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

1.1 Product identifier
- Trade name: LUBA-print® 459/H-2
- UFI: KGP0-Q0AA-R00N-66H9

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
  Münzingstrasse 2
  74232 Abstatt, Germany
  E-Mail: info@munzing.com
  Tel.: +49 7131 987-100

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.
  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

![GHS02](image)
![GHS09](image)

- Signal word Warning
- Hazard statements
  H226 Flammable liquid and vapour.
  H411 Toxic to aquatic life with long lasting effects.

- Precautionary statements
  P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  P240 Ground and bond container and receiving equipment.
  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].
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Additional information:
  EUH066 Repeated exposure may cause skin dryness or cracking.
  Contains Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1), 1,2-benzoisothiazol-3(2H)-one. May produce an allergic reaction.

(Contd. on page 2)
Trade name: LUBA-print® 459/H-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: Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>EC number: 923-037-2</th>
<th>Reg.nr.: 01-2119471991-29</th>
<th>Hydrocarbons, C10-C12, isoalkanes, &lt;2% aromatics</th>
<th>50-75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 8002-74-2</td>
<td>EINECS: 232-315-6</td>
<td>Flam. Liq. 3; H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411</td>
<td></td>
</tr>
<tr>
<td>CAS: 9004-98-2</td>
<td>EINECS: 02-009-825</td>
<td>Paraffin waxes and Hydrocarbon waxes substance with a workplace exposure limit</td>
<td>20-50%</td>
</tr>
<tr>
<td>CAS: 3811-73-2</td>
<td>EINECS: 223-296-5</td>
<td>Fatty alcohol polyglycol ether (polymer) Aquatic Chronic 1, H410; Skin Irrit. 2, H315</td>
<td>1-3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pyridine-2-thiol 1-oxide, sodium salt Aquatic Acute 1, H400 (M=100); Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2, H319</td>
<td>&lt;0.05%</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 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.
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.
  Inform respective authorities in case of seepage into water course or sewage system.
  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.

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

  WEL: Short-term value: 6 mg/m³
  Long-term value: 2 mg/m³

- Additional information: The lists valid during the making were used as basis.


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(Contd. of page 3)

- **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

- **Body protection:**
  Protective work clothing

### SECTION 9: Physical and chemical properties

(Contd. on page 5)

<table>
<thead>
<tr>
<th><strong>9.1 Information on basic physical and chemical properties</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Information</strong></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
</tr>
<tr>
<td>- <strong>Form:</strong> Pasty</td>
</tr>
<tr>
<td>- <strong>Colour:</strong> White</td>
</tr>
<tr>
<td>- <strong>Odour:</strong> Specific type</td>
</tr>
<tr>
<td>- <strong>Odour threshold:</strong> Not determined.</td>
</tr>
<tr>
<td><strong>pH-value:</strong> Not determined.</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
</tr>
<tr>
<td>- <strong>Melting point/freezing point:</strong> Undetermined.</td>
</tr>
<tr>
<td>- <strong>Initial boiling point and boiling range:</strong> ≈ 100 °C (water)</td>
</tr>
<tr>
<td>- <strong>Flash point:</strong> ≈ 47 °C (ASTM D 6450)</td>
</tr>
<tr>
<td>- <strong>Flammability (solid, gas):</strong> Not applicable.</td>
</tr>
<tr>
<td>- <strong>Ignition temperature:</strong> &gt; 200 °C (alkanes, C10-12-iso-)</td>
</tr>
<tr>
<td>- <strong>Decomposition temperature:</strong> Not determined.</td>
</tr>
</tbody>
</table>
Safety data sheet
according to 1907/2006/EC, Article 31

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- Auto-ignition temperature: Product is not selfigniting.
- Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- Explosion limits:
  - Lower: \( \approx 0.6 \text{ Vol\%} \) (alkanes, C10-12-iso-)
  - Upper: \( \approx 7.0 \text{ Vol\%} \) (alkanes, C10-12-iso-)
- Oxidising properties: None.
- Vapour pressure: Not determined.
- Density at 20 °C: \( \approx 0.81 \text{ g/cm}^3 \) (DIN 53217)
- 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: Not determined.
  - Kinematic: Not determined.
- Solvent separation test: Not determined
- Solvent content:
  - Water: \( \approx 15 \% \)
- 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 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:
  - Hydrocarbons, C10-C12, isoalkanes, <2% aromatics
    - Oral LD50 \( \approx 5,000 \text{ mg/kg} \) (rat) (OECD 401)
    - Dermal LD50 \( \approx 5,000 \text{ mg/kg} \) (rabbit) (OECD 402)
  - CAS: 8002-74-2 Paraffin waxes and Hydrocarbon waxes
    - Oral LD50 \( \approx 5,000 \text{ mg/kg} \) (rat)
- Primary irritant effect:
- Skin corrosion/irritation: Based on available data, the classification criteria are not met.

(Contd. on page 6)
12.6 Other adverse effects

Recommendation:

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.
**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. (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics), ENVIRONMENTALLY HAZARDOUS
  - IMDG: FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics, pyridine-2-thiol 1-oxide, sodium salt), MARINE POLLUTANT
  - IATA: FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C10-C12, isoalkanes, <2% aromatics)

- **14.3 Transport hazard class(es)**
  - ADR/RID/ADN, IMDG
    - **Class**: 3 Flammable liquids.
    - **Label**: 3

- **IATA**
  - **Class**: 3 Flammable liquids.
  - **Label**: 3

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

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

- **14.6 Special precautions for user**
  - **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.

- **Transport/Additional information:**
  - **ADR/RID/ADN**
    - **Limited quantities (LQ):** 5L
    - **Transport category:** 3

(Contd. of page 8)
Abbreviations and acronyms:

- 500 t
- H400 Very toxic to aquatic life.
- D/E
- AROMATICS), 3, III, ENVIRONMENTALLY HAZARDOUS
- EINECS: European Inventory of Existing Commercial Chemical Substances
- UN 1993 FLAMMABLE LIQUID, N.O.S. (HYDROCARBONS, C10-C12, ISOALKANES, <2% AROMATICS), 3, III, ENVIRONMENTALLY HAZARDOUS
- Tunnel restriction code
- UN "Model Regulation":
  - D/E
  - UN 1993 FLAMMABLE LIQUID, N.O.S.
  - (HYDROCARBONS, C10-C12, ISOALKANES, <2% AROMATICS), 3, III, ENVIRONMENTALLY HAZARDOUS

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
    - E2 Hazardous to the Aquatic Environment
    - P3c FLAMMABLE LIQUIDS
  - 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.
    - Waterhazard 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
  - H226 Flammable liquid and vapour.
  - H302 Harmful if swallowed.
  - H304 May be fatal if swallowed and enters airways.
  - H315 Causes skin irritation.
  - H319 Causes serious eye irritation.
  - H332 Harmful if inhaled.
  - 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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2020
Version number 2
Revision: 08.01.2020

Trade name: LUBA-print® 459/H-2

vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
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
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

* Data compared to the previous version altered.