Safety Data Sheet

according to Regulation (EC) No 1907/2006

127 Injector Cleaner MP12700K05W

Revision date: 16.08.2017 Product code: 1100410 Page 1 of 16

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

1.1. Product identifier

127 Injector Cleaner MP12700K05W

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

TUNAP GmbH & Co. KG
Company name:
Street: Bürgermeister-Seidl-Str. 2
Place: D-82515 Wolfratshausen
Telephone: +49 (0) 8171/1600 - 0
Telex:+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:
Flammable liquid: Flam. Liq. 3
Aspiration hazard: Asp. Tox. 1
Serious eye damage/eye irritation: Eye Dam. 1
Respiratory or skin sensitisation: Skin Sens. 1
Specific target organ toxicity - single exposure: STOT SE 3
Specific target organ toxicity - repeated exposure: STOT RE 1
Hazardous to the aquatic environment: Aquatic Chronic 2
Hazard Statements:
Flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes serious eye damage.
May cause an allergic skin reaction.
May cause drowsiness or dizziness.
Causes damage to organs through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling
Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2 % aromates
n-propanol
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)
(R)-p-mentha-1,8-diene, d-limonene

Signal word: Danger

Pictograms:
Hazard statements

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe vapours.
P280 Wear eye/face protection.
P262 Do not get in eyes, on skin, or on clothing.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of Water and soap.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P314 Get medical advice/attention if you feel unwell.

Special labelling of certain mixtures

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

Contains (R)-p-Mentha-1,8-dien: May produce an allergic reaction.

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>
<th>Index No</th>
<th>REACH No</th>
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<tr>
<td>64742-48-9</td>
<td>Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, &lt; 2 % aromates</td>
<td>25 - &lt; 50 %</td>
<td>918-481-9</td>
<td>01-2119457273-39</td>
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<td>Asp. Tox. 1; H304 EUH066</td>
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<td></td>
<td></td>
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<tr>
<td>71-23-8</td>
<td>n-propanol</td>
<td>10 - &lt; 20 %</td>
<td>200-746-9</td>
<td>01-2119486761-29</td>
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<tr>
<td></td>
<td>Flam. Liq. 2, Eye Dam. 1, STOT SE 3; H225 H318 H336</td>
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<td></td>
</tr>
<tr>
<td>64742-82-1</td>
<td>Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)</td>
<td>10 - &lt; 20 %</td>
<td>919-446-0</td>
<td>01-2119458049-33</td>
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<tr>
<td></td>
<td>Flam. Liq. 3, STOT SE 3, STOT RE 1, Asp. Tox. 1, Aquatic Chronic 2; H226 H336 H372 H304 H411 EUH066</td>
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<td></td>
<td></td>
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<tr>
<td>34590-94-8</td>
<td>(2-methoxymethyleneoxy)propanol</td>
<td>5 - &lt; 10 %</td>
<td>252-104-2</td>
<td></td>
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<tr>
<td>27247-96-7</td>
<td>2-Ethylhexyl nitrate</td>
<td>3 - &lt; 5 %</td>
<td>248-363-6</td>
<td>01-2119539586-27</td>
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<tr>
<td>5989-27-5</td>
<td>(R)-p-mentha-1,8-diene, d-limonene</td>
<td>1 - &lt; 3 %</td>
<td>227-813-5</td>
<td>01-2119529223-47</td>
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<tr>
<td>104-76-7</td>
<td>2-Ethylhexan-1-ol</td>
<td>1 - &lt; 3 %</td>
<td>203-234-3</td>
<td>01-2119487289-20</td>
</tr>
<tr>
<td>64742-94-5</td>
<td>Kohlenwasserstoffe, C10, Aromaten, &lt;1 % Naphthalin</td>
<td>1 - &lt; 3 %</td>
<td>918-811-1</td>
<td>01-2119463583-34</td>
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<tr>
<td>110-91-8</td>
<td>morpholine</td>
<td>0.1 - &lt; 1 %</td>
<td>203-815-1</td>
<td>01-2119496057-30</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
Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

See section 8.

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).

**Advice on protection against fire and explosion**
- Keep away from sources of ignition - No smoking.

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.

