1.1 Product identifier
- Trade name: LUBA-print® 301/C
- UFI: HD70-Q047-H00G-Q6XQ

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

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

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

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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

- Signal word Danger

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

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

| CAS: 64-17-5 | Ethanol | Flammable, liq. 2, H223; Eye irrit. 2, H319 | 50-75% |
| CAS: 8002-74-2 | Paraffin waxes and Hydrocarbon waxes | substance with a workplace exposure limit | 20-50% |

**Dangerous components:**

- 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.
7.3 Specific end use(s)

- CAS: 64-17-5 Ethanol

Ensure adequate ventilation.

- No further data; see item 7.

- Do not allow to penetrate the ground/soil.

- Wear protective clothing.

SECTON 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.

- 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.

SECTON 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: |
|--------------------------|-----------------------------|
| CAS: 64-17-5 Ethanol     |                             |
| WEL: Long-term value: 1920 mg/m³, 1000 ppm |
| CAS: 8002-74-2 Paraffin waxes and Hydrocarbon waxes |            |
| WEL: Short-term value: 6 mg/m³ | Long-term value: 2 mg/m³ |

<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 87 mg/kg bw/day (human)</td>
</tr>
<tr>
<td>Oral worker, long-term exposure, systemic effects 343 mg/kg bw/day (human)</td>
</tr>
<tr>
<td>Dermal consumer, long-term exposure, systemic effects 206 mg/kg bw/day (human)</td>
</tr>
<tr>
<td>Dermal worker, long-term exposure, systemic effects 950 mg/m³ (human)</td>
</tr>
<tr>
<td>Inhalative worker, short-term exposure, local effects 1,900 mg/m³ (human)</td>
</tr>
</tbody>
</table>

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

- consumer, long-term exposure, systemic effects: 114 mg/m³ (human)
- consumer, short-term exposure, local effects: 950 mg/m³ (human)

### Additional information

The lists valid during the making were used as basis.

#### 8.2 Exposure controls

- **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:** 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:**
    - **CAS: 64-17-5 Ethanol**
      - **Oral**
        - LD50 3,450 mg/kg (mouse)
        - 7,060 mg/kg (rat)
        - 6,300 mg/kg (rabbit)
      - **Dermal**
        - LD50 >2,000 mg/kg (rat)
      - **Inhalative**
        - LC50/4h 20,000 mg/l (rat)
    - **CAS: 8002-74-2 Paraffin waxes and Hydrocarbon waxes**
      - **Oral**
        - LD50 >5,000 mg/kg (rat)

- **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:**
  - **CAS: 64-17-5 Ethanol**
    - EC50 6,500 mg/l (bacteria) (Pseudomonas putida / 16 h)
    - >9,268 mg/l (daphnia) (Daphnia magna / 48 h)
    - LC50 >100 mg/l (daphnia) (Daphnia magna / 24 h)
    - 8,140 mg/l (fish) (Leuciscus idus / 48 h)

- **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
### 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 UN1170

- **14.2 UN proper shipping name**
  - ADR/RID/ADN 1170 ETHANOL (ETHYL ALCOHOL) mixture
  - IMDG ETHANOL (ETHYL ALCOHOL) mixture
  - IATA ETHANOL mixture

- **14.3 Transport hazard class(es)**
  - ADR/RID/ADN, IMDG, IATA

  - ![Flammable symbol](image)

  - **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**
  - Warning: Flammable liquids.
  - Hazard identification number (Kemler code): 33
  - EMS Number: F-E-S-D
  - Stowage Category A

- **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
    - Tunnel restriction code: D/E
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.
  - Waterhazard class: Water hazard class 1 (German ArwV, 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