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

1.1 Product identifier

- Trade name: LUBA-print® 715/A
- UFI: U5E0-M0CU-T00N-T801

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
  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): 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

- Flam. Liq. 3 H226 Flammable liquid and vapour.
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Dam. 1 H318 Causes serious eye damage.
- STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
- STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
- Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

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

- Signal word: Danger

- Hazard-determining components of labelling:
  xylene
  2-methylpropan-1-ol
  n-butyl acetate
  ethylbenzene

- Hazard statements:
  H226 Flammable liquid and vapour.
  H315 Causes skin irritation.
  H318 Causes serious eye damage.
  H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
  H373 May cause damage to organs through prolonged or repeated exposure.
  H304 May be fatal if swallowed and enters airways.

(Contd. on page 2)
In case of unconsciousness place patient stably in side position for transportation.

SECTION 3: Composition/information on ingredients

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

<table>
<thead>
<tr>
<th>CAS:</th>
<th>EINECS:</th>
<th>Reg.nr.:</th>
<th>Hazard Statement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>123-86-4</td>
<td>204-658-1</td>
<td>01-2119485493-29</td>
<td>n-butyl acetate</td>
<td>20-50%</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>215-535-7</td>
<td>01-2119488216-32</td>
<td>xylene</td>
<td>20-50%</td>
</tr>
<tr>
<td>400-41-4</td>
<td>202-849-4</td>
<td>01-2119489370-33</td>
<td>ethylbenzene</td>
<td>5-&lt;10%</td>
</tr>
<tr>
<td>78-83-1</td>
<td>201-148-0</td>
<td>01-2119484609-23</td>
<td>2-methylpropan-1-ol</td>
<td>5-&lt;10%</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:
    - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
    - 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.
 Wear protective equipment. Keep unprotected persons away.
· 6.2 Environmental precautions:
 Do not allow to penetrate the ground/soil.
 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.
 Do not flush with water or aqueous cleansing agents
· 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.
Safety data sheet  
according to 1907/2006/EC, Article 31

Printing date 21.01.2020  
Version number 2  

Trade name: LUBA-print® 715/A

Avoid contact with the eyes and skin.

8.2 Exposure controls

· PNECs

**CAS: 78-83-1 2-methylpropan-1-ol**

<table>
<thead>
<tr>
<th>Exposure &amp; Environment</th>
<th>Concentration</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral consumer, long-term exposure, systemic effects</td>
<td>25 mg/kg bw/day (human)</td>
<td></td>
</tr>
<tr>
<td>Inhalative worker, long-term exposure, systemic effects</td>
<td>310 mg/m³ (human)</td>
<td></td>
</tr>
<tr>
<td>Consumer, short-term exposure, systemic effects</td>
<td>55 mg/m³ (human)</td>
<td></td>
</tr>
</tbody>
</table>

**CAS: 123-86-4 n-butyl acetate**

<table>
<thead>
<tr>
<th>Exposure &amp; Environment</th>
<th>Concentration</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh water</td>
<td>0.18 mg/l (not specified)</td>
<td></td>
</tr>
<tr>
<td>Marine water</td>
<td>0.018 mg/l (not specified)</td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td>0.0903 mg/kg (not specified)</td>
<td></td>
</tr>
<tr>
<td>Sediment (fresh water)</td>
<td>0.981 mg/kg (not specified)</td>
<td></td>
</tr>
<tr>
<td>Sediment (marine water)</td>
<td>0.0981 mg/kg (not specified)</td>
<td></td>
</tr>
<tr>
<td>Sewage treatment plant</td>
<td>35.6 mg/l (not specified)</td>
<td></td>
</tr>
</tbody>
</table>

**CAS: 1330-20-7 xylene**

<table>
<thead>
<tr>
<th>Exposure &amp; Environment</th>
<th>Concentration</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh water</td>
<td>0.327 mg/l (not specified)</td>
<td></td>
</tr>
<tr>
<td>Marine water</td>
<td>0.327 mg/l (not specified)</td>
<td></td>
</tr>
<tr>
<td>Aqua - intermittent release</td>
<td>0.327 mg/l (not specified)</td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td>2.31 mg/kg (not specified)</td>
<td></td>
</tr>
<tr>
<td>Sediment (fresh water)</td>
<td>12.46 mg/kg (not specified)</td>
<td></td>
</tr>
<tr>
<td>Sediment (marine water)</td>
<td>12.46 mg/kg (not specified)</td>
<td></td>
</tr>
<tr>
<td>Sewage treatment plant</td>
<td>6.58 mg/l (not specified)</td>
<td></td>
</tr>
</tbody>
</table>

**CAS: 78-83-1 2-methylpropan-1-ol**

<table>
<thead>
<tr>
<th>Exposure &amp; Environment</th>
<th>Concentration</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh water</td>
<td>0.4 mg/l (not specified)</td>
<td></td>
</tr>
<tr>
<td>Marine water</td>
<td>0.04 mg/l (not specified)</td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td>0.0699 mg/kg (not specified)</td>
<td></td>
</tr>
<tr>
<td>Sediment (fresh water)</td>
<td>1.52 mg/kg (not specified)</td>
<td></td>
</tr>
<tr>
<td>Sediment (marine water)</td>
<td>0.152 mg/kg (not specified)</td>
<td></td>
</tr>
<tr>
<td>Sewage treatment plant</td>
<td>10 mg/l (not specified)</td>
<td></td>
</tr>
</tbody>
</table>

- **Ingredients with biological limit values:**

**CAS: 1330-20-7 xylene**

| BMDV | 650 mmol/mol creatinine | Medium: urine | Sampling time: post shift | Parameter: methyl hippuric acid |

- **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.