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

Further information on storage conditions
- 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>34590-94-8</td>
<td>(2-methoxymethylethoxy) propanol</td>
<td>50</td>
<td>308</td>
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<td>TWA (8 h)</td>
<td>WEL</td>
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<tr>
<td>104-76-7</td>
<td>2-ethylhexan-1-ol</td>
<td>1</td>
<td>5.4</td>
<td></td>
<td>TWA (8 h)</td>
<td>EU</td>
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<tr>
<td>110-91-8</td>
<td>Morpholine</td>
<td>10</td>
<td>36</td>
<td></td>
<td>TWA (8 h)</td>
<td>WEL</td>
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<tr>
<td>71-23-8</td>
<td>Propan-1-ol</td>
<td>20</td>
<td>72</td>
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<td>STEL (15 min)</td>
<td>WEL</td>
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</table>

<table>
<thead>
<tr>
<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>2-Ethylhexyl nitrate</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worker DNEL, long-term</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worker DNEL, long-term inhalation</td>
<td></td>
<td></td>
<td></td>
<td>inhalation</td>
<td>systemic</td>
</tr>
<tr>
<td>Worker DNEL, long-term dermal</td>
<td></td>
<td></td>
<td></td>
<td>dermal</td>
<td>systemic</td>
</tr>
<tr>
<td>Consumer DNEL, long-term</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer DNEL, long-term dermal</td>
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<td></td>
<td></td>
<td>dermal</td>
<td>systemic</td>
</tr>
<tr>
<td>Consumer DNEL, long-term oral</td>
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<td></td>
<td>oral</td>
<td>systemic</td>
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</table>

DNEL/DMEL values
### PNEC values

<table>
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<tr>
<th>CAS No</th>
<th>Substance</th>
<th>Environmental compartment</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>27247-96-7</td>
<td>2-Ethylhexyl nitrate</td>
<td></td>
<td>0.0008 mg/l</td>
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<td>Freshwater</td>
<td></td>
<td>0.00008 mg/l</td>
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<td></td>
<td>Marine water</td>
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<td>0.00074 mg/kg</td>
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<tr>
<td></td>
<td>Freshwater sediment</td>
<td></td>
<td>0.00074 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td></td>
<td>0.00074 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Micro-organisms in sewage treatment plants (STP)</td>
<td></td>
<td>10 mg/l</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td></td>
<td>0.000191 mg/kg</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

**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.

**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**

- Physical state: Liquid
- Colour: yellow-brown
- Odour: orange

Revision No: 1.06 - Replaces version: 1.05

GB - EN

Print date: 20.12.2018
### Changes in the physical state

**Test method**

- **pH-Value (at 20 °C):** 9,94 DIN 19268

**Changes in the physical state**

- **Melting point:** not determined
- **Initial boiling point and boiling range:** 97 °C
- **Flash point:** 26 °C ISO 3679

**Flammability**

- **Solid:** not applicable
- **Gas:** not applicable

**Auto-ignition temperature**

- **Solid:** not applicable
- **Gas:** not applicable

**Decomposition temperature:** not determined

**Oxidizing properties**

- **Not oxidising.**
- **Vapour pressure:** not determined
- **Density (at 20 °C):** 0,831 g/cm³ DIN 51757

**Water solubility:** The study does not need to be conducted because the substance is known to be insoluble in water.

**Solubility in other solvents**

- **Partition coefficient:** not determined
- **Viscosity / dynamic:** not determined
  - DIN 53019-1
- **Viscosity / kinematic:** < 7 mm²/s DIN EN ISO 3104
  - (at 40 °C)
- **Flow time:** DIN EN ISO 2431
  - (at 20 °C)
- **Vapour density:** not determined
- **Evaporation rate:** not determined

### 9.2. Other information

- **Solid content:** not determined

### 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

- No hazardous reaction when handled and stored according to provisions.

