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

1.1 Product identifier
- Trade name: LUBA-print® SEB 0820 ET
- UFI: KE80-S0E0-600E-N9XG

1.2 Relevant identified uses of the substance or mixture and uses advised against
- 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
  Münzingstrasse 2
  74232 Abstatt, Germany
  E-Mail: info@munzing.com
  Tel.: +49 7131 987-100

- Further information obtainable from:
  - Product Safety Department
  - E-mail (MSDS): mds@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
  Flam. Liq. 2  H225  Highly flammable liquid and vapour.
  Eye Irrit. 2  H319  Causes serious eye irritation.

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

Hazard pictograms

- GHS02
- GHS07

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

(Contd. on page 2)
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

CAS: 9004-34-6

For the wording of the listed hazard phrases refer to section 16.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Do not inhale explosion gases or combustion gases.

Mixture of substances listed below with nonhazardous additions.

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3.2 Chemical characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>CAS: 64-17-5</th>
<th>Ethanol</th>
<th>Flam. Liq. 2, H225; Eye Irrit. 2, H319</th>
<th>50-75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-578-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119457610-43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 9004-34-6</th>
<th>Cellulose</th>
<th>substance with a workplace exposure limit</th>
<th>10-20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 232-674-9</td>
<td></td>
<td></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:
  Take affected persons into fresh air and keep quiet.
  Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
  In case of unconsciousness place patient stably in side position for transportation.

- After skin contact:
  Immediately wash with water and soap and rinse thoroughly.

- After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- After swallowing:
  Do not induce vomiting; call for medical help immediately.

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.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture
Can form explosive gas-air mixtures.

5.3 Advice for firefighters
Protective equipment: Do not inhale explosion gases or combustion gases.

Additional information
Cool endangered receptacles with water spray.
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
Ensure adequate ventilation
Keep away from ignition sources.
Wear protective clothing.
7.3 Specific end use(s)

Protect from heat.

· See Section 8 for information on personal protection equipment.

Prevent formation of aerosols.

Store in cool, dry conditions in well sealed receptacles.

· WEL Short-term value: 20* mg/m³

Inhalative worker, long-term exposure, systemic effects 950 mg/m³ (human)

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect from heat.

Protect against electrostatic charges.

· 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: Store away from oxidising agents.

Further information about storage conditions: 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

<table>
<thead>
<tr>
<th>CAS: 64-17-5 Ethanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 9004-34-6 Cellulose</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL</td>
</tr>
<tr>
<td>Long-term value: 10* 4** mg/m³</td>
</tr>
<tr>
<td>*inhalable dust **respirable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DNELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64-17-5 Ethanol</td>
</tr>
<tr>
<td>Oral consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>Dermal worker, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>Oral consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>Inhalative worker, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>Inhalative worker, short-term exposure, local effects</td>
</tr>
</tbody>
</table>

(Contd. on page 4)
Recommended thickness of the material: 0.5 mm

Respiratory protection:
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).

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

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
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:
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves
Butyl rubber, BR
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.

Eye protection: Tightly sealed goggles
Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information
Appearance:
Form: Fluid
### 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.
- **10.6 Hazardous decomposition products**: No dangerous decomposition products known.
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: 64-17-5 Ethanol</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td><strong>Inhalative</strong></td>
</tr>
<tr>
<td>LC50/4h</td>
</tr>
</tbody>
</table>

Primary irritant effect:
- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- Serious eye damage/irritation: Causes serious eye irritation.
- 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:

<table>
<thead>
<tr>
<th>CAS: 64-17-5 Ethanol</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EC50</strong></td>
</tr>
<tr>
<td>&gt;6,500 mg/l (bacteria) (Pseudomonas putida / 16 h)</td>
</tr>
<tr>
<td>&gt;9,268 mg/l (daphnia) (Daphnia magna / 48 h)</td>
</tr>
<tr>
<td><strong>LC50</strong></td>
</tr>
<tr>
<td>&gt;100 mg/l (daphnia) (Daphnia magna / 24 h)</td>
</tr>
<tr>
<td>8,140 mg/l (fish) (Leuciscus idus / 48 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 fullfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification.
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 04* other organic solvents, 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, IMDG, IATA
    UN1993

- 14.2 UN proper shipping name
  - ADR/RID/ADN
    1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL)), special provision 640D
  - IMDG
    FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL))
  - IATA
    FLAMMABLE LIQUID, N.O.S. (ETHANOL)

- 14.3 Transport hazard class(es)
  - ADR/RID/ADN, IMDG, IATA
    - Class
      3 Flammable liquids.
    - Label
      3

- 14.4 Packing group
  - ADR/RID/ADN, IMDG, IATA
    II

- 14.5 Environmental hazards:
  - Not applicable.

- 14.6 Special precautions for user
  - Hazard identification number (Kemler code): 33
  - EMS Number: F-E-S-E
  - Stowage Category
    B
  - Warning: Flammable liquids.

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

- Transport/Additional information:
  - ADR/RID/ADN
    - Limited quantities (LQ)
      1L
    - Transport category
      2
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.
- Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- 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.
  - Water hazard 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.

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
  H225 Highly flammable liquid and vapour.
  H319 Causes serious eye irritation.

- 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