This SDS packet was issued with item:

077109515

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

07109440 077109432 077109440 077109457 077109507 077109564 077109580 077109598 077109606 077109663
077109671 077109689 077109697
1 Identification of substance

- **Product details**
  - **Trade name:** Profluorid L
  - **Application of the substance / the preparation:** Dental varnish

- **Manufacturer/Supplier:**
  - YOCO GmbH
  - Anton-Flettner-Str. 1-3
  - D-27472 Cuxhaven

- **Information department:** Scientific department tel. +49 (0)4721-719-0
- **Emergency information:** Scientific department tel. +49 (0)4721-719-0

2 Composition/Data on components

- **Chemical characterization**
  - **Description:** Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Dangerous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>141-78-6 ethyl acetate</td>
<td>50-100%</td>
</tr>
<tr>
<td>9004-70-0 Cellulose nitrate with alcohol</td>
<td>10-25%</td>
</tr>
<tr>
<td>105-68-0 isopentyl propionate</td>
<td>10-25%</td>
</tr>
<tr>
<td>7681-49-4 sodium fluoride</td>
<td>2.5-5%</td>
</tr>
<tr>
<td>Clove oil</td>
<td>≤ 2.5%</td>
</tr>
</tbody>
</table>

3 Hazards identification

- **Hazard description:**
  - Highly flammable

- **Information pertaining to particular dangers for man and environment:**
  - The product has to be labelled due to the calculation procedure of international guidelines.
  - Highly flammable.
  - Contact with acids liberates toxic gas.
  - Vapours may cause drowsiness and dizziness.

- **Classification system:**
  - The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0 - 4)**
  - Health = 0
  - Fire = 3
  - Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
  - Health = 0
  - Fire = 3
  - Reactivity = 0

- **Additional information:**
  - Material should only be used with extreme caution in individuals who may have control over their swallowing reflex (e.g. pre-school children and the disabled).

4 First aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Swallowing of larger amounts can lead to nausea, vomiting and/or diarrhoea.

(Contd. on page 2)
Trade name: Profluorid L

If symptoms persist consult doctor.

5 Fire fighting measures

- Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Protective equipment: No special measures required.

6 Accidental release measures

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection: Do not allow to enter sewers/surface or ground water.
- Measures for cleaning/collection:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Ensure adequate ventilation.
  - Do not flush with water or aqueous cleansing agents.

7 Handling and storage

- Handling:
  - Information for safe handling:
    - For dental use only.
    - Ensure good ventilation/exhaustion at the workplace.
    - Prevent formation of aerosols.
  - Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:
    - See storage instructions on package
    - Keep receptacle tightly sealed.

8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Components with limit values that require monitoring at the workplace:
<table>
<thead>
<tr>
<th>Component</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>141-78-6 ethyl acetate</td>
<td>1400 mg/m³, 400 ppm</td>
<td>1400 mg/m³, 400 ppm</td>
<td>1440 mg/m³, 400 ppm</td>
</tr>
</tbody>
</table>
- Additional information: The lists that were valid during the creation were used as basis.
- Personal protective equipment:
  - General protective and hygienic measures:
    - Keep away from foods, beverages and feed.
    - Wash hands before breaks and at the end of work.
    - Avoid contact with the eyes.
  - Breathing equipment: Not required.
  - Protection of hands:
    - Protective gloves
Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

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9 Physical and chemical properties

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form:</strong> Fluid</td>
</tr>
<tr>
<td><strong>Color:</strong> Whitish</td>
</tr>
<tr>
<td><strong>Odor:</strong> Characteristic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Melting point/Melting range:</strong> Undetermined.</td>
</tr>
<tr>
<td><strong>Boiling point/Boiling range:</strong> Undetermined.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash point:</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 10°C (&lt; 50°F)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Auto igniting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product is not selfigniting.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Danger of explosion:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Density at 20°C (68°F):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.01 g/cm³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solubility in / Miscibility with</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water:</strong> Not miscible or difficult to mix.</td>
</tr>
</tbody>
</table>

10 Stability and reactivity

<table>
<thead>
<tr>
<th>Thermal decomposition / conditions to be avoided:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No decomposition if used according to specifications.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dangerous reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>No dangerous reactions known.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dangerous products of decomposition:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No dangerous decomposition products known.</td>
</tr>
</tbody>
</table>