#### 10.4. Conditions to avoid

- Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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>
<th>Method</th>
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<tbody>
<tr>
<td>64742-48-9</td>
<td>Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, &lt; 2 % aromates</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>&gt;8000</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
<td>&gt;3160</td>
<td>Rabbit</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>inhalation (4 h) vapour</td>
<td>LC50 mg/l</td>
<td>4951 mg/l</td>
<td>Rat</td>
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<tr>
<td>71-23-8</td>
<td>n-propanol</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>8000</td>
<td>Rat</td>
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</tr>
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<td>4032</td>
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<td>&gt; 33,8</td>
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<tr>
<td>64742-82-1</td>
<td>Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>&gt; 15000</td>
<td>Rat</td>
<td>OECD 401</td>
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<td>Rabbit</td>
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<td>LC50 mg/l</td>
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<td>OECD 403</td>
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<tr>
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<td>oral</td>
<td>LD50 mg/kg</td>
<td>5135</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
<td>13000</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation vapour</td>
<td>LC50 mg/l</td>
<td>500 mg/l</td>
<td>Rat</td>
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<tr>
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<td>LC50 mg/l</td>
<td>500 ppm</td>
<td>Rat</td>
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<tr>
<td>27247-96-7</td>
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<td>oral</td>
<td>LD50 mg/kg</td>
<td>&gt;9640</td>
<td>Rat</td>
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<td>&gt;4820</td>
<td>Rabbit</td>
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<tr>
<td></td>
<td></td>
<td>inhalation (4 h) vapour</td>
<td>LC50 mg/l</td>
<td>11 mg/l</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>inhalation aerosol</td>
<td>ATE</td>
<td>1,5 mg/l</td>
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<td></td>
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<tr>
<td>5989-27-5</td>
<td>(R)-p-mentha-1,8-diene, d-limonene</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td>&gt; 2000</td>
<td>Rat</td>
<td>Study report (2010) OECD Guideline 423</td>
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<tr>
<td></td>
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<td>dermal</td>
<td>LD50 mg/kg</td>
<td>&gt; 2000</td>
<td>Kaninchen</td>
<td>IUCLID</td>
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<td>oral</td>
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<td>LD50 mg/kg</td>
<td>&gt; 3000</td>
<td>Rat</td>
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<td>LC50 mg/l</td>
<td>11 mg/l</td>
<td>Rat</td>
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<tr>
<td></td>
<td></td>
<td>inhalation aerosol</td>
<td>ATE</td>
<td>1,5 mg/l</td>
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</tr>
<tr>
<td>64742-94-5</td>
<td>Kohlenwasserstoffe, C10, Aromaten, &lt; 1 % Naphthalin</td>
<td>oral</td>
<td>LD50 mg/kg</td>
<td></td>
<td>Rat</td>
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<td></td>
<td></td>
<td>dermal</td>
<td>LD50 mg/kg</td>
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<td>inhalation (4 h) vapour</td>
<td>LC50 mg/l</td>
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<tr>
<td></td>
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<td>inhalation aerosol</td>
<td>ATE</td>
<td></td>
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</tr>
</tbody>
</table>
Irritation and corrosivity
Causes serious eye damage.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitisising effects
May cause an allergic skin reaction. ((R)-p-mentha-1,8-diene, d-limonene)

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
May cause drowsiness or dizziness.

STOT-repeated exposure
Repeated exposure may cause skin dryness or cracking. Causes damage to organs through prolonged or repeated exposure. (Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%))

Aspiration hazard
May be fatal if swallowed and enters airways. (Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2% aromates; Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%); (R)-p-mentha-1,8-diene, d-limonene; Kohlenwasserstoffe, C10, Aromaten, <1% Naphthalin)

Specific effects in experiment on an animal
No information available.

Additional information on tests
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
### Aquatic toxicity

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-48-9</td>
<td>Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, &lt; 2 % aromates</td>
<td>LC50 &gt;1000 mg/l</td>
<td>Oncorhynchus mykiss (Rainbow trout)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>71-23-8</td>
<td>n-propanol</td>
<td>LC50 4480 mg/l</td>
<td>Pimephales promelas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64742-82-1</td>
<td>Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)</td>
<td>LC50 10 - 30 mg/l</td>
<td>Leuciscus idus (golden orfe)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34590-94-8</td>
<td>(2-methoxymethylethoxy)propanol</td>
<td>LC50 10000 mg/l</td>
<td>Pimephales promelas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27247-96-7</td>
<td>2-Ethylhexyl nitrate</td>
<td>LC50 2 mg/l</td>
<td>Danio rerio</td>
<td>Study report (2010)</td>
<td>OECD Guideline 203</td>
</tr>
<tr>
<td>5989-27-5</td>
<td>(R)-p-mentha-1,8-diene, d-limonene</td>
<td>LC50 0,72 mg/l</td>
<td>Pimephales promelas</td>
<td>Study report (1990)</td>
<td>OECD Guideline 203</td>
</tr>
<tr>
<td>104-76-7</td>
<td>2-Ethylhexan-1-ol</td>
<td>NOEC 0,08 mg/l</td>
<td>Daphnia magna</td>
<td>Study report (2016)</td>
<td>OECD Guideline 211</td>
</tr>
</tbody>
</table>

### Notes

- **CAS No:** Chemical identification number.
- **Chemical name:** Description of the chemical.
- **Dose:** Concentration used in the test.
- **Species:** Type of organism used in the test.
- **Source:** Reference for the test method.
- **Method:** Type of test conducted.

