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

1.1 Product identifier
   - Trade name: LUBA-print® 436 (ND) (M)
   - UFI: QWD0-309N-400S-227U

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
     Münzingstrasse 2
     74232 Aßbachtal, 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.
   - Acute Tox. 4 H332 Harmful if inhaled.
   - 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
     - GHS02
     - GHS07
     - GHS09

2.3 Signal word Warning

2.4 Hazard-determining components of labelling:
   - 2-butoxyethyl acetate
   - Hydrocarbons, C10, aromatics, <1% naphthalene
   - 1-methoxy-2-propanol

2.5 Hazard statements
   - H226 Flammable liquid and vapour.
   - H332 Harmful if inhaled.
   - H336 May cause drowsiness or dizziness.
   - H411 Toxic to aquatic life with long lasting effects.

2.6 Precautionary statements
   - P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
   - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
   - P280 Wear protective gloves/protective clothing/eye protection/face protection.
Trade name: LUBA-print® 436 (ND) (M)

(Contd. of page 1)

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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.
· vPvB: None.

SECTION 3: Composition/information on ingredients

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

· Dangerous components:

<table>
<thead>
<tr>
<th>EC number: 918-811-1</th>
<th>Hydrocarbons, C10, aromatics, &lt;1% naphthalene</th>
<th>20-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg.nr.: 01-2119463583-34</td>
<td>Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336</td>
<td></td>
</tr>
<tr>
<td>CAS: 107-98-2</td>
<td>1-methoxy-2-propanol</td>
<td>20-50%</td>
</tr>
<tr>
<td>EINECS: 203-539-1</td>
<td>Flam. Liq. 3, H226; STOT SE 3, H336</td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119475435-35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 112-07-2</td>
<td>2-butoxyethyl acetate</td>
<td>20-50%</td>
</tr>
<tr>
<td>EINECS: 203-933-3</td>
<td>Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332</td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119475112-47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 8002-74-2</td>
<td>Paraffin waxes and Hydrocarbon waxes substance with a workplace exposure limit</td>
<td>10-20%</td>
</tr>
<tr>
<td>EINECS: 232-315-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119488076-30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 91-20-3</td>
<td>naphthalene</td>
<td>&lt;0.5%</td>
</tr>
<tr>
<td>EINECS: 202-049-5</td>
<td>Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302</td>
<td></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.

(Contd. on page 3)
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.
  - 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.
  - 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**

- **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: 107-98-2 1-methoxy-2-propanol**
    - WEL: Short-term value: 360 mg/m³, 150 ppm
    - Long-term value: 375 mg/m³, 100 ppm
    - Sk

    **CAS: 112-07-2 2-butoxyethyl acetate**
    - WEL: Short-term value: 332 mg/m³, 50 ppm
    - Long-term value: 133 mg/m³, 20 ppm
    - Sk

    **CAS: 8002-74-2 Paraffin waxes and Hydrocarbon waxes**
    - WEL: Short-term value: 6 mg/m³
    - Long-term value: 2 mg/m³

  - **DNELs**

    **Hydrocarbons, C10, aromatics, <1% naphthalene**
    - Oral consumer, long-term exposure, systemic effects: 7.5 mg/kg bw/day (human)
    - Dermal consumer, long-term exposure, systemic effects: 12.5 mg/kg bw/day (human)
    - Inhalative consumer, long-term exposure, systemic effects: 7.5 mg/kg bw/day (human)
    - Consumer, long-term exposure, systemic effects: 151 mg/m³ (human)
    - Long-term exposure, systemic effects: 32 mg/m³ (human)

    **CAS: 107-98-2 1-methoxy-2-propanol**
    - Oral consumer, long-term exposure, systemic effects: 3.3 mg/kg bw/day (human)
    - Dermal consumer, long-term exposure, systemic effects: 50.6 mg/kg bw/day (human)
    - Inhalative consumer, long-term exposure, systemic effects: 18.1 mg/kg bw/day (human)
    - Consumer, long-term exposure, systemic effects: 369 mg/m³ (human)
    - Long-term exposure, systemic effects: 43.9 mg/m³ (human)

