**: Long-term systemic effects
- **Value**: 2035 mg/m³

- **End Use**: Workers
- **Exposure routes**: Skin contact
- **Potential health effects**: Long-term systemic effects
- **Value**: 773 mg/kg

**Propan-2-ol**

- **End Use**: Workers
- **Exposure routes**: Inhalation
- **Potential health effects**: Long-term systemic effects
- **Value**: 500 mg/m³

- **End Use**: Workers
- **Exposure routes**: Skin contact
- **Potential health effects**: Long-term systemic effects
- **Value**: 888 mg/kg

**PNEC**

**Propan-2-ol**

- **Water**
  - **Value**: 140.9 mg/l

- **Marine water**
  - **Value**: 140.9 mg/l

- **Fresh water sediment**
  - **Value**: 552 mg/kg

- **Soil**
  - **Value**: 28 mg/kg

- **Marine sediment**
8.2 Exposure controls

Engineering measures

Use only in an area equipped with explosion proof exhaust ventilation. Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Short term only
Filter type A-P

Hand protection: Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.
In case of contact through splashing:

- Nitrile rubber
  Protective index Class 1

Eye protection: Safety glasses with side-shields conforming to EN166

Hygiene measures: Wash face, hands and any exposed skin thoroughly after handling.

Protective measures: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Environmental exposure controls

General advice: Do not allow contact with soil, surface or ground water. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

9. Physical and chemical properties

Values refer to the propellant:

9.1 Information on basic physical and chemical properties

Appearance: aerosol
## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - AT

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## ISOFLEX TOPAS L 32 N Spray

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>beige</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>-80 °C, Test Method: open cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Extremely flammable aerosol.</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>1.5 % (V)</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>11.2 % (V)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>2.700 hPa, 20 °C</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>0.60 g/cm³, 20 °C</td>
</tr>
<tr>
<td>Water solubility</td>
<td>insoluble</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>&gt; 350 °C</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Sublimation point</td>
<td>No data available</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### 9.2 Other information

- Auto-ignition temperature: No data available
- Ignition temperature: > 350 °C
- Thermal decomposition: No data available
- Viscosity, dynamic: No data available
- Viscosity, kinematic: No data available
- Explosive properties: Not explosive
- Oxidizing properties: No data available

### 10. Stability and reactivity

#### 10.1 Reactivity

No hazards to be specially mentioned.

#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions: No dangerous reaction known under conditions of normal use.
10.4 Conditions to avoid

Conditions to avoid: Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid: Oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products: No decomposition if stored and applied as directed.

11. Toxicological information

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Product</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Effects due to ingestion may include:</td>
</tr>
<tr>
<td></td>
<td>Central nervous system depression</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>Respiration of solvent vapour may cause dizziness.</td>
</tr>
<tr>
<td></td>
<td>Inhalation may provoke the following symptoms:; Respiratory disorder, Dizziness, Drowsiness,</td>
</tr>
<tr>
<td></td>
<td>Vomiting, Fatigue, Vertigo, Central nervous system depression</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>This information is not available.</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Contact with eyes may cause irritation.</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>This information is not available.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td></td>
</tr>
</tbody>
</table>
### Isoflex Topas L 32 N Spray

**Version 1.1**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Rabbit, Result: No eye irritation, Classification: No eye irritation, OECD Test Guideline 405</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Maximisation Test (GPMT), Guinea pig, Result: Did not cause sensitisation on laboratory animals., Classification: Did not cause sensitisation on laboratory animals., OECD Test Guideline 406</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Rabbit, Result: No skin irritation, Classification: No skin irritation, OECD Test Guideline 404, GLP: yes</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Rabbit, Result: No eye irritation, Classification: No eye irritation, OECD Test Guideline 405</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Maximisation Test (GPMT), Guinea pig, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation., OECD Test Guideline 406, GLP: yes</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Tests on bacterial or mammalian cell cultures did not show mutagenic effects.</td>
</tr>
<tr>
<td>STOT - single exposure</td>
<td>Exposure routes: Inhalation. Target Organs: Central nervous system. Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.</td>
</tr>
<tr>
<td>STOT - repeated exposure</td>
<td>Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
</tbody>
</table>

