Safety data sheet
according to 1907/2006/EC, Article 31

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

1.1 Product identifier
- Trade name: LUBA-print® 501/S (ND)
- UFI: SH01-X02S-K00J-K4PU

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
  STOT SE 3    H336 May cause drowsiness or dizziness.
  Aquatic Chronic 2    H411 Toxic to aquatic life with long lasting effects.

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    GHS09

- Signal word Warning

- Hazard-determining components of labelling:
  Hydrocarbons, C10, aromatics, <1% naphthalene

- Hazard statements
  H336 May cause drowsiness or dizziness.
  H411 Toxic to aquatic life with long lasting effects.

- Precautionary statements
  P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
  P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  P312 Call a POISON CENTER/doctor if you feel unwell.
  P403+P233 Store in a well-ventilated place. Keep container tightly closed.
  P405 Store locked up.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

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Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2020
Version number 1
Revision: 13.06.2016

Trade name: LUBA-print® 501/S (ND)

· vPoB: None.

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SECTION 3: Composition/information on ingredients

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

<table>
<thead>
<tr>
<th>Dangerous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EC number: 918-811-1</td>
<td>Hydrocarbons, C10, aromatics, &lt;1% naphthalene</td>
</tr>
<tr>
<td>Reg.nr.: 01-2119463583-34</td>
<td>Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336</td>
</tr>
<tr>
<td>CAS: 91-20-3</td>
<td>75-100%</td>
</tr>
<tr>
<td>EINECS: 202-049-5</td>
<td>naphthalene</td>
</tr>
<tr>
<td></td>
<td>Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302</td>
</tr>
</tbody>
</table>

· Additional information: For the wording of the listed hazard phrases refer to section 16.

(Contd. on page 3)

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
    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.

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Trade name: LUBA-print® 501/S (ND)

6.2 Environmental precautions:
Do not allow to penetrate the ground/soil.
Inform respective authorities in case of seepage into water course or sewage system.
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).
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

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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
Recommended thickness of the material: 0.5 mm

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 not determined.

Initial boiling point and boiling range:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting/freezing point</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Boiling point and boiling range</td>
<td>≈183 °C (solvent naphtha (heavy))</td>
</tr>
<tr>
<td>Flash point</td>
<td>≈61 °C (DIN EN ISO 2719)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>&gt; 400 °C (solvent naphtha (heavy))</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Product is not self-igniting</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Product is not explosive. However, formation of explosive air/vapour mixtures are possible.</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>≈0.6 Vol % (solvent naphtha (heavy))</td>
</tr>
</tbody>
</table>
May cause drowsiness or dizziness. 

Based on available data, the classification criteria are not met.

No decomposition if used according to specifications.

Safety data sheet

Evaporation rate

10.2 Chemical stability

Dermal LD50 >2,000 mg/kg (rabbit) (OECD 402)

Primary irritant effect:

Carcinogenicity

30 mm²/s (DIN EN ISO 51562)

LD/LC50 values relevant for classification:

Hydrocarbons, C10, aromatics, <1% naphthalene

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>6,318 mg/kg (rat) (OECD 401)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;2,000 mg/kg (rabbit) (OECD 402)</td>
<td></td>
</tr>
</tbody>
</table>

CAS: 91-20-3 naphthalene

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>490 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>5,000 mg/kg (rat)</td>
<td></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.
SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

<table>
<thead>
<tr>
<th>Hydrocarbons, C10, aromatics, &lt;1% naphthalene</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LL50 2-5 mg/l (fish) (Oncorhynchus aquabonita / 96 h)</td>
<td></td>
</tr>
<tr>
<td>EL50 1-3 mg/l (algae) (green alga / 72 h)</td>
<td></td>
</tr>
<tr>
<td>3-10 mg/l (daphnia) (Daphnia magna / 48 h)</td>
<td></td>
</tr>
<tr>
<td>NOELR 0.771 mg/l (daphnia) (Daphnia magna / 21 days)</td>
<td></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:

Remark: Toxic for fish

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.

Toxic for aquatic organisms

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.

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 UN3082
Trade name: LUBA-print® 501/S (ND)

14.2 UN proper shipping name

- **ADR/RID/ADN**: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10, aromatics, <1% naphthalene)
- **IMDG**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10, aromatics, <1% naphthalene, NAPHTHALENE, CRUDE), MARINE POLLUTANT
- **IATA**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10, aromatics, <1% naphthalene)

14.3 Transport hazard class(es)

- **ADR/RID/ADN, IMDG, IATA**

  - **Class**: 9 Miscellaneous dangerous substances and articles.
  - **Label**: 9

14.4 Packing group

- **ADR/RID/ADN, IMDG, IATA**: III

14.5 Environmental hazards: Product contains environmentally hazardous substances: Hydrocarbons, C10, aromatics, <1% naphthalene

- **Marine pollutant**: Symbol (fish and tree)
- **Special marking (ADR/RID/ADN)**: Symbol (fish and tree)
- **Special marking (IATA)**: Symbol (fish and tree)

14.6 Special precautions for user Warning: Miscellaneous dangerous substances and articles.

- **Hazard identification number (Kemler code)**: 90
- **EMS Number**: F-A,S-F
- **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)**: 5L
  - **Transport category**: 3
  - **Tunnel restriction code**: -

- **UN "Model Regulation"**: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE), 9, III

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.
Trade name: LUBA-print® 501/S (ND)

- Seveso category: E2 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements: 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements: 500 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.
  - 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.
  H304 May be fatal if swallowed and enters airways.
  H336 May cause drowsiness or dizziness.
  H351 Suspected of causing cancer.
  H400 Very toxic to aquatic life.
  H410 Very toxic to aquatic life with long lasting effects.
  H411 Toxic to aquatic life with long lasting effects.

- 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)
  LD50: Lethal dose, 50 percent
  LC50: Lethal concentration, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Acute Tox. 4: Acute toxicity - oral – Category 4
  Carc. 2: Carcinogenicity – Category 2
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
  Asp. Tox. 1: Aspiration hazard – Category 1
  Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
  Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
  Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2