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

- **1.1 Product identifier**
  - Trade name: OMBRELUB RA
  - UFI: 3471-W07C-500N-HEJFT

- **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: Paint additive

- **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
    - Acute Tox. 4       H332 Harmful if inhaled.
    - Skin Irrit. 2      H315 Causes skin irritation.
    - Eye Dam. 1         H318 Causes serious eye damage.
    - Aquatic Acute 1    H400 Very toxic to aquatic life.
    - Aquatic Chronic 3  H412 Harmful 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**
  - GHS05
  - GHS07
  - GHS09

- **Signal word** Danger

- **Hazard-determining components of labelling:**
  - Oleyl sarcoside

- **Hazard statements**
  - H332 Harmful if inhaled.
  - H315 Causes skin irritation.
  - H318 Causes serious eye damage.
  - H410 Very toxic to aquatic life with long lasting effects.

- **Precautionary statements**
  - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
  - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P310 Immediately call a POISON CENTER/doctor.
Safety data sheet  
according to 1907/2006/EC, Article 31

Printing date 25.02.2020  
Revision: 25.02.2020

Trade name: OMBRELUB RA

(Contd. of page 1)

4.2 Most important symptoms and effects, both acute and delayed

5-<10%

For the wording of the listed hazard phrases refer to section 16.

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>CAS</th>
<th>Name</th>
<th>Content</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>84961-70-6</td>
<td>Benzene, mono-alkyl derivs., distn. residues, Asp. Tox. 1, H304</td>
<td>20-50%</td>
<td></td>
</tr>
<tr>
<td>284-660-7</td>
<td>Oleyl sarcoside, Eye Dam. 1, H318, Aquatic Acute 1, H400, Acute Tox. 4, H332, Skin Irrit. 2, H315, Aquatic Chronic 3, H412</td>
<td>20-50%</td>
<td></td>
</tr>
<tr>
<td>110-25-8</td>
<td>1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-castor-oil acyl deriv., hydrides, inner salts, Eye Irrit. 2, H319</td>
<td>5-&lt;10%</td>
<td></td>
</tr>
<tr>
<td>86089-12-5</td>
<td>1-2-(2-(2-Butoxyethoxy)ethoxy)ethanol, Eye Dam. 1, H318</td>
<td>1-&lt;3%</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. 
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:
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. Then consult a doctor.

After swallowing:
Rinse out mouth and then drink plenty of water.
If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed 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.

- **5.2 Special hazards arising from the substance or mixture**
  - Formation of toxic gases is possible during heating or in case of fire.

- **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
  - Wear protective clothing.
  - Product forms slippery surface when combined with water.
  - Wear protective equipment. Keep unprotected persons away.

- **6.2 Environmental precautions:**
  - 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).
  - 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**
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.

- **Information about fire - and explosion protection:** Protect from heat.

- **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: Not required.
    - 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:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

<table>
<thead>
<tr>
<th>CAS: 84961-70-6 Benzene, mono-alkyl derivs., distn. residues</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dermal</strong></td>
</tr>
<tr>
<td>worker, long-term exposure, systemic effects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 110-25-8 Oleyl sarcoside</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dermal</strong></td>
</tr>
<tr>
<td>worker, long-term exposure, systemic effects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 143-22-6 2-[2-(Butoxyethoxy)ethoxy]ethanol</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral</strong></td>
</tr>
<tr>
<td>consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
</tr>
<tr>
<td>consumer, long-term exposure, systemic effects</td>
</tr>
<tr>
<td><strong>Inhalative</strong></td>
</tr>
<tr>
<td>worker, long-term exposure, systemic effects</td>
</tr>
</tbody>
</table>

PNECs

<table>
<thead>
<tr>
<th>CAS: 84961-70-6 Benzene, mono-alkyl derivs., distn. residues</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>fresh water</strong></td>
</tr>
<tr>
<td><strong>marine water</strong></td>
</tr>
<tr>
<td><strong>aqua - intermittent release</strong></td>
</tr>
<tr>
<td><strong>sediment (fresh water)</strong></td>
</tr>
<tr>
<td><strong>sediment (marine water)</strong></td>
</tr>
<tr>
<td><strong>sewage treatment plant</strong></td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td><strong>fresh water</strong></td>
</tr>
<tr>
<td><strong>marine water</strong></td>
</tr>
<tr>
<td><strong>aqua - intermittent release</strong></td>
</tr>
<tr>
<td><strong>soil</strong></td>
</tr>
<tr>
<td><strong>sediment (fresh water)</strong></td>
</tr>
<tr>
<td><strong>sewage treatment plant</strong></td>
</tr>
</tbody>
</table>

- 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:
Only use chemical-protective gloves with CE-labelling of category III.

