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

1.1. Product identifier
121 Adhesive lubricant MP12100400AB

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture
Lubricant

1.3. Details of the supplier of the safety data sheet
Company name: TUNAP GmbH & Co. KG
Street: Bürgermeister-Seidl-Str. 2
Place: D-82515 Wolfratshausen
Telephone: +49 (0) 8171/1600 - 0
Fax: +49 (0) 8171/1600 - 40
Email: sdb@tunap.com
Internet: www.tunap.com

1.4. Emergency telephone
number: +49 (0) 30 30 686 790 (Giftnotruf Berlin)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Regulation (EC) No. 1272/2008
Hazard categories:
Aerosol: Aerosol 1
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:
Extremely flammable aerosol.
Pressurised container: May burst if heated.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Harmful to aquatic life with long lasting effects.

2.2. Label elements
Regulation (EC) No. 1272/2008
Hazard components for labelling
Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics

Signal word: Danger

Pictograms:

Hazard statements
H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
Precautionary statements

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.
P260 Do not breathe Aerosol.
P280 Wear eye/face protection.
P273 Avoid release to the environment.
P271 Use only outdoors or in a well-ventilated area.
P302+P352 IF ON SKIN: Wash with plenty of Water and soap...
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P251 Do not pierce or burn, even after use.

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-28-5</td>
<td>isobutane</td>
<td>50 &lt;= 100 %</td>
</tr>
<tr>
<td>200-857-2</td>
<td></td>
<td>01-2119485395-27</td>
</tr>
<tr>
<td></td>
<td>Flam. Gas 1, Liquefied gas; H220 H280</td>
<td></td>
</tr>
<tr>
<td>74-98-6</td>
<td>propane</td>
<td>5 &lt;= 10 %</td>
</tr>
<tr>
<td>200-827-9</td>
<td></td>
<td>01-2119486944-21</td>
</tr>
<tr>
<td></td>
<td>Flam. Gas 1, Liquefied gas; H220 H280</td>
<td></td>
</tr>
<tr>
<td>92128-66-0</td>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, &lt;5% n-hexane</td>
<td>3 &lt;= 5 %</td>
</tr>
<tr>
<td></td>
<td>01-2119475514-35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411</td>
<td></td>
</tr>
<tr>
<td>64742-49-0</td>
<td>Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics</td>
<td>3 &lt;= 5 %</td>
</tr>
<tr>
<td></td>
<td>01-2119475515-33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411</td>
<td></td>
</tr>
<tr>
<td>106-97-8</td>
<td>butane</td>
<td>1 &lt;= 3 %</td>
</tr>
<tr>
<td>203-448-7</td>
<td></td>
<td>01-2119474691-32</td>
</tr>
<tr>
<td></td>
<td>Flam. Gas 1, Liquefied gas; H220 H280</td>
<td></td>
</tr>
<tr>
<td>4259-15-8</td>
<td>zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)</td>
<td>0.1 &lt;= 1 %</td>
</tr>
<tr>
<td></td>
<td>01-2119493635-27</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1, Aquatic Chronic 2; H318 H411</td>
<td></td>
</tr>
</tbody>
</table>

Full text of H and EUH statements: see section 16.
SECTION 4: First aid measures

4.1. Description of first aid measures

General information
First aider: Pay attention to self-protection! Remove persons to safety. Never give anything by mouth to an unconscious person or a person with cramps.

After inhalation
Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin
Wash with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion
Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

4.2. Most important symptoms and effects, both acute and delayed
Headache, nausea, dizziness, fatigue, skin irritation

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically. Call a POISON CENTER. Symptoms can occur only after several hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing media
Full water jet

5.2. Special hazards arising from the substance or mixture
Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO2, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

5.3. Advice for firefighters
In case of fire and/or explosion do not breathe fumes. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire: Wear self-contained breathing apparatus.

Additional information
Danger of bursting container.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear breathing apparatus if exposed to vapours/dusts/aerosols. Remove all sources of ignition. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wear personal protection equipment.

6.2. Environmental precautions
Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Ensure all waste water is collected and treated via a waste water treatment plant.

