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

1.1 Product identifier
- Trade name: LUBA-print® 266/D
- UFI: 8690-A0MJ-X00V-MD62

1.2 Relevant identified uses of the substance or mixture and uses advised against
- 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

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. 2  H225  Highly flammable liquid and vapour.
  Eye Irrit. 2  H319  Causes serious eye irritation.
  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](image)
  ![GHS07](image)

- Signal word: Danger
- Hazard-determining components of labelling:
  Propan-2-ol
- Hazard statements
  H225  Highly flammable liquid and vapour.
  H319  Causes serious eye irritation.
  H336  May cause drowsiness or dizziness.
- Precautionary statements
  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].
  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P405  Store locked up.
  P501  Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)
Fluorophosgene (COF)

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.
· Additional information
  Cool endangered receptacles with water spray.
  Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

(Contd. of page 1)

SECTION 3: Composition/information on ingredients

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

| EINECS: 200-661-7 |
| Reg.nr.: 01-2119457568-25 |
| 50-75% |
· Additional information: For the wording of the listed hazard phrases refer to section 16.

(Contd. of page 1)

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.

(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.
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).
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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

- Additional information about design of technical facilities: No further data; see item 7.

- Ingredients with limit values that require monitoring at the workplace:
  - CAS: 67-63-0 Propan-2-ol
    - WEL: Short-term value: 1250 mg/m³, 500 ppm
      Long-term value: 999 mg/m³, 400 ppm
    - DNELs
      - Oral consumer, long-term exposure, systemic effects: 26 mg/kg bw/day (human)
        worker, long-term exposure, systemic effects: 888 mg/kg bw/day (human)
      - Dermal consumer, long-term exposure, systemic effects: 319 mg/kg bw/day (human)
Recommended thickness of the material:

- PNECs
  - CAS: 67-63-0 Propan-2-ol
    - fresh water: 140.9 mg/l (not specified)
    - marine water: 140.9 mg/l (not specified)
    - soil: 28 mg/kg (not specified)
    - sediment (fresh water): 552 mg/kg (not specified)
    - sediment (marine water): 552 mg/kg (not specified)

- 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
  - 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: Grey
      - Odour: Alcohol-like
9.2 Other information

- Odour threshold: Not determined.
- pH-value: Not determined.
- Change in condition
  - Melting point/freezing point: Undetermined.
  - Initial boiling point and boiling range: ≈ 82 °C (propan-2-ol)
- Flash point: ≈ 13 °C (DIN EN ISO 2719)
- Flammability (solid, gas): Not applicable.
- Ignition temperature: ≈ 425 °C (propan-2-ol)
- Decomposition temperature: Not determined.
- Auto-ignition temperature: Product is not selfigniting.
- Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures is possible.
- Explosion limits:
  - Lower: ≈ 2 Vol % (propan-2-ol)
  - Upper: ≈ 12 Vol % (propan-2-ol)
- Oxidising properties: None.
- Vapour pressure at 20 °C: ≈ 48 hPa (propan-2-ol)
- Density at 20 °C: ≈ 0.97 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: ≈ 32 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:
  Hydrogen fluoride
  Fluorophosphogene
  Carbonyl fluoride
  Tetrafluorethylene
  Perfluorisobutylene

(Contd. of page 4)
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: Based on available data, the classification criteria are not met.
- LD/LC50 values relevant for classification:
  | CAS: 67-63-0 Propan-2-ol |
  | Oral | LD50 | 3,280 mg/kg (rat) |
  | Dermal | LD50 | 12,800 mg/kg (rabbit) |
  | Inhalative | LC50/4h | 30 mg/l (rat) |
- Primary irritant effect:
  - Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- 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): Based on available data, the classification criteria are not met.
- 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
- Aquatic toxicity:
  | CAS: 67-63-0 Propan-2-ol |
  | EC50 | >1,000 mg/l (alga) (Scenedesmus subspicatus / 72 h) |
  | | 13,299 mg/l (daphnia) (Daphnia Magna / 48 h) |
  | EC10 | 5,175 mg/l (bacteria) (Pseudomonas putida / 18 h) |
  | LC50 | 9,640 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 1 (German Regulation) (Self-assessment): slightly hazardous for water
      - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Trade name: LUBA-print® 266/D

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
UN1219

14.2 UN proper shipping name
ADR/RID/ADN, IMDG, IATA
1219 ISOPROPANOL (ISOPROPYL ALCOHOL) mixture
ISOPROPANOL (ISOPROPYL ALCOHOL) mixture

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

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14.4 Packing group
ADR/RID/ADN, IMDG, IATA

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<th>Label</th>
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14.5 Environmental hazards:
Not applicable.

14.6 Special precautions for user
Hazard identification number (Kemler code): 33
EMS Number: F-E-S-D
Stowage Category: 8

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable.

Transport/Additional information:

<table>
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<th>Limited quantities (LQ)</th>
<th>Transport quantity</th>
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(Contd. on page 8)
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

PNEC: Predicted No-Effect Concentration (REACH)

Directive 2012/18/EU

UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL) MIXTURE, 3, II

GB None of the ingredients is listed.

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.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Department issuing SDS:
Product Safety Department
E-Mail: mssds@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
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3