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

1.1. Product identifier
909 Interior Complete MP90900500AB

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

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
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
Hazard Statements:
Extremely flammable aerosol.
Pressurised container: May burst if heated.

2.2. Label elements
Regulation (EC) No. 1272/2008
Signal word: Danger
Pictograms:

Hazard statements
H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.

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.
P260 Do not breathe Aerosol.
P280 Wear eye/face protection.
P271 Use only outdoors or in a well-ventilated area.
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.
P501 Dispose of contents/container according to the official regulations.
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>EC No</th>
<th>Index No</th>
<th>REACH No</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>115-10-6</td>
<td>dimethyl ether</td>
<td>10</td>
<td>&lt; 20 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75-28-5</td>
<td>isobutane</td>
<td>10</td>
<td>&lt; 20 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>74-98-6</td>
<td>propane</td>
<td>10</td>
<td>&lt; 3 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>106-97-8</td>
<td>butane</td>
<td>0.1</td>
<td>&lt; 1 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GHS Classification
- Flam. Gas 1, Liquefied gas; H220 H280

Full text of H and EUH statements: see section 16.

Labelling for contents according to Regulation (EC) No 648/2004
15 % - < 30 % aliphatic hydrocarbons, preservation agents (Phenoxyethanol).

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
Rinse mouth immediately and drink plenty of water.

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
SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
- Water fog.
- Foam.
- Carbon dioxide (CO2).
- Extinguishing powder.

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.

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.

6.2. 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
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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

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>
<tr>
<td>115-10-6</td>
<td>Dimethyl ether</td>
<td>400</td>
<td>766</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500</td>
<td>958</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

blood (B)
Urine (U)

8.2. Exposure controls

Appropriate engineering controls
If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

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) 480 min
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

- **Physical state:** Aerosol
- **Colour:** grey
- **Odour:** orange

<table>
<thead>
<tr>
<th>Property</th>
<th>Test method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH-Value (at 20 °C):</td>
<td>not determined</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DIN 19268</td>
<td></td>
</tr>
<tr>
<td><strong>Changes in the physical state</strong></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></td>
<td>-40 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td></td>
<td>-80 °C</td>
</tr>
<tr>
<td><strong>Flammability</strong></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></td>
<td>1,5</td>
</tr>
<tr>
<td>Upper explosion limits:</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></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></td>
<td>not determined</td>
</tr>
<tr>
<td><strong>Oxidizing properties</strong></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>1,04 g/cm³</td>
<td>DIN 51757</td>
</tr>
<tr>
<td>Water solubility:</td>
<td></td>
<td>The study does not need to be conducted because the substance is known to be insoluble in water.</td>
</tr>
</tbody>
</table>

**Solubility in other solvents**
- not determined

- **Partition coefficient:** not determined
- **Vapour density:** not determined
- **Evaporation rate:** not determined

#### 9.2. Other information

- **Solid content:** not determined

Data apply to technical substance: Relative density, Colour, Odour, Viscosity, pH.
SECTION 10: Stability and reactivity

10.1. Reactivity
No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability
The product is stable under storage at normal ambient temperatures.

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
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>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>106-97-8</td>
<td>butane</td>
<td>Inhalation (4 h) gas</td>
<td>LC50</td>
<td>658 ppm</td>
<td>Rat GESTIS</td>
</tr>
</tbody>
</table>

Irritation and corrosivity
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
Based on available data, the classification criteria are not met.

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.

<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>115-10-6</td>
<td>dimethyl ether</td>
<td>Acute fish toxicity</td>
<td>LC50</td>
<td>&gt; 4100 mg/l</td>
<td>96 h</td>
<td>Poecilia reticulata (Guppy)</td>
<td>United States Environmental Protection A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute algae toxicity</td>
<td>ErC50</td>
<td>&gt; 154 mg/l</td>
<td>96 h</td>
<td>Green 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>&gt; 4400 mg/l</td>
<td>48 h</td>
<td>Daphnia magna</td>
<td>USEPA OPPT Risk Assessment Division 200</td>
</tr>
<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>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>
</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>
</tbody>
</table>

12.2. Persistence and degradability
The product has not been tested.

12.3. Bioaccumulative potential
The product has not been tested.
909 Interior Complete MP90900500AB

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Print date: 28.06.2019
Product code: 1101639
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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>115-10-6</td>
<td>dimethyl ether</td>
<td>0.1</td>
</tr>
<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>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

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

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

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): 2.1  
14.4. Packing group: -  
  
Hazard label: 2.1  
Marine pollutant: no  
Special Provisions: 63, 190, 277, 327, 344, 381, 959  
Limited quantity: 1000 mL  
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  
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

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: isobutane; butane
Additional information

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

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,3.

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)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA: International Air Transport Association
IMDG: International Maritime Code for Dangerous Goods
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 (division of the American Chemical Society)
DNEL/DMEL: Derived No Effect Level / Derived Minimal Effect Level
WEL (UK): Workplace Exposure Limits
TWA (EC): Time-Weighted Average
ATE: Acute Toxicity Estimate
STEL (EC) Short Term Exposure Limit
LC50: Lethal Concentration
EC50: half maximal Effective Concentration
ErC50: means EC50 in terms of reduction of growth rate

Relevant H and EUH statements (number and full text)

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.

Further Information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]: Calculation method.
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.)