    **CAS: 112-07-2 2-butoxyethyl acetate**
    - Oral consumer, long-term exposure, systemic effects: 4.3 mg/kg bw/day (human)
    - Dermal consumer, long-term exposure, systemic effects: 102 mg/kg bw/day (human)
    - Inhalative consumer, long-term exposure, systemic effects: 36 mg/kg bw/day (human)
    - Consumer, long-term exposure, systemic effects: 133 mg/m³ (human)
    - Long-term exposure, systemic effects: 67 mg/m³ (human)

  - **PNECs**

    **CAS: 107-98-2 1-methoxy-2-propanol**
    - fresh water: 10 mg/l (not specified)
    - marine water: 1 mg/l (not specified)
    - soil: 2.47 mg/kg (not specified)
    - sediment (fresh water): 41.6 mg/kg (not specified)
    - sediment (marine water): 4.17 mg/kg (not specified)
    - sewage treatment plant: 100 mg/l (not specified)
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2020
Version number 1
Revision: 03.07.2015

Trade name: LUBA-print® 436 (ND) (M)

<table>
<thead>
<tr>
<th>CAS: 112-07-2 2-butoxyethyl acetate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>fresh water</strong></td>
</tr>
<tr>
<td>0.304 mg/l (not specified)</td>
</tr>
<tr>
<td><strong>marine water</strong></td>
</tr>
<tr>
<td>0.0304 mg/l (not specified)</td>
</tr>
<tr>
<td><strong>soil</strong></td>
</tr>
<tr>
<td>0.68 mg/kg (not specified)</td>
</tr>
<tr>
<td><strong>sediment (fresh water)</strong></td>
</tr>
<tr>
<td>2.03 mg/kg (not specified)</td>
</tr>
<tr>
<td><strong>sediment (marine water)</strong></td>
</tr>
<tr>
<td>0.203 mg/kg (not specified)</td>
</tr>
<tr>
<td><strong>sewage treatment plant</strong></td>
</tr>
<tr>
<td>90 mg/l (not specified)</td>
</tr>
</tbody>
</table>

**Note:** 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: \( \geq 0.5 \text{ mm} \)
  - 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:** White
    - **Odour:** Specific type
    - **Odour threshold:** Not determined.
    - **pH-value:** Not determined.

(Contd. on page 6)
### Change in condition
- **Melting point/Freezing point:** Undetermined.
- **Initial boiling point and boiling range:** \( \approx 120 ^\circ C \) (1-methoxy-2-propanol)

### Flash point:
- \( \approx 43 ^\circ C \) (DIN EN ISO 2719)

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

### Ignition temperature:
- \( \approx 287 ^\circ C \) (1-methoxy-2-propanol)

### Decomposition temperature:
- Not determined.

### 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:** \( \approx 0.6 \) Vol % (solvent naphtha (heavy))
- **Upper:** \( \approx 13.7 \) Vol % (1-methoxy-2-propanol)

### Oxidising properties:
- None

### Vapour pressure:
- Not determined.

### Density at 20°C:
- \( \approx 0.9 \) g/cm³ (DIN EN ISO 2811-1)

### Relative density:
- Not determined.

### Vapour density:
- Not determined.

### Evaporation rate:
- Not determined.

### Solubility in / Miscibility with water:
- Insoluble.

### Partition coefficient: n-octanol/water:
- Not determined.

### Viscosity:
- **Dynamic at 23°C:** \( \approx 29 \) mPa·s (DIN EN ISO 3219)
- **Kinematic at 40°C:** \( > 20.5 \) mm²/s (DIN EN ISO 51562)

### 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 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
- Harmful if inhaled.
Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Trade name: LUBA-print® 436 (ND) (M)

