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

1.1 Product identifier
- Trade name: LUBA-print® 599/D

1.2 Relevant identified uses of the substance or mixture and uses advised against
- No further relevant information available.

1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: MÜNZING CHEMIE GmbH
- Münzingstrasse 2
- 74232 Abstatt, Germany
- E-Mail: info@munzing.com
- Tel.: +49 7131 987-100

1.4 Emergency telephone number: For Chemical Emergencies: CHEMTREC: +1 703 741 5970

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  The product is not classified as hazardous, according to the CLP regulation.

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008 Void
- Hazard pictograms Void
- Signal word Void
- Hazard statements Void
- Additional information: Contains 2-methyl-2H-isothiazol-3-one. May produce an allergic reaction.
  Safety data sheet available on request.

2.3 Other hazards
- Results of PBT and vPvB assessment
  - PBT: None.
  - vPvB: None.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
- Description: wax emulsion

| CAS: 67-63-0 | Propan-2-ol         |
| EINECS: 200-661-7 | Flammable, Liq. 2, H223; Eye Irrit. 2, H315; STOT SE 3, H336 |
| Reg.nr.: 01-2119457558-25 | 3-5% |

3.3 Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.

(Contd. on page 2)
7.3 Specific end use(s)

50.0.4

Protective equipment:

Further information about storage conditions:

Additional information

5.3 Advice for firefighters

· Store in cool location.

· Protect from frost.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling No special precautions are necessary if used correctly.

Information about fire - and explosion protection:
The product is not flammable.
Protect from heat.

· 7.2 Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles: Store in a cool location.
Information about storage in one common storage facility: Not required.
Further information about storage conditions:
Protect from frost.
Store in cool, dry conditions in well sealed receptacles.

· 7.3 Specific end use(s) No further relevant information available.

(Contd. of page 1)

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.

· 5.2 Special hazards arising from the substance or mixture No further relevant information available.

· 5.3 Advice for firefighters

Protective equipment: Do not inhale explosion gases or combustion gases.

Additional information
Product contains water and is non-combustible.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

(Contd. on page 3)

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.

· 6.2 Environmental precautions:
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 6.4 Reference to other sections
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
recommended thickness of the material: 

- Additional information about design of technical facilities: No further data; see item 7.

- 8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>CAS: 67-63-0 Propan-2-ol</th>
<th>WEL</th>
<th>Short-term value: 1250 mg/m³, 500 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Long-term value: 999 mg/m³, 400 ppm</td>
<td></td>
</tr>
</tbody>
</table>

- DNELs

<table>
<thead>
<tr>
<th>CAS: 67-63-0 Propan-2-ol</th>
<th>Oral: consumer, long-term exposure, systemic effects</th>
<th>26 mg/kg bw/day (human)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dermal: worker, long-term exposure, systemic effects</td>
<td>888 mg/kg bw/day (human)</td>
</tr>
<tr>
<td></td>
<td>Inhalative: worker, long-term exposure, systemic effects</td>
<td>319 mg/kg bw/day (human)</td>
</tr>
<tr>
<td></td>
<td>Conceptional: consumer, long-term exposure, systemic effects</td>
<td>500 mg/m³ (human)</td>
</tr>
<tr>
<td></td>
<td>Sediment: consumer, long-term exposure, systemic effects</td>
<td>89 mg/m³ (human)</td>
</tr>
</tbody>
</table>

- PNECs

<table>
<thead>
<tr>
<th>CAS: 67-63-0 Propan-2-ol</th>
<th>fresh water</th>
<th>140.9 mg/l (not specified)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>marine water</td>
<td>140.9 mg/l (not specified)</td>
</tr>
<tr>
<td></td>
<td>soil</td>
<td>28 mg/kg (not specified)</td>
</tr>
<tr>
<td></td>
<td>sediment (fresh water)</td>
<td>552 mg/kg (not specified)</td>
</tr>
<tr>
<td></td>
<td>sediment (marine water)</td>
<td>552 mg/kg (not specified)</td>
</tr>
</tbody>
</table>

- Additional information: The lists valid during the making were used as basis.

- 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:
  The usual precautionary measures are to be adhered to when handling chemicals.
  Avoid contact with the eyes and skin.

- Respiratory protection: Use suitable respiratory protective device only when aerosol or mist is formed.

