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

- **1.1** Product identifier
  - Trade name: LUBA-print® 816/M
  - UFI: NYG1-10A7-Q000M-PKGF

- **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): 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. 3  H226 Flammable liquid and vapour.
    - STOT SE 3  H336 May cause drowsiness or dizziness.

- **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**
  - GHS02
  - GHS07

- **Signal word** Warning

- **Hazard-determining components of labelling:**
  - 1-methoxy-2-propanol

- **Hazard statements**
  - H226 Flammable liquid and vapour.
  - H336 May cause drowsiness or dizziness.

- **Precautionary statements**
  - P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
  - P280 Wear protective gloves/protective clothing/eye protection/face protection.
  - P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
  - P405 Store locked up.
  - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)
**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 dispersion
    Mixture of substances listed below with nonhazardous additions.
  - **Dangerous components:**

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Reg.nr.</th>
<th>1-methoxy-2-propanol</th>
<th>Flam. Liq. 3; H226; STOT SE 3; H336</th>
<th>75-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-98-2</td>
<td>203-539-1</td>
<td>01-2119457435-35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Reg.nr.</th>
<th>Paraffin waxes and Hydrocarbon waxes</th>
<th>Substance with a workplace exposure limit</th>
<th>5-&lt;10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>8002-74-2</td>
<td>232-315-6</td>
<td>01-2119488076-30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Flam. Liq. 3; H226; Repr. 1B; H360D; Eye Dam. 1; H318; Skin Irrit. 2; H315; STOT SE 3; H335</th>
<th>2-methoxypropanol</th>
<th>2-methoxypropanol</th>
<th>5-&lt;10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1589-47-5</td>
<td>216-455-5</td>
<td></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**
  In case of fire, the following can be released:
  - Carbon monoxide (CO)
  - Nitrogen oxides (NOx)
  - 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.
- Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:
- Do not allow to penetrate the ground/soil.
- 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
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

### 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.

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.

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

### SECTION 8: Exposure controls/personal protection

8.1 Control parameters
- No additional information about design of technical facilities: No further data; see item 7.

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

<table>
<thead>
<tr>
<th>CAS:</th>
<th>107-98-2 1-methoxy-2-propanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL</td>
<td>Short-term value: 360 mg/m³, 150 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 375 mg/m³, 100 ppm</td>
</tr>
<tr>
<td>Sk</td>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 4)
Trade name: LUBA-print® 816/M

(Contd. of page 3)

| CAS: 8002-74-2 Paraffin waxes and Hydrocarbon waxes |
|---------------------|---------------------|---------------------|
| WEL                  | Short-term value: 6 mg/m³ |
|                      | Long-term value: 2 mg/m³ |

- **DNELs**

<table>
<thead>
<tr>
<th>CAS: 107-98-2 1-methoxy-2-propanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>Dermal worker, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>Inhalative consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>Dermal worker, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>Inhalative consumer, long-term exposure, systemic effects</td>
</tr>
</tbody>
</table>

- **PNECs**

<table>
<thead>
<tr>
<th>CAS: 107-98-2 1-methoxy-2-propanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>fresh water</td>
</tr>
<tr>
<td>marine water</td>
</tr>
<tr>
<td>soil</td>
</tr>
<tr>
<td>sediment (fresh water)</td>
</tr>
<tr>
<td>sediment (marine water)</td>
</tr>
<tr>
<td>sewage treatment plant</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:**

  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

(Contd. on page 5)
**SECTION 9: Physical and chemical properties**

- **General Information**
  - **Form:** Fluid
  - **Colour:** White
  - **Odour:** Specific type
  - **Odour threshold:** Not determined.
  - **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/freeze point:** Undetermined.
  - **Initial boiling point and boiling range:** \( \approx 120 \, ^\circ C \) (1-methoxy-2-propanol)

- **Flash point:** \( \approx 32 \, ^\circ C \) (DIN EN ISO 2719)

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

- **Ignition temperature:** \( \approx 290 \, ^\circ C \) (1-methoxy-2-propanol)

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not self-igniting.

- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**
  - **Lower:** \( \approx 1.48 \text{ Vol } \% \text{ (1-methoxy-2-propanol)} \)
  - **Upper:** \( \approx 13.7 \text{ Vol } \% \text{ (1-methoxy-2-propanol)} \)

- **Oxidising properties:** None.

- **Vapour pressure at 50 °C:** 64 hPa (1-methoxy-2-propanol)

- **Density at 20 °C:** \( \approx 0.92 \text{ g/cm}^3 \) (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:** \( \approx 12 \text{ mPas (DIN EN ISO 3219)} \)
  - **Kinematic:** Not determined.

- **Solvent separation test:** Not determined

- **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 and stored 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.

<table>
<thead>
<tr>
<th>CAS: 107-98-2 1-methoxy-2-propanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>Inhalative LC50/4h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 8002-74-2 Paraffin waxes and Hydrocarbon waxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
</tr>
</tbody>
</table>

· Primary irritant effect:
· Skin corrosion/irritation Based on available data, the classification criteria are not met.
· Serious eye damage/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
  May cause drowsiness or dizziness.
· 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

<table>
<thead>
<tr>
<th>CAS: 107-98-2 1-methoxy-2-propanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
</tr>
<tr>
<td>&gt;1,000 mg/l (fish) (Oncorhynchus mykiss / 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.
· Ecotoxical 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

(Contd. of page 7)
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.

- **12.6 Other adverse effects** No further relevant information available.

### 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.

<table>
<thead>
<tr>
<th>European waste catalogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>07 07 04* other organic solvents, washing liquids and mother liquors</td>
</tr>
</tbody>
</table>

- **Uncleaned packaging**
  - **Recommendation**: Disposal must be made according to official regulations.
  - **Recommended cleaning 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. (1-METHOXY-2-PROpanol)
  - IMDG, IATA
  - FLAMMABLE LIQUID, N.O.S. (1-METHOXY-2-PROpanol)

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

<table>
<thead>
<tr>
<th>Class</th>
<th>3 Flammable liquids.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>3</td>
</tr>
</tbody>
</table>

- **14.4 Packing group**
  - ADR/RID/ADN, IMDG, IATA
  - III

- **14.5 Environmental hazards**
  - Not applicable.

- **14.6 Special precautions for users**
  - **Warning**: Flammable liquids.
  - **Hazard identification number (Kemler code)**: 30
  - **EMS Number**: F-E.S-E
  - **Stowage Category**: A

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
  - Not applicable.
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
  H226 Flammable liquid and vapour.
  H315 Causes skin irritation.
  H318 Causes serious eye damage.
  H335 May cause respiratory irritation.
  H336 May cause drowsiness or dizziness.
  H360D May damage the unborn child.

- 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
Trade name: LUBA-print® 816/M

PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Repr. 1B: Reproductive toxicity – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3