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

- **1.1 Product identifier**
  - Trade name: LUBA-print® 681
  - UFI: 3VRO-V0NF-A00G-QRU3

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

- **Application of the substance / the mixture** Wax additive for paints and printing inks

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

- **Further information obtainable from:**
  - Product Safety Department
  - E-mail (MSDS): msds@munzing.com

- **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
    - Skin Irrit. 2 H315 Causes skin irritation.
    - Eye Dam. 1 H318 Causes serious eye damage.

- **2.2 Label elements**
  - Labelling according to Regulation (EC) No 1272/2008
    - The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**
  - GHS05

- **Signal word** Danger

- **Hazard-determining components of labelling:**
  - Poly(oxy-1,2-ethanediyl), alpha-isodecyl-omega-hydroxy-2-diemthylaminoethanol

- **Hazard statements**
  - H315 Causes skin irritation.
  - H318 Causes serious eye damage.

- **Precautionary statements**
  - P280 Wear protective gloves/eye protection/face protection.
  - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P310 Immediately call a POISON CENTER/doctor.
  - P321 Specific treatment (see on this label).
  - P362+P364 Take off contaminated clothing and wash it before reuse.
  - P332+P313 If skin irritation occurs: Get medical advice/attention.

- **2.3 Other hazards**
  - Results of PBT and vPvB assessment
    - PBT: None.
SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description: wax emulsion

<table>
<thead>
<tr>
<th>CAS: 61827-42-7</th>
<th>Poly(oxy-1,2-ethanediyl), alpha-isodecyl-omega-hydroxy-</th>
<th>5-&lt;10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymer</td>
<td>Eye Dam. 1; H318</td>
<td></td>
</tr>
<tr>
<td>CAS: 100-37-8</td>
<td>2-diethylaminoethanol</td>
<td>1-&lt;5%</td>
</tr>
<tr>
<td>EINECS: 202-845-2</td>
<td>Flam. Liq. 3, H226; Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332</td>
<td></td>
</tr>
</tbody>
</table>

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.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

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.
- 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.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- 6.2 Environmental precautions: 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).
- Ensure adequate ventilation.
- 6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
Safety data sheet  
according to 1907/2006/EC, Article 31

Printing date 21.01.2020  Version number 1  Revision: 25.05.2016

Trade name: LUBA-print® 681

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
No special precautions are necessary if used correctly.
Ensure good ventilation/exhaustion at the workplace.

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.

SECTION 8: Exposure controls/personal protection

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:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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: ≥ 0.5 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
For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 16523-1:2015: Level 6). The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

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

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - Form: Fluid
    - Colour: Yellowish
    - Odour: Specific type
    - Odour threshold: Not determined.
  - **pH-value at 20 °C:** ≈ 9 (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:** ≈ 1.0 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: ≈ 20 mPas (DIN EN ISO 3219)
    - Kinematic: Not determined.
  - **Solvent content:**
    - Water: ≈ 65 %
  - **9.2 Other information**
    - No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

(Contd. of page 3)
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:

| CAS: 61827-42-7 Poly(oxy-1,2-ethanediyl), alpha-isodecyl-omega-hydroxy- | Oral LD50 | >2,000 mg/kg (rat) |
| CAS: 100-37-8 2-diethylaminoethanol | Oral LD50 | 1,300 mg/kg (rat) |
| Inhalative LC50/4h | 5 mg/l (mouse) |

Primary irritant effect:

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/irritation
Causes serious eye damage.

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: No further relevant information available.

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.

Ecotoxic 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 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product 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. of 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.

· 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.
  · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
  · National regulations:
  · Information about limitation of use:
    Employment restrictions concerning juveniles must be observed.
    Employment restrictions concerning pregnant and lactating women must be observed.

· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: 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.

- **Relevant phrases**
  - H226 Flammable liquid and vapour.
  - H302 Harmful if swallowed.
  - H312 Harmful in contact with skin.
  - H314 Causes severe skin burns and eye damage.
  - H318 Causes serious eye damage.
  - H332 Harmful if inhaled.

- **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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Flam. Liq. 3: Flammable liquids – Category 3
  - Acute Tox. 4: Acute toxicity - oral – Category 4
  - Skin Corr. 1B: Skin corrosion/irritation – Category 1B
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Dam. 1: Serious eye damage/eye irritation – Category 1