1.1. Product identifier
Bikeline Chain Wax 125ml 1101807

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture
No information available.

1.3. Details of the supplier of the safety data sheet
Company name: TUNAP Deutschland Vertriebs GmbH & Co. Betriebs KG
Street: Bürgermeister-Seidl-Str. 2
Place: D-82515 Wolfratshausen
Telephone: +49 (0) 8171/1600 - 0
Telefax: +49 (0) 8171/1600 - 40
E-mail: 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
- 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.
- 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 C7-C9, iso-alkanes

Signal word: Danger

Pictograms:

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

Precautionary statements
- P102 Keep out of reach of children.
P101 If medical advice is needed, have product container or label at hand.
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.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P251 Do not pierce or burn, even after use.
P501 Dispose of contents/container to Dispose of contents/container according to the official regulations.

Special labelling of certain mixtures
EUH208 Contains Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts, Sulfonic acids, petroleum, calcium salts, Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts. May produce an allergic reaction.

2.3. Other hazards
No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS No</th>
<th>Chemical name</th>
<th>EC No</th>
<th>Index No</th>
<th>REACH No</th>
</tr>
</thead>
<tbody>
<tr>
<td>106-97-8</td>
<td>butane</td>
<td>25 - &lt; 50 %</td>
<td>203-448-7</td>
<td>601-004-00-0</td>
<td>01-2119474691-32</td>
</tr>
<tr>
<td>75-28-5</td>
<td>isobutane</td>
<td>25 - &lt; 50 %</td>
<td>200-857-2</td>
<td>601-004-00-0</td>
<td>01-2119485395-27</td>
</tr>
<tr>
<td>90622-56-3</td>
<td>Hydrocarbons C7-C9, iso-alkanes</td>
<td>10 - &lt; 20 %</td>
<td>921-728-3</td>
<td>01-2119471305-42</td>
<td>Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411</td>
</tr>
<tr>
<td>74-98-6</td>
<td>propane</td>
<td>3 - &lt; 5 %</td>
<td>200-827-9</td>
<td>601-003-00-5</td>
<td>01-2119486944-21</td>
</tr>
<tr>
<td>68584-23-6</td>
<td>Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts</td>
<td>0.1 - &lt; 1 %</td>
<td>271-529-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61789-86-4</td>
<td>Sulfonic acids, petroleum, calcium salts</td>
<td>0.1 - &lt; 1 %</td>
<td>263-093-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70024-69-0</td>
<td>Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts</td>
<td>0.1 - &lt; 1 %</td>
<td>274-263-7</td>
<td>01-2119492616-28</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
High power 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
- Keep container tightly closed. Observe legal regulations and provisions.

Advice on storage compatibility
- 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

Exposure limits (EH40)

<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>

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

Further information on exposure controls
- 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: A
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>Physical state:</th>
<th>Aerosol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>beige</td>
</tr>
<tr>
<td>Odour:</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>pH-Value (at 20 °C):</th>
<th>not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test method:</td>
<td>DIN 19268</td>
</tr>
</tbody>
</table>

Changes in the physical state
Melting point: not determined
Initial boiling point and boiling range: -40 °C
Flash point: -80 °C

Flammability
Solid: not applicable
Gas: not applicable

Lower explosion limits: 0,7
Upper explosion limits: 9,4

Auto-ignition temperature
Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined
1. Reactivity
   No hazardous reaction when handled and stored according to provisions.

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

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

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.

5. Incompatible materials
   Oxidizing agents. Pyrophoric or self-heating substances.

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.

11. Information on toxicological effects
   Toxicocinetics, 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>106-97-8</td>
<td>butane</td>
<td>inhalative (4 h)</td>
<td>LC50</td>
<td>Rat</td>
<td>GESTIS</td>
</tr>
<tr>
<td>90622-56-3</td>
<td>Hydrocarbons C7-C9, iso-alkanes</td>
<td>oral</td>
<td>LD50</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h)</td>
<td>LC50</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h)</td>
<td>LC50</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>68584-23-6</td>
<td>Benzencesulfonic acid, C10-16-alkyl derivs., calcium salts</td>
<td>oral</td>
<td>LD50</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h)</td>
<td>LC50</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>61789-86-4</td>
<td>Sulfonic acids, petroleum, calcium salts</td>
<td>oral</td>
<td>LD50</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>70024-69-0</td>
<td>Benzencesulfonic acid, mono-C16-24-alkyl derivs., calcium salts</td>
<td>oral</td>
<td>LD50</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalative (4 h)</td>
<td>LC50</td>
<td>Rat</td>
<td></td>
</tr>
</tbody>
</table>

Irritation and corrosivity
Causes skin irritation.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

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. (Hydrocarbons C7-C9, iso-alkanes)

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
The product is not: Ecotoxic.
12.2. Persistence and degradability
The product has not been tested.

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>106-97-8</td>
<td>butane</td>
<td>2.89</td>
</tr>
<tr>
<td>75-28-5</td>
<td>isobutane</td>
<td>2.8</td>
</tr>
<tr>
<td>74-98-6</td>
<td>propane</td>
<td>2.36</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
Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal
Do not allow to enter into surface water or drains. 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
WASTE DISPOSAL NUMBER OF CONTAMINATED PACKAGING

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

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

Completely emptied packages can be recycled.

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
   Excepted 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
   Excepted 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
14.4. Packing group: -
   Hazard label: 2, see SP63
   Marine pollutant: no
   Special Provisions: 63, 190, 277, 327, 344, 959
   Limited quantity: See SP277
   Excepted 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
- Special Provisions: A145 A167 A802
- Limited quantity Passenger: 30 kg G
- Passenger LQ: Y203
- Exempted 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
- Warning: Flammable gases.

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: butane; isobutane
  - 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)
- Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]:
  - Calculation method.
  - Aerosol directive (75/324/EEC)

National regulatory information
- 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.
Bikeline Chain Wax 125ml 1101807

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.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
EUH208 Contains Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts, Sulfonic acids, petroleum, calcium salts, Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts. May produce an allergic reaction.

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.)