**Dec-1-ene, homopolymer, hydrogenated + 7-methylpentadecane; tetra-1-decen, dimer, trimer, hydrogenated** :

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>LD50: &gt; 5.000 mg/kg, Rat</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>LD50: &gt; 2.000 mg/kg, Rat, OECD Test Guideline 402, The substance or mixture has no acute dermal toxicity</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Rabbit, Result: No skin irritation, Classification: No skin irritation, OECD Test Guideline 404, GLP: yes</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Rabbit, Result: No eye irritation, Classification: No eye irritation, OECD Test Guideline 405, GLP: yes</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Maximisation Test (GPMT), Guinea pig, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation., OECD Test Guideline 406, GLP: yes</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Ames test, Result: negative, Mutagenicity (Escherichia coli - reverse mutation assay), GLP: yes</td>
</tr>
<tr>
<td>Genotoxicity in vitro</td>
<td>Animal testing did not show any mutagenic effects.</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
</tbody>
</table>

**propan-2-ol** :

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>LD50: 5.840 mg/kg, Rat, OECD Test Guideline 401</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>LC50: 72,6 mg/l, 4 h, Rat, vapour</td>
</tr>
</tbody>
</table>
Respiration of solvent vapour may cause dizziness.
Dizziness, Drowsiness, Vomiting, Fatigue, Vertigo, Central nervous system depression, Inhalation may provoke the following symptoms:

- **Acute dermal toxicity**: LD50: 12.800 mg/kg, Rabbit
- **Skin corrosion/irritation**: Rabbit, Result: No skin irritation, Classification: No skin irritation
- **Serious eye damage/eye irritation**: Rabbit, Result: Irritating to eyes., Classification: Irritating to eyes., OECD Test Guideline 405
- **Respiratory or skin sensitisation**: Guinea pig, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation., OECD Test Guideline 406

**Germ cell mutagenicity**
- **Genotoxicity in vitro**: Ames test, with and without metabolic activation, Result: negative
- **Genotoxicity in vivo**: In vivo micronucleus test, Mouse(male and female), Mutagenicity (micronucleus test), GLP: yes, Result: negative
- **Assessment**: Animal testing did not show any mutagenic effects.

**STOT - single exposure**
- Exposure routes: inhalation (vapour)
- Target Organs: Central nervous system
- Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

**isobutane**
- **Acute inhalation toxicity**: LC50: 658 mg/l, 4 h, Rat, gas

**butane**
- **Acute inhalation toxicity**: LC50: 658 mg/l, 4 h, Rat, gas

### 12. Ecological information

#### 12.1 Toxicity

**Product**
- **Toxicity to fish**: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Toxicity to daphnia and other aquatic invertebrates**: No data available
- **Toxicity to algae**: No data available
- **Toxicity to bacteria**: No data available
Components:

Alkanes, C7-10-iso-

Toxicity to fish: LC50: 18.4 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), semi-static test, OECD Test Guideline 203, GLP: yes

Toxicity to daphnia and other aquatic invertebrates: EC50: 2.4 mg/l, 48 h, Daphnia magna (Water flea), static test, OECD Test Guideline 202

Toxicity to algae: EC50: 29 mg/l, 72 h, Pseudokirchneriella subcapitata (green algae), static test, OECD Test Guideline 201, GLP: yes

Toxicity to fish (Chronic toxicity): NOEC: 0.778 mg/l, 28 d, Oncorhynchus mykiss (rainbow trout)

Dec-1-ene, homopolymer, hydrogenated + 7-methylpentadecane; tetra-1-decen, dimer, trimer, hydrogenated:

Toxicity to fish: LC50: > 1.000 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), static test, OECD Test Guideline 203, GLP: yes

Toxicity to daphnia and other aquatic invertebrates: EC50: > 1.000 mg/l, 48 h, Daphnia magna (Water flea), Immobilization, OECD Test Guideline 202, GLP: yes

