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

1.1 Product identifier

- Trade name: LUBA-print® 693/M
- UFI: 81R0-TORG-800J-3C0F

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
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

Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.

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

  GHS07

Signal word Warning

Hazard-determining components of labelling:
Ethylene glycol monobutyl ether

Hazard statements
H302 + H332 Harmful if swallowed or if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves / eye protection / face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Fluorophosgene (COF)

Reg.nr.: 01-2119475108-36

None.

4.3 Indication of any immediate medical attention and special treatment needed

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

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

| CAS: 111-76-2 | Ethylene glycol monobutyl ether | Acute Tox. 4; H302; Acute Tox. 4; H312; Acute Tox. 4; H332; Skin Irrit. 2; H315; Eye Irrit. 2; H319 | 75-100% |
| EINECS: 203-905-0 | Reg.nr.: 01-2119475108-36 |

| CAS: 8002-74-2 | Paraffin waxes and Hydrocarbon waxes | substance with a workplace exposure limit | 5-%<10% |
| EINECS: 232-315-6 | Reg.nr.: 01-2119488076-30 |

· 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.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· 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:

Hydrogen fluoride (HF)

Fluorophosgene (COF₂)

Can form explosive gas-air mixtures.

5.3 Advice for firefighters

· Protective equipment: Do not inhale explosion gases or combustion gases.
Trade name: LUBA-print® 693/M

(Contd. of page 2)

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.

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).
- Dispose contaminated material as waste according to item 13.
- 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.
- 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.
- 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

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

<table>
<thead>
<tr>
<th>CAS: 111-76-2 Ethylene glycol monobutyl ether</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL: Short-term value: 246 mg/m³, 50 ppm</td>
</tr>
<tr>
<td>Long-term value: 123 mg/m³, 25 ppm</td>
</tr>
<tr>
<td>Sk, BMGV</td>
</tr>
</tbody>
</table>

(Contd. on page 4)
### Safety data sheet

**according to 1907/2006/EC, Article 31**

**Printing date 21.01.2020**

**Trade name:** LUBA-print® 693/M

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**CAS: 8002-74-2 Paraffin waxes and Hydrocarbon waxes**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Short-term value</th>
<th>Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL</td>
<td>6 mg/m³</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

**DNELs**

<table>
<thead>
<tr>
<th>CAS: 111-76-2 Ethylene glycol monobutyl ether</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral worker, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>Dermal worker, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>Inhalative worker, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>worker, short-term exposure, local effects</td>
</tr>
<tr>
<td>consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td>consumer, short-term exposure, local effects</td>
</tr>
</tbody>
</table>

**PNECs**

<table>
<thead>
<tr>
<th>CAS: 111-76-2 Ethylene glycol monobutyl ether</th>
</tr>
</thead>
<tbody>
<tr>
<td>fresh water</td>
</tr>
<tr>
<td>marine water</td>
</tr>
<tr>
<td>aqua - intermittent release</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>

**Ingredients with biological limit values:**

<table>
<thead>
<tr>
<th>CAS: 111-76-2 Ethylene glycol monobutyl ether</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGV</td>
</tr>
<tr>
<td>Medium: urine</td>
</tr>
<tr>
<td>Sampling time: post shift</td>
</tr>
<tr>
<td>Parameter: butoxyacetic acid</td>
</tr>
</tbody>
</table>

---

**Personal protective equipment:**

**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 use.
**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:** Not determined.

- **Change in condition**
  - **Melting point/freezing point:** Undetermined.
  - **Initial boiling point and boiling range:** ≈ 170 °C (2-butoxyethanol)

- **Flash point:** ≈ 67 °C (DIN EN ISO 2719)

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

- **Ignition temperature:** ≈ 240 °C (2-butoxyethanol)

- **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:** ≈ 1.1 Vol % (2-butoxyethanol)
  - **Upper:** ≈ 10.6 Vol % (2-butoxyethanol)

- **Oxidising properties:** None.