### References

- Study report (2010)
- OECD Guideline 203
- Study report (1998)
- OECD Guideline 201
- Study report (2013)
- OECD Guideline 202
- Study report (1990)
- OECD Guideline 203
- Study report (2015)
- OECD Guideline 212
- Study report (2016)
- OECD Guideline 211
- Study report (2010)
- OECD Guideline 209

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**Revision No:** 1.06 - Replaces version: 1.05

**Print date:** 20.12.2018
### 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></td>
<td>morpholine</td>
<td>OECD 301E</td>
<td>93%</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

Evaluation

Easily biodegradable (concerning to the criteria of the OECD)

### 12.3. Bioaccumulative potential

The product has not been tested.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-23-8</td>
<td>n-propanol</td>
<td>0.29</td>
</tr>
<tr>
<td>27247-96-7</td>
<td>2-Ethylhexyl nitrato</td>
<td>5.24</td>
</tr>
<tr>
<td>5989-27-5</td>
<td>(R)-p-mentha-1,8-diene, d-limonene</td>
<td>4.38</td>
</tr>
<tr>
<td>104-76-7</td>
<td>2-Ethylhexan-1-ol</td>
<td>2.9</td>
</tr>
<tr>
<td>110-91-8</td>
<td>morpholine</td>
<td>-2.55</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. 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
070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors; hazardous waste

Waste disposal number of used product
070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors; hazardous waste

Waste disposal number of contaminated packaging
150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging
This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (n-propanol; Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %))
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3
Classification code: F1
Special Provisions: 274 601 640E
Excepted quantity: E1
Transport category: 3
Hazard No: 30
Tunnel restriction code: D/E

Other applicable information (land transport)
Limited quantity (LQ): 5 L

Inland waterways transport (ADN)

14.1. UN number: UN 1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (n-propanol; Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %))
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3
### Marine transport (IMDG)

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>FLAMMABLE LIQUID, N.O.S. (n-propanol; Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %); Kerosene (petroleum), hydrodesulfurized, Kerosene – unspecified)</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
<td>3</td>
</tr>
<tr>
<td>14.4. Packing group:</td>
<td>III</td>
</tr>
<tr>
<td>Hazard label:</td>
<td>3</td>
</tr>
<tr>
<td>Marine pollutant:</td>
<td>yes</td>
</tr>
<tr>
<td>Special Provisions:</td>
<td>223, 274, 955</td>
</tr>
<tr>
<td>Exempted quantity:</td>
<td>E1</td>
</tr>
<tr>
<td>EmS:</td>
<td>F-E, S-E</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>14.1. UN number:</th>
<th>UN 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2. UN proper shipping name:</td>
<td>FLAMMABLE LIQUID, N.O.S. (n-propanol; Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %))</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es):</td>
<td>3</td>
</tr>
<tr>
<td>14.4. Packing group:</td>
<td>III</td>
</tr>
<tr>
<td>Hazard label:</td>
<td>3</td>
</tr>
<tr>
<td>Special Provisions:</td>
<td>A3</td>
</tr>
<tr>
<td>Passenger LQ:</td>
<td>Y344</td>
</tr>
<tr>
<td>Exempted quantity:</td>
<td>E1</td>
</tr>
<tr>
<td>IATA-packing instructions - Passenger:</td>
<td>355</td>
</tr>
<tr>
<td>IATA-max. quantity - Passenger:</td>
<td>60 L</td>
</tr>
<tr>
<td>IATA-packing instructions - Cargo:</td>
<td>366</td>
</tr>
<tr>
<td>IATA-max. quantity - Cargo:</td>
<td>220 L</td>
</tr>
</tbody>
</table>

### Environmental hazards

- ENVIRONMENTALLY HAZARDOUS: yes
- Danger releasing substance: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)

### Special precautions for user

Warning: Combustible liquid.

### 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):
According to Regulation (EC) No 1907/2006

Safety Data Sheet

127 Injector Cleaner MP12700K05W

Revision date: 16.08.2017

Entry 28: Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2 % aromates; Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)

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)

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 2 - clearly water contaminating
Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 14.

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%

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>Flam. Liq. 3</td>
<td>H226</td>
</tr>
<tr>
<td>Asp. Tox. 1</td>
<td>H304</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>H318</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>H317</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>H336</td>
</tr>
<tr>
<td>STOT RE 1</td>
<td>H372</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>H411</td>
</tr>
</tbody>
</table>

Relevant H and EUH statements (number and full text)

- H225: Highly flammable liquid and vapour.
- H226: Flammable liquid and vapour.
- H302: Harmful if swallowed.
- H304: May be fatal if swallowed and enters airways.
- H311: Toxic in contact with skin.
- H312: Harmful in contact with skin.
- H314: Causes severe skin burns and eye damage.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
Safety Data Sheet

according to Regulation (EC) No 1907/2006

127 Injector Cleaner MP12700K05W

Revision date: 16.08.2017
Product code: 1100410
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H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
EUH044 Risk of explosion if heated under confinement.
EUH066 Repeated exposure may cause skin dryness or cracking.

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.)