6.3. Methods and material for containment and cleaning up
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Clean
contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections
- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
- Observe instructions for use.
- Dust must be exhausted directly at the point of origin. Vapours/aerosols must be exhausted directly at the point of origin. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
- When using do not eat, drink, smoke, sniff.
- Wear personal protection equipment (refer to section 8).
- In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

Advice on protection against fire and explosion
- Keep away from sources of ignition - No smoking. Heating causes rise in pressure with risk of bursting.

Further information on handling
- Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
- Observe legal regulations and provisions.

Hints on joint storage
- Do not store together with: Oxidizing agents. Pyrophoric or self-heating substances. Food and feedingstuffs.

Further information on storage conditions
- Protect from frost. Protect against direct sunlight. Store in a cool dry place. Observe legal regulations and provisions.

7.3. Specific end use(s)
- No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>106-97-8</td>
<td>Butane</td>
<td>600</td>
<td>1450</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>750</td>
<td>1810</td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
</tbody>
</table>
### DNEL/DMEL values

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>DNEL type</th>
<th>Exposure route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>92128-66-0</td>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, &lt; 5% n-hexane</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>2035 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>773 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>608 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>699 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>699 mg/kg bw/day</td>
</tr>
<tr>
<td>64742-49-0</td>
<td>Hydrocarbons, C7, n-alkanes, iso-alikanes, cyclics</td>
<td>Worker DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>2085 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>300 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>inhalation</td>
<td>systemic</td>
<td>447 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>dermal</td>
<td>systemic</td>
<td>149 mg/kg bw/day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer DNEL, long-term</td>
<td>oral</td>
<td>systemic</td>
<td>149 mg/kg bw/day</td>
</tr>
</tbody>
</table>

**Additional advice on limit values**

a. no restriction  

b. End of exposure or end of shift  

c. at long term exposure: after several previous shifts  

d. before next shift

- blood (B)  
- Urine (U)

### 8.2. Exposure controls

**Appropriate engineering controls**  
If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Protective and hygiene measures**  
Avoid exposure. Wear suitable protective clothing. Draw up and observe skin protection programme.

**Eye/face protection**  
Suitable eye protection: Tightly sealed safety glasses.  
DIN EN 166

**Hand protection**  
Protect skin by using skin protective cream. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.  
Suitable material: NBR (Nitrile rubber) Breakthrough time (maximum wearing time) 480min  
Thickness of the glove material 0.45 mm  
DIN EN 374

**Skin protection**  
Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

**Respiratory protection**  
Wear breathing apparatus if exposed to vapours/dusts/aerosols.  
When exceeding the relevant workplace exposure limits, note the following:  
Suitable respiratory protective equipment: Combination filter device (DIN EN 141).  
Filtering device with filter or ventilator filtering device of type: AX  
Observe the wear time limits as specified by the manufacturer.
Observe legal regulations and provisions.

Environmental exposure controls
Observe legal regulations and provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Aerosol</td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>brown</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>solvent like</td>
<td></td>
</tr>
<tr>
<td>pH-Value (at 20 °C)</td>
<td>not determined</td>
<td>DIN 19268</td>
</tr>
<tr>
<td>Changes in the physical state</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>-40 °C</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>-80 °C</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limits</td>
<td>1,5 vol. %</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limits</td>
<td>9,4 vol. %</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Gas</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not oxidising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Density (at 20 °C):</td>
<td>0,829 g/cm³</td>
<td>DIN 51757</td>
</tr>
<tr>
<td>Water solubility</td>
<td>The study does not need to be conducted because the substance is known to be insoluble in water.</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Vapour density</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td>9.2. Other information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid content</td>
<td>not determined</td>
<td></td>
</tr>
</tbody>
</table>

Data apply to technical substance: Relative density, Colour, Odour, Viscosity, pH.

SECTION 10: Stability and reactivity

10.1. Reactivity
Flammable, Ignition hazard.

10.2. Chemical stability
The product is stable under normal conditions.

### 10.3. Possibility of hazardous reactions
Do not expose to temperatures above 50 °C. Heating causes rise in pressure with risk of bursting.

### 10.4. Conditions to avoid
Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. Take precautionary measures against static discharges.