- **Vapour pressure at 20 °C:** ≈ 1.2 hPa (2-butoxyethanol)

- **Density at 20 °C:** ≈ 0.95 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:** ≈ 82 mPas (DIN EN ISO 3219)

- **Kinematic:** Not determined.
SECTION 10: Stability and reactivity

10.1 Reactivity: No further relevant information available.

10.2 Chemical stability

10.3 Thermal decomposition / conditions to be avoided:
No decomposition if used and stored according to specifications.

10.4 Possibility of hazardous reactions: No dangerous reactions known.

10.5 Conditions to avoid: No further relevant information available.

10.6 Incompatible materials: No further relevant information available.

10.7 Hazardous decomposition products:
Possible in traces.
Hydrogen fluoride
Fluorophosgene
Carbonyl fluoride
Hexafluoropropylene
Tetrafluorethylene
Perfluorisobutylene

Additional information:
When heated, gaseous decomposition products may be generated from PTFE, which can cause "fluoropolymer fever" on inhalation. Inhalation/eye contact: in high concentrations irritating to the mucous membranes, narcotic effect and influence on power of reaction and loss of coordination possible. Prolonged inhalation of vapours in high concentrations may lead to headache, giddiness and nausea.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Harmful if swallowed or if inhaled.

LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>CAS: 111-76-2 Ethylene glycol monobutyl ether</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
</tbody>
</table>

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

Primary irritant effect:
Skin corrosion/irritation
Causes skin irritation.

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.

(Contd. on page 7)
SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

CAS: 111-76-2 Ethylene glycol monobutyl ether

- EC50 (static) 1.840 mg/l (alga) (Pseudokirchneriella subcapitata / 72 h (OECD 201))
- 1.550 mg/l (daphnia) (Daphnia magna / 48 h (OECD 202))
- LC50 (static) 1.474 mg/l (fish) (Oncorhynchus mykiss / 96 h (OECD 203))
- NOEC 100 mg/l (daphnia) (Daphnia magna / 21 d (OECD 211))
- >100 mg/l (fish) (Brachydanio rerio (OECD 204))

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:

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 cleaning agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

14.1 UN-Number

ADR/RID/ADN, ADN, IMDG, IATA: Void
### Trade name: **LUBA-print® 693/M**

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>14.2 UN proper shipping name</strong></td>
<td>· ADR/RID/ADN, ADN, IMDG, IATA: Void</td>
</tr>
<tr>
<td><strong>14.3 Transport hazard class(es)</strong></td>
<td>· ADR/RID/ADN, ADN, IMDG, IATA: Void</td>
</tr>
<tr>
<td><strong>14.4 Packing group</strong></td>
<td>· ADR/RID/ADN, IMDG, IATA: Void</td>
</tr>
<tr>
<td><strong>14.5 Environmental hazards:</strong></td>
<td>· Marine pollutant: No</td>
</tr>
<tr>
<td><strong>14.6 Special precautions for user</strong></td>
<td>· Not applicable.</td>
</tr>
<tr>
<td><strong>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</strong></td>
<td>· Not applicable.</td>
</tr>
<tr>
<td><strong>Transport/Additional information:</strong></td>
<td>· Not a dangerous good to the above specifications.</td>
</tr>
<tr>
<td><strong>UN &quot;Model Regulation&quot;:</strong></td>
<td>· Void</td>
</tr>
</tbody>
</table>

### 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.
  - Water hazard class: Water hazard class 1 (German AwaSV, 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**
  - H302 Harmful if swallowed.
  - H312 Harmful in contact with skin.
  - H315 Causes skin irritation.
  - H319 Causes serious eye irritation.
  - 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

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Trade name: LUBA-print® 693/M

GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEIL: 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
Acute Tox. 4: Acute toxicity - oral – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

(Contd. of page 8)