(Contd. on page 5)
Trade name: OMBRELAB RA

(Contd. of page 4)

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**
  - Nitrile rubber, NBR
  - Recommended thickness of the material: ≥ 0.4 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:** Yellow-brown
    - **Odour:** Characteristic
    - **Odour threshold:** Not determined.
  - **pH-value at 20 °C:** ≈ 6 (DIN ISO 976)
- **Change in condition**
  - **Melting point/freezing point:** Undetermined.
  - **Initial boiling point and boiling range:** ≈ 100 °C
- **Flash point:** > 100 °C (DIN EN ISO 2719)
- **Flammability (solid, gas):** Not applicable.
- **Ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product does not present an explosion hazard.
- **Explosion limits:**
  - **Lower:** Not determined.
  - **Upper:** Not determined.
- **Oxidising properties:** None.
- **Vapour pressure:** Not determined.
- **Density at 20 °C:** ≈ 0.95 g/cm³ (DIN EN ISO 2811-1)
- **Relative density:** Not determined.
- **Vapour density:** Not determined.
- **Evaporation rate:** Not determined.

(Contd. on page 6)
Trade name: OMBRELUB RA

- Solubility in / Miscibility with water: Not miscible or difficult to mix.
- Partition coefficient: n-octanol/water: Not determined.
- Viscosity:
  - Dynamic at 20 °C: ≈ 400 mPas (DIN EN ISO 3219)
  - Kinematic at 40 °C: > 20.5 mm²/s (DIN EN ISO 51562)
- Solvent separation test: Not determined
- Solvent content:
  - Water: ≈ 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
  - Harmful if inhaled.
- LD/LC50 values relevant for classification:
  - CAS: 84961-70-6 Benzene, mono-alkyl derivs., distn. residues
    - Oral LD₅₀ >2,000 mg/kg (rat)
    - Dermal LD₅₀ >2,000 mg/kg (rat)
  - CAS: 110-25-8 Oleyl sarcoside
    - Oral LD₅₀ >5,000 mg/kg (rat)
  - CAS: 143-22-6 2-[2-(2-Butoxyethoxy)ethoxy]ethanol
    - Oral LD₅₀ >5,170 mg/kg (rat)
    - Dermal LD₅₀ 3,540 mg/kg (rabbit)

- 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 Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.

(Contd. of page 7)
SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

**CAS: 84961-70-6 Benzene, mono-alkyl derivs., distn. residues**
- EC50: 1-10 mg/l (algae) (72h)
- EC10: >20 mg/l (bacteria)

**CAS: 110-25-8 Oleyl sarcoside**
- EC50: 6.3 mg/l (algae) (72h)
- EC50: 0.43 mg/l (daphnia) (48h)

**CAS: 143-22-6 2-[2-(2-Butoxyethoxy)ethoxy]ethanol**
- EC50 (static): >500 mg/l (daphnia) (Daphnia magna / 48h)
- EC10 (static): 612.6 mg/l (algae) (Desmodesmus subspicatus / 72 h)
- LC50 (static): >1,995 mg/l (bacteria) (Activated sludge / 30 min. (OECD 209))
- LC50 (static): 2,200-4,600 mg/l (fish) (Leuciscus idus / 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:

- Remark: Very 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.
- Also poisonous for fish and plankton in water bodies.
- Very 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 06 08* other still bottoms and reaction residues

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.
### SECTION 14: Transport information

**14.1 UN-Number**
- ADR/RID/ADN, IMDG, IATA: UN3082

**14.2 UN proper shipping name**
- ADR/RID/ADN: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oleyl sarcoside)
- IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oleyl sarcoside)
- IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Oleyl sarcoside)

**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:**
- **Marine pollutant:** Yes
- **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. (OLEYL SARCOSIDE), 9, III**
SECTION 15: Regulatory information

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category E1 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 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
  H304 May be fatal if swallowed and enters airways.
  H315 Causes skin irritation.
  H318 Causes serious eye damage.
  H319 Causes serious eye irritation.
  H332 Harmful if inhaled.
  H400 Very toxic to aquatic life.
  H412 Harmful 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 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
  Acute Tox. 4: Acute toxicity - inhalation – 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
  Asp. Tox. 1: Aspiration hazard – Category 1
  Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
  Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

* Data compared to the previous version altered.