- Protection of hands:
  Only use chemical-protective gloves with CE-labelling of category III.
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- Material of gloves
  Nitrile rubber, NBR
  Recommended thickness of the material: ≥ 0.2 mm
  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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Safety glasses

- Body protection: Protective work clothing

(Contd. of page 2)
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- **General Information**
  - **Appearance:** Fluid
  - **Colour:** White
  - **Odour:** Specific type
  - **Odour threshold:** Not determined.

- **pH-value at 20 °C:** ≈ 5 (DIN ISO 976)

- **Change in condition**
  - **Melting point/freezing point:** Undetermined.
  - **Initial boiling point and boiling range:** ≈ 100 °C (water)

- **Flash point:** Not applicable.

- **Flammability (solid, gas):** Not applicable.

- **Ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.

- **Oxidising properties:** None.

- **Vapour pressure:** Not determined.

- **Density at 20 °C:** ≈ 0.97 g/cm³ (DIN EN ISO 2811-1)

- **Relative density:** Not determined.

- **Vapour density:** Not determined.

- **Evaporation rate:** Not determined.

- **Solubility in / Miscibility with water:** Fully miscible.

- **Partition coefficient: n-octanol/water:** Not determined.

- **Viscosity:**
  - **Dynamic at 23 °C:** ≈ 123 mPas (DIN EN ISO 3219)
  - **Kinematic:** Not determined.

- **Solvent content:**
  - **Water:** ≈ 45 %

- **9.2 Other information**
  - No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity
- No further relevant information available.

10.2 Chemical stability
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions
- No dangerous reactions known.

10.4 Conditions to avoid
- No further relevant information available.

10.5 Incompatible materials
- No further relevant information available.

(Contd. of page 5)
SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>CAS: 67-63-0 Propan-2-ol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
<tr>
<td>LC50/4h</td>
</tr>
</tbody>
</table>

- Primary irritant effect: Based on available data, the classification criteria are not met.
- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):
  - Germ cell mutagenicity: Based on available data, the classification criteria are not met.
  - Carcinogenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.
- 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.

SECTION 12: Ecological information

12.1 Toxicity

- Aquatic toxicity:
  
  CAS: 67-63-0 Propan-2-ol
  
<table>
<thead>
<tr>
<th>EC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;1,000 mg/l (alga) (Scenedesmus subspicatus / 72 h)</td>
</tr>
<tr>
<td>13,299 mg/l (daphnia) (Daphnia Magna / 48 h)</td>
</tr>
<tr>
<td>EC10</td>
</tr>
<tr>
<td>5,175 mg/l (bacteria) (Pseudomonas putida / 18 h)</td>
</tr>
<tr>
<td>LC50</td>
</tr>
<tr>
<td>9,640 mg/l (fish) (Pimephales promelas / 96 h)</td>
</tr>
</tbody>
</table>

- 12.2 Persistence and degradability: No further relevant information available.
- 12.3 Bioaccumulative potential: No further relevant information available.
- 12.4 Mobility in soil: No further relevant information available.
- Ecotoxicological effects:
  - Behaviour in sewage processing plants: Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. Do not release untreated into natural waters.

Additional ecological information:

- General notes:
  - Water hazard class 1 (German Regulation) (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.

12.5 Results of PBT and vPvB assessment

According to Annex XIV of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification.

(Contd. on page 6)
SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue
07 07 01* aqueous washing liquids and mother liquors

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

14.1 UN-Number
ADR/RID/ADN, ADN, IMDG, IATA Void

14.2 UN proper shipping name
ADR/RID/ADN, ADN, IMDG, IATA Void

14.3 Transport hazard class(es)
ADR/RID/ADN, ADN, IMDG, IATA Class Void

14.4 Packing group
ADR/RID/ADN, IMDG, IATA Void

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable.

14.8 Transport/Additional information: Not a dangerous good to the above specifications.

UN "Model Regulation": Void

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Directive 2012/18/EU
Named dangerous substances - ANNEX I None of the ingredients is listed.
National regulations:
Waterhazard class: Water hazard class 1 (German AwSV, Self-assessment): slightly hazardous for water.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
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.

- **Relevant phrases**
  - H225 Highly flammable liquid and vapour.
  - H319 Causes serious eye irritation.
  - H336 May cause drowsiness or dizziness.

- **Department issuing SDS:**
  - Product Safety Department
  - E-Mail: msds@munzing.com

- **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 Harmonised 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: Derived No-Effect Level (REACH)
  - PNEC: Predicted No-Effect Concentration (REACH)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3