### 10.5. Incompatible materials
Oxidizing agents. Pyrophoric or self-heating substances.

### 10.6. Hazardous decomposition products
Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO₂, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

**Further information**
Do not mix with other chemicals.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicokinetics, metabolism and distribution**
There are no data available on the mixture itself.

**Acute toxicity**
Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure route</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-28-5</td>
<td>isobutane</td>
<td>inhalation vapour</td>
<td>LC50</td>
<td>1237 mg/l</td>
<td>Mouse.</td>
</tr>
<tr>
<td>92128-66-0</td>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, &lt; 5% n-hexane</td>
<td>oral</td>
<td>LD50</td>
<td>&gt; 5000 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>&gt; 2800 - 3100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation (4 h) vapour</td>
<td>LC50</td>
<td>&gt; 25,2 mg/l</td>
<td>Rat</td>
</tr>
<tr>
<td>64742-49-0</td>
<td>Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics</td>
<td>oral</td>
<td>LD50</td>
<td>5500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>&gt; 2800 - 3100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation (4 h) vapour</td>
<td>LC50</td>
<td>&gt; 23,3 mg/l</td>
<td>Rat</td>
</tr>
<tr>
<td>106-97-8</td>
<td>butane</td>
<td>inhalation (4 h) gas</td>
<td>LC50</td>
<td>658 ppm</td>
<td>Rat</td>
</tr>
<tr>
<td>4259-15-8</td>
<td>zinc bis(O,O-bis(2-ethylhexyl)) bis(dithiophosphate)</td>
<td>oral</td>
<td>LD50</td>
<td>&gt;3100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>&gt;2000 - &lt;5000 mg/kg</td>
<td>Rabbit</td>
</tr>
</tbody>
</table>

**Irritation and corrosivity**
Causes skin irritation.
Causes serious eye irritation.
Sensitising effects
Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction
Based on available data, the classification criteria are not met.
No indication of human carcinogenicity.
No indications of human germ cell mutagenicity exist.
No indications of human reproductive toxicity exist.

STOT-single exposure
May cause drowsiness or dizziness.

STOT-repeated exposure
Based on available data, the classification criteria are not met.

Aspiration hazard
Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal
No information available.

SECTION 12: Ecological information

12.1. Toxicity
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Aquatic toxicity</th>
<th>Dose</th>
<th>[h]</th>
<th>[d]</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-28-5</td>
<td>isobutane</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>91,42 mg/l</td>
<td>96 h</td>
<td>Fish, no other information</td>
<td>United States Environmental Protection A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>19,37 mg/l</td>
<td>96 h</td>
<td>Algae</td>
<td>USEPA OPPT Risk Assessment Division 200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>69,43 mg/l</td>
<td>48 h</td>
<td>Daphnia sp.</td>
<td>USEPA OPPT Risk Assessment Division 200</td>
</tr>
<tr>
<td>74-98-6</td>
<td>propane</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>49,9 mg/l</td>
<td>96 h</td>
<td>Fish, no other information</td>
<td>United States Environmental Protection A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>19,37 mg/l</td>
<td>96 h</td>
<td>Algae</td>
<td>USEPA OPPT Risk Assessment Division 200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>69,43 mg/l</td>
<td>48 h</td>
<td>Daphnia sp.</td>
<td>USEPA OPPT Risk Assessment Division 200</td>
</tr>
<tr>
<td>92128-66-0</td>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, &lt; 5% n-hexane</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>&gt;1-10 mg/l</td>
<td>96 h</td>
<td>Pimephales promelas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>10 - 30 mg/l</td>
<td>72 h</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Study report (1995)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>&gt;1-10 mg/l</td>
<td>48 h</td>
<td>Daphnia magna</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish toxicity</td>
<td>NOEC</td>
<td>2,045 mg/l</td>
<td>28 d</td>
<td>Oncorhynchus mykiss</td>
<td>CONCAWE, Brussels, Belgium (2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crustacea toxicity</td>
<td>NOEC</td>
<td>1 mg/l</td>
<td>21 d</td>
<td>Daphnia magna</td>
<td>SIDS Initial Assessment Report For SIAM</td>
</tr>
<tr>
<td>64742-49-0</td>
<td>Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>&gt;1 - 10 mg/l</td>
<td>96 h</td>
<td>Oncorhynchus mykiss (Rainbow trout)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>12 mg/l</td>
<td>72 h</td>
<td>Pseudokirchneriella subcapitata</td>
<td>SIDS Initial Assessment Report For SIAM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>&gt;1 - 10 mg/l</td>
<td>48 h</td>
<td>Daphnia magna</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish toxicity</td>
<td>NOEC</td>
<td>1,534 mg/l</td>
<td>28 d</td>
<td>Oncorhynchus mykiss</td>
<td>CONCAWE, Brussels, Belgium (2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crustacea toxicity</td>
<td>NOEC</td>
<td>1 mg/l</td>
<td>21 d</td>
<td>Daphnia magna</td>
<td>SIDS Initial Assessment Report For SIAM</td>
</tr>
<tr>
<td>106-97-8</td>
<td>butane</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>49,9 mg/l</td>
<td>96 h</td>
<td>Fish, no other information</td>
<td>United States Environmental Protection A</td>
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<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>19,37 mg/l</td>
<td>96 h</td>
<td>Algae</td>
<td>USEPA OPPT Risk Assessment Division 200</td>
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</table>
12.2. Persistence and degradability