(Contd. on page 6)
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
Colour: Whitish
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: ≈ 107 °C (2-methylpropan-1-ol)

Flash point: ≈ 25 °C (DIN EN ISO 2719)

Flammability (solid, gas): Not applicable.

Ignition temperature: ≈ 390 °C (n-butylacetate)

Decomposition temperature: Not determined.

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

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

Explosion limits:
Lower: ≈ 1 Vol % (xylene)
Upper: ≈ 7.5 Vol % (n-butylacetate)

Oxidising properties None.
### 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**

Flammable vapour-air mixtures may develop if stored in large receptacles and above room temperature.

**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: 123-86-4 n-butyl acetate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
<td><strong>LD50</strong> 13,100 mg/kg (rat)</td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td><strong>LD50</strong> 14,100 mg/kg (rabbit)</td>
</tr>
<tr>
<td><strong>Inhalative</strong></td>
<td><strong>LC50/4h</strong> &gt;21 mg/l (rabbit)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 1330-20-7 xylene</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
<td><strong>LD50</strong> 4,300 mg/kg (rat)</td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td><strong>LD50</strong> 2,000 mg/kg (rabbit)</td>
</tr>
<tr>
<td><strong>Inhalative</strong></td>
<td><strong>LC50/4h</strong> 11 mg/l (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 100-41-4 ethylbenzene</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
<td><strong>LD50</strong> 3,500 mg/kg (rat)</td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td><strong>LD50</strong> 17,800 mg/kg (rabbit)</td>
</tr>
<tr>
<td><strong>Inhalative</strong></td>
<td><strong>LC50/4h</strong> 17.2 mg/l (rat)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 78-83-1 2-methylpropan-1-ol</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
<td><strong>LD50</strong> 2,460 mg/kg (rat)</td>
</tr>
</tbody>
</table>

(Contd. of page 8)
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: LUBA-print® 715/A

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>LD50</th>
<th>LC50/4h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>2,460 mg/kg (rabbit) (OECD 402)</td>
<td>24.6 mg/l (rat)</td>
</tr>
<tr>
<td>Inhalative</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **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**
  - May cause respiratory irritation. May cause drowsiness or dizziness.

- **STOT-repeated exposure**
  - May cause damage to organs through prolonged or repeated exposure.

- **Aspiration hazard**
  - May be fatal if swallowed and enters airways.

---

**SECTION 12: Ecological information**

- **12.1 Toxicity**

  - **Aquatic toxicity:**

    - **CAS: 123-86-4 n-butyl acetate**
      - EC50: 647.7 mg/l (alga) (green alga / 72 h)
      - LC50: 44 mg/l (daphnia) (Daphnia magna / 48 h)
      - IC50: 18 mg/l (fish) (Pimephales promelas / 96 h)
      - IC50: 356 mg/l (bacteria) (Tetrahymena / 40 h)
      - NOEC: 200 mg/l (alga) (green alga)

    - **CAS: 1330-20-7 xylene**
      - EC50: 2.2 mg/l (alga) (Pseudokirchneriella subcapitata / 72 h)
      - LC50: 2.6 mg/l (fish) (Oncorhynchus mykiss / 96 h)
      - IC50: 1 mg/l (daphnia) (Daphnia magna / 24 h)
      - NOEC: 0.44 mg/l (alga) (Pseudokirchneriella subcapitata / 72 h)
      - NOEC: 157 mg/l (bacteria) (activated sludge)
      - NOEC: >1.3 mg/l (fish) (Oncorhynchus mykiss / 56 d)

    - **CAS: 100-41-4 ethylbenzene**
      - EC50 (static): 5.4 mg/l (alga) (Pseudokirchneriella subcapitata / 72 h)
      - LC50: >12 mg/l (bacteria) (bacteria / 16 h)
      - IC50: 2.4 mg/l (daphnia) (Daphnia magna / 48 h)
      - NOEC: 12.1 mg/l (fish) (Pimephales promelas / 96 h)
      - NOEC: 3.4 mg/l (alga) (Pseudokirchneriella subcapitata / 72 h)

    - **CAS: 78-83-1 2-methylpropan-1-ol**
      - EC50: 1,250 mg/l (alga) (green alga / 48 h)
      - EC10: 1,030 mg/l (daphnia) (Daphnia magna / 48 h)
      - EC50: 750 mg/l (bacteria) (Pseudomonas putida / 16 h)
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: LUBA-print® 715/A

LC50 1.430 mg/l (fish) (Pimephales promelas / 96 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 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.
    - 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 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. (BUTYL ACETATES, XYLENES)
  - IMDG, IATA: FLAMMABLE LIQUID, N.O.S. (BUTYL ACETATES, XYLENES)

- 14.3 Transport hazard class(es)
  - ADR/RID/ADN, IMDG, IATA:
    - Class: 3 Flammable liquids.
    - Label: 3
 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 2 (Self-assessment): hazardous for water.
· Other regulations, limitations and prohibitive regulations
The restrictions in marketing and using of nonylphenol ethoxylates mentioned in REACH, Annex XVII and the regulation 689/2008/EC concerning the export and import of dangerous chemicals have to be observed.
· 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.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.

**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
eVP/eB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity - dermal – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1

* Data compared to the previous version altered.