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

1.1. Product identifier
118 Leakage Detector MP11800400AB

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

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
Telefax: +49 (0) 8171/1600 - 40
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 3
Hazard Statements:
- Pressurised container: May burst if heated.

2.2. Label elements
Regulation (EC) No. 1272/2008
 Signal word: Warning
Hazard statements
- H229 Pressurised container: May burst if heated.
Precautionary statements
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P251 Do not pierce or burn, even after use.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Special labelling of certain mixtures
< 1 % by mass of the contents are flammable.

2.3. Other hazards
No information available.

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></td>
<td></td>
<td>EC No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Index No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>REACH No</td>
</tr>
<tr>
<td>124-38-9</td>
<td>carbon dioxide</td>
<td>1 - &lt; 3 %</td>
</tr>
<tr>
<td>204-696-9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Labelling for contents according to Regulation (EC) No 648/2004**

< 5 % anionic surfactants, < 5 % amphoteric surfactants.

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**
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
Non-flammable.

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

Heating causes rise in pressure with risk of bursting.

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>
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</thead>
<tbody>
<tr>
<td>124-38-9</td>
<td>Carbon dioxide</td>
<td>5000</td>
<td>9150</td>
<td>TWA (8 h)</td>
<td>WEL</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15000</td>
<td>27400</td>
<td>STEL (15 min)</td>
<td>WEL</td>
<td></td>
</tr>
<tr>
<td>57-55-6</td>
<td>Propane-1,2-diol, particulates</td>
<td>-</td>
<td>10</td>
<td>TWA (8 h)</td>
<td>WEL</td>
<td></td>
</tr>
</tbody>
</table>

Additional advice on limit values

a no restriction
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). Filter 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

Physical state: Aerosol
Colour: colourless
Odour: characteristic

Test method: pH-Value (at 20 °C): 9,5 DIN 19268

Changes in the physical state
Melting point: not determined
Initial boiling point and boiling range: 100 °C
Sublimation point: No information available.
Softening point: No information available.
Flash point: 113 °C

Flammability
Solid: not applicable
according to Regulation (EC) No 1907/2006

Safety Data Sheet

TUNAP GmbH & Co. KG

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**Gas:**
- Lower explosion limits: 2,6
- Upper explosion limits: 12,6
- Ignition temperature: No information available.

**Auto-ignition temperature**
- Solid: not applicable
- Gas: not applicable
- Decomposition temperature: not determined

**Oxidizing properties**
- Not oxidising.
- Vapour pressure: not determined
- Density: 1.03 g/cm³ DIN 51757
- Water solubility: easily soluble

**Solubility in other solvents**
- not determined
  - Partition coefficient: not determined
  - Viscosity / dynamic: No information available.
  - Viscosity / kinematic: No information available.
  - Flow time: No information available.
  - Vapour density: not determined
  - Evaporation rate: not determined
  - Solvent separation test: No information available.
  - Solvent content: No information available.

**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 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.
118 Leakage Detector MP11800400AB

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution
No information available.

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

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 indications of human carcinogenicity exist.
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.

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

12.3. Bioaccumulative potential
The product has not been tested.

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
### SECTION 14: Transport information

#### Land transport (ADR/RID)

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 1950</th>
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<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>AEROSOLS</td>
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<tr>
<td>14.3. Transport hazard class(es):</td>
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<td>14.4. Packing group:</td>
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<td>Hazard label:</td>
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<tr>
<td>Classification code:</td>
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<tr>
<td>Special Provisions:</td>
<td>190 327 344 625</td>
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<td>Excepted quantity:</td>
<td>E0</td>
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<td>Transport category:</td>
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<tr>
<td>Tunnel restriction code:</td>
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#### Inland waterways transport (ADN)

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<th>14.1. UN number:</th>
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</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>AEROSOLS</td>
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<tr>
<td>14.3. Transport hazard class(es):</td>
<td>2</td>
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<td>14.4. Packing group:</td>
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<tr>
<td>Hazard label:</td>
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<tr>
<td>Classification code:</td>
<td>5A</td>
</tr>
<tr>
<td>Special Provisions:</td>
<td>190 327 344 625</td>
</tr>
<tr>
<td>Limited quantity:</td>
<td>1 L</td>
</tr>
<tr>
<td>Excepted quantity:</td>
<td>E0</td>
</tr>
</tbody>
</table>

#### Marine transport (IMDG)

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
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<tr>
<td>14.2. UN proper shipping name:</td>
<td>AEROSOLS</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
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<td>14.4. Packing group:</td>
<td>-</td>
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<tr>
<td>Hazard label:</td>
<td>2, see SP63</td>
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<tr>
<td>Marine pollutant:</td>
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<tr>
<td>Special Provisions:</td>
<td>63, 190, 277, 327, 344, 959</td>
</tr>
<tr>
<td>Limited quantity:</td>
<td>See SP277</td>
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<tr>
<td>Excepted quantity:</td>
<td>E0</td>
</tr>
<tr>
<td>EmS:</td>
<td>F-D, S-U</td>
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</tbody>
</table>

#### Air transport (ICAO-TI/IATA-DGR)

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>AEROSOLS, non-flammable</td>
</tr>
</tbody>
</table>
2.2

14.3. Transport hazard class(es): 2.2

14.4. Packing group:

Hazard label: 2.2

Special Provisions: A98 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

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

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, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16.

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

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

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerosol 3; H229</td>
<td>On basis of test data</td>
</tr>
</tbody>
</table>

Relevant H and EUH statements (number and full text)

H229 Pressurised container: May burst 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.)