- **LD/LC50 values relevant for classification:**

  **Hydrocarbons, C10, aromatics, <1% naphthalene**

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

  **CAS: 107-98-2 1-methoxy-2-propanol**

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50</th>
<th>4,016 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>&gt;2,000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4h</td>
<td>&gt;25.8 mg/l (rat)</td>
</tr>
</tbody>
</table>

  **CAS: 112-07-2 2-butoxyethyl acetate**

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50</th>
<th>1,880 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>1,480 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50</td>
<td>&gt;3.91 mg/l (rat) (rat / 8 h)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50</th>
<th>&gt;5,000 mg/kg (rat)</th>
</tr>
</thead>
</table>

  **CAS: 91-20-3 naphthalene**

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50</th>
<th>490 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>5,000 mg/kg (rat)</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.
  - 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:**

  **Hydrocarbons, C10, aromatics, <1% naphthalene**

  | LL50    | 2-5 mg/l (fish) (Oncorhynchus aquabonita / 96 h) |
  | EL50    | 1-3 mg/l (algae) (green algae / 72 h) |
  | NOELR   | 3-10 mg/l (daphnia) (Daphnia magna / 48 h) |
  |         | 0.771 mg/l (daphnia) (Daphnia magna / 21 days) |

  **CAS: 107-98-2 1-methoxy-2-propanol**

  | LC50    | 21,100 mg/l (daphnia) (Daphnia magna / 48 h) |
  |         | ≥1,000 mg/l (fish) (Oncorhynchus mykiss / 96 h) |

  **CAS: 112-07-2 2-butoxyethyl acetate**

  | EC50    | 1,570 mg/l (algae) (Pseudokirchneriella subcapitata / 72 h) |
  |         | 37 mg/l (daphnia) (Daphnia magna / 48 h) |
  | LC50    | >10-100 mg/l (fish) (Leuciscus idus / 48 h) |

(Contd. on page 8)
Trade name: LUBA-print® 436 (ND) (M)

- 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 UN1993

- 14.2 UN proper shipping name
  - ADR/RID/ADN
    1993 FLAMMABLE LIQUID, N.O.S. (1-METHOXY-2-PROPANOL, Hydrocarbons, C10, aromatics, <1% naphthalene), ENVIRONMENTALLY HAZARDOUS
  - IMDG
    FLAMMABLE LIQUID, N.O.S. (1-METHOXY-2-PROPANOL, Hydrocarbons, C10, aromatics, <1% naphthalene), MARINE POLLUTANT
  - IATA
    FLAMMABLE LIQUID, N.O.S. (1-METHOXY-2-PROPANOL, Hydrocarbons, C10, aromatics, <1% naphthalene)

(Contd. on page 9)
Trade name: LUBA-print® 436 (ND) (M)

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

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

- **14.5 Environmental hazards:**
  - Marine pollutant: Not applicable
  - Special marking (ADR/RID/ADN): Symbol (fish and tree)
  - Product contains environmentally hazardous substances: Hydrocarbons, C10, aromatics, <1% naphthalene

- **14.6 Special precautions for user**
  - EMS Number: F-E-S-E
  - Stowage Category: A
  - Warning: Flammable liquids

- **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: D/E
  - UN "Model Regulation":
    - UN 1993 FLAMMABLE LIQUID, N.O.S. (1-METHOXY-2-PROPANOL, HYDROCARBONS, C10, AROMATICS, <1% NAPHTHALENE), 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
  - P5c FLAMMABLE LIQUIDS
  - Qualifying quantity (tonnes) for the application of lower-tier requirements: 200 t
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.01.2020
Version number 1
Revision: 03.07.2015

Trade name: LUBA-print® 436 (ND) (M)

(Contd. of page 9)

- 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
  H226 Flammable liquid and vapour.
  H302 Harmful if swallowed.
  H304 May be fatal if swallowed and enters airways.
  H312 Harmful in contact with skin.
  H332 Harmful if inhaled.
  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)
  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. 3: Flammable liquids – Category 3
  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