The product has not been tested.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Method</th>
<th>Value</th>
<th>d</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>92128-66-0</td>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, &lt; 5% n-hexane</td>
<td>OECD Guideline 301 F</td>
<td>98%</td>
<td>28</td>
<td>Easily biodegradable (concerning to the criteria of the OECD)</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-28-5</td>
<td>isobutane</td>
<td>1,09</td>
</tr>
<tr>
<td>74-98-6</td>
<td>propane</td>
<td>1,09</td>
</tr>
<tr>
<td>92128-66-0</td>
<td>Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, &lt; 5% n-hexane</td>
<td>3.4 - 5.2</td>
</tr>
<tr>
<td>106-97-8</td>
<td>butane</td>
<td>1,09</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160504  WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

Waste disposal number of used product

160504  WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste
Waste disposal number of contaminated packaging
150104  WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND
PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately
collected municipal packaging waste); metallic packaging

Contaminated packaging
Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the
substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)
14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
    Hazard label: 2.1
    Classification code: 5F
    Special Provisions: 190 327 344 625
    Limited quantity: 1 L
    Exempted quantity: E0
    Transport category: 2
    Tunnel restriction code: D

Inland waterways transport (ADN)
14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
    Hazard label: 2.1
    Classification code: 5F
    Special Provisions: 190 327 344 625
    Limited quantity: 1 L
    Exempted quantity: E0

Marine transport (IMDG)
14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
    Hazard label: 2.1
    Marine pollutant: no
    Special Provisions: 63, 190, 277, 327, 344, 381,959
    Limited quantity: 1000 mL
    Exempted quantity: E0
    EmS: F-D, S-U

Air transport (ICAO-TI/IATA-DGR)
14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS, flammable
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
    Hazard label: 2.1
121 Adhesive lubricant MP12100400AB

Print date: 28.06.2019
Product code: 1101056

Special Provisions: A145 A167 A802
Limited quantity Passenger: 30 kg G
Passenger LQ: Y203
Excepted quantity: E0
IATA-packing instructions - Passenger: 203
IATA-max. quantity - Passenger: 75 kg
IATA-packing instructions - Cargo: 203
IATA-max. quantity - Cargo: 150 kg

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user
No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
not applicable

SECTION 15: Regulatory information

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

EU regulatory information
Restrictions on use (REACH, annex XVII):
Entry 28: isobutane; butane
Entry 29: Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane; Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics
2010/75/EU (VOC): No information available.
2004/42/EC (VOC): No information available.

Additional information
Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Aerosol directive (75/324/EEC)

National regulatory information
Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water contaminating class (D): 1 - slightly water contaminating

SECTION 16: Other information

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 Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)
H220: Extremely flammable gas.
H222: Extremely flammable aerosol.
H225: Highly flammable liquid and vapour.
H229: Pressurised container: May burst if heated.
### 121 Adhesive lubricant MP12100400AB

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H280</td>
<td>Contains gas under pressure; may explode if heated.</td>
</tr>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor’s safety data sheet.)*