11 Toxicological information

<table>
<thead>
<tr>
<th>Acute toxicity:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>LD/LC50 values that are relevant for classification:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td><strong>LD50</strong> 5800 mg/kg (mouse)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>141-78-6 ethyl acetate</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td><strong>LD50</strong> 620 mg/kg (rabbit)</td>
</tr>
<tr>
<td><strong>Inhalative</strong></td>
</tr>
<tr>
<td><strong>LC50/4 h</strong> 1600 mg/l (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>7681-49-4 sodium fluoride</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td><strong>LD50</strong> 32 mg/kg (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary irritant effect:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>on the skin:</strong> No irritant effect.</td>
</tr>
<tr>
<td><strong>on the eye:</strong> Irritating effect.</td>
</tr>
<tr>
<td><strong>Sensitization:</strong> No sensitizing effects known.</td>
</tr>
</tbody>
</table>
Trade name: Profuorid L

Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:

12 Ecological information

Additional ecological information:
General notes:
Water hazard class I (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

Product:
Recommendation:
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information

DOT regulations:

Hazard class: 3
Identification number: UN1993
Packing group: II
Proper shipping name (technical name): FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, NITROCELLULOSE WITH ALCOHOL)
Label: 3

Land transport ADR/RID (cross-border):

ADR/RID class: 3 Flammable liquids
Danger code (Kemler): 33
UN-Number: 1993
Packaging group: II
Label: 3
Description of goods: 1993 FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, NITROCELLULOSE WITH ALCOHOL)

Maritime transport IMDG:

IMDG Class: 3
UN Number: 1993
Label: 3
Packaging group: II
EMS Number: F-E-S-E

(Contd. of page 3)
Trade name: Profluorid L

- Marine pollutant: No
- Proper shipping name: FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, NITROCELLULOSE WITH ALCOHOL)

Air transport ICAO-TI and IATA-DGR:

<table>
<thead>
<tr>
<th>ICAO/IATA Class</th>
<th>UN/ID Number</th>
<th>Label</th>
<th>Packaging group</th>
<th>Proper shipping name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1993</td>
<td>3</td>
<td>11</td>
<td>FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE, NITROCELLULOSE WITH ALCOHOL)</td>
</tr>
</tbody>
</table>

15 Regulations

- **Sara**
  - Section 355 (extremely hazardous substances): None of the ingredients is listed.
  - Section 313 (Specific toxic chemical listings): None of the ingredients is listed.
  - TSCA (Toxic Substances Control Act): Contact Voco for more information.
  - 141-78-6 ethyl acetate
  - Proposition 65
    - Chemicals known to cause cancer: None of the ingredients is listed.
    - Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.
    - Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.
    - Chemicals known to cause developmental toxicity: None of the ingredients is listed.
    - Cancerogenity categories
    - EPA (Environmental Protection Agency) None of the ingredients is listed.
    - IARC (International Agency for Research on Cancer) None of the ingredients is listed.
    - NTP (National Toxicology Program) None of the ingredients is listed.
    - TLV (Threshold Limit Value established by ACGIH) None of the ingredients is listed.
    - NIOSH-Ca (National Institute for Occupational Safety and Health) None of the ingredients is listed.
    - OSHA-Ca (Occupational Safety & Health Administration) None of the ingredients is listed.

(Contd. on page 6)
Trade name: Profluorid L

- **Canadian substance listings:**
  - **Canadian Domestic Substances List (DSL)**
    - Contact VocO for more informations
  - **Canadian Ingredient Disclosure list (limit 0.1%)**
    - Contact VocO for more informations
  - **Canadian Ingredient Disclosure list (limit 1%)**
    - Contact VocO for more informations

- **Product related hazard informations:**
The product has been classified and marked in accordance with directives on hazardous materials.

- **Hazard symbols:**
  - Highly flammable

- **Hazard-determining components of labelling:**
  - Sodium fluoride

- **Risk phrases:**
  - Highly flammable.
  - Contact with acids liberates toxic gas.
  - Vapours may cause drowsiness and dizziness.

- **Safety phrases:**
  - Keep container tightly closed.
  - Keep away from sources of ignition - No smoking.
  - Do not breathe fumes/aerosol.
  - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  - Wear suitable protective clothing, gloves and eye/face protection.
  - In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.

### 1.6 Other information

- This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Scientific department
- **Contact:** Tel.: +49 (0)4721-719-0