Toxicity to algae: ErC50: > 1.000 mg/l, 72 h, Scenedesmus capricornutum (fresh water algae), Growth inhibition, OECD Test Guideline 201, GLP: yes

Toxicity to bacteria: EC50: > 1.000 mg/l, 3 h, Bacteria, Respiration inhibition, OECD 209, GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC: 125 mg/l, 21 d, Daphnia magna (Water flea)

propan-2-ol:

Toxicity to fish: LC50: > 1.400 mg/l, 96 h, Pimephales promelas (fathead minnow), flow-through test, OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: EC50: 13.299 mg/l, 48 h, Daphnia magna (Water flea), Immobilization

Toxicity to algae: EC50: > 1.000 mg/l, 72 h, Desmodesmus subspicatus (green algae), Growth inhibition

12.2 Persistence and degradability

Product:

Biodegradability:
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Physico-chemical removability: No data available

Components:
Alkanes, C7-10-iso-:
Biodegradability: aerobic, 51.3 %, Result: Not rapidly biodegradable, Exposure time: 28 d, activated sludge, OECD Test Guideline 301F

Dec-1-ene, homopolymer, hydrogenated + 7-methylpentadecane; tetra-1-decen, dimer, trimer, hydrogenated:
Biodegradability: Primary biodegradation, Result: Not readily biodegradable, activated sludge, OECD Test Guideline 301B

propan-2-ol:
Biodegradability: Result: Readily biodegradable

12.3 Bioaccumulative potential

Product:
Bioaccumulation:
This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT), This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Components:
Dec-1-ene, homopolymer, hydrogenated + 7-methylpentadecane; tetra-1-decen, dimer, trimer, hydrogenated:
Bioaccumulation: Bioconcentration factor (BCF): > 10

12.4 Mobility in soil

Product:
Mobility: No data available
Distribution among environmental compartments: No data available

12.5 Results of PBT and vPvB assessment

Product:
Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:
Alkanes, C7-10-iso-:
Assessment: Non-classified PBT substance, Non-classified vPvB substance

Dec-1-ene, homopolymer, hydrogenated + 7-methylpentadecane; tetra-1-decen, dimer, trimer, hydrogenated:
Assessment: Non-classified PBT substance, Non-classified vPvB substance

propan-2-ol:
Assessment: Non-classified PBT substance, Non-classified vPvB substance

12.6 Other adverse effects

Product:
13. Disposal considerations

13.1 Waste treatment methods

Product: In accordance with local and national regulations.

: Waste codes should be assigned by the user based on the application for which the product was used.

Contaminated packaging: Offer empty spray cans to an established disposal company. Pressurized container: Do not pierce or burn, even after use.

14. Transport information

14.1 UN number

ADR : 1950
IMDG : 1950
IATA : 1950

14.2 Proper shipping name

ADR : AEROSOLS
IMDG : AEROSOLS
IATA : AEROSOLS, FLAMMABLE

14.3 Transport hazard class

ADR : 2
IMDG : 2.1
IATA : 2.1

14.4 Packing group

ADR : 

Classification Code : 5F
Labels : 2.1
Tunnel restriction code : (D)

IMDG

Labels : 2.1
EmS Number : F-D, S-U

IATA

Packing instruction (cargo aircraft) : 203
Labels : 2.1

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

IATA
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Environmentally hazardous : no

14.6 Special precautions for user
No special precautions required.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Remarks : Not applicable for product as supplied.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).
   : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
Risk classification according to VbF : Not applicable
Major Accident Hazard Legislation : 96/82/EC Update:
   Extremely flammable
   8
   Quantity 1: 10 t
   Quantity 2: 50 t

15.2 Chemical Safety Assessment
This information is not available.

16. Other information

Full text of R-phrases referred to under sections 2 and 3
R11          Highly flammable.
R12          Extremely flammable.
R36          Irritating to eyes.
R38          Irritating to skin.
R51/53       Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53       Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65          Harmful: may cause lung damage if swallowed.
R67          Vapours may cause drowsiness and dizziness.

Full text of H-Statements referred to under sections 2 and 3.
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H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Further information

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