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

1.1 Product identifier

<table>
<thead>
<tr>
<th>Trade name</th>
<th>Sample Conc. Messing Spray 750 ml 14-01013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>08090107Z</td>
</tr>
</tbody>
</table>

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

This information is not available.

1.3 Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Company</th>
<th>ECKART GmbH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guentersthal 4</td>
<td>91235 Hartenstein</td>
</tr>
<tr>
<td>Telephone</td>
<td>+499152770</td>
</tr>
<tr>
<td>Telefax</td>
<td>+499152777008</td>
</tr>
<tr>
<td>E-mail address of person responsible for the SDS</td>
<td><a href="mailto:msds.eckart@altana.com">msds.eckart@altana.com</a></td>
</tr>
</tbody>
</table>

1.4 Emergency telephone number

GBK Gefahrgut Büro GmbH, Ingelheim, Germany:

| From outside US: | (001) 352-323-3500 |
| (First call in English, response in your language is possible) | US & Canada (toll free) : 1-800-5355-053 |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

<table>
<thead>
<tr>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids, Category 2</td>
<td>H225: Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>Eye irritation, Category 2</td>
<td>H319: Causes serious eye irritation.</td>
</tr>
<tr>
<td>Specific target organ toxicity - single exposure, Category 3, Central nervous system</td>
<td>H336: May cause drowsiness or dizziness.</td>
</tr>
<tr>
<td>Short-term (acute) aquatic hazard, Category 1</td>
<td>H400: Very toxic to aquatic life.</td>
</tr>
<tr>
<td>Long-term (chronic) aquatic hazard, Category 1</td>
<td>H410: Very toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Sample Conc. Messing Spray 750 ml 14-01013


2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms:

Signal word: Danger

Hazard statements:
- H225: Highly flammable liquid and vapour.
- H319: Causes serious eye irritation.
- H336: May cause drowsiness or dizziness.
- H410: Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements:
- EUH066: Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

Prevention:
- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233: Keep container tightly closed.
- P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
- P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:
- acetone
- ethyl acetate
- Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Registration number</th>
<th>Classification REGULATION (EC) No 1272/2008</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
</table>
**Sample Conc. Messing Spray 750 ml 14-01013**

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Flam. Liq.</th>
<th>Eye Irrit.</th>
<th>STOT SE</th>
<th>Asp. Tox.</th>
<th>Aquatic Acute</th>
<th>Aquatic Chronic</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>acetone</td>
<td>67-64-1</td>
<td>200-662-2</td>
<td>606-001-00-8</td>
<td>H225</td>
<td>H319</td>
<td>H336</td>
<td>H336</td>
<td>&gt;= 25 - &lt; 50</td>
</tr>
<tr>
<td>ethyl acetate</td>
<td>141-78-6</td>
<td>205-500-4</td>
<td>607-022-00-5</td>
<td>H225</td>
<td>H319</td>
<td>H336</td>
<td>H336</td>
<td>&gt;= 25 - &lt; 50</td>
</tr>
<tr>
<td>solvent naphtha (petroleum), light arom.</td>
<td>64742-95-6</td>
<td>918-668-5</td>
<td>01-2119455851-35</td>
<td>H226</td>
<td>H319</td>
<td>H336</td>
<td>H336</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>231-159-6</td>
<td>01-2119480154-42</td>
<td>H302</td>
<td>H319</td>
<td>H400</td>
<td>H410</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>zinc powder -zinc dust (stabilised)</td>
<td>7440-66-6</td>
<td>231-175-3</td>
<td>030-001-01-9</td>
<td>01-2119467174-37</td>
<td>H400</td>
<td>H410</td>
<td>Aquatic Acute 1; H400</td>
<td>Aquatic Chronic 1; H410</td>
</tr>
<tr>
<td>amines, hydrogenated tallow alkyl</td>
<td>61788-45-2</td>
<td>90640-32-7</td>
<td>262-976-6</td>
<td>612-284-00-9</td>
<td>01-2119473799-15</td>
<td>Skin Irrit. 2; H315</td>
<td>STOT RE 2; H373</td>
<td>STOT SE 3; H336</td>
</tr>
</tbody>
</table>

For explanation of abbreviations see section 16.

---

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General advice**

- Move the victim to fresh air.
- Move out of dangerous area.
- Show this safety data sheet to the doctor in attendance.

**If inhaled**

- Consult a physician after significant exposure.
- If unconscious, place in recovery position and seek medical advice.

**In case of skin contact**

- Wash off immediately with soap and plenty of water.
- If on skin, rinse well with water.
- If on clothes, remove clothes.
In case of eye contact : Immediately flush eye(s) with plenty of water. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Causes serious eye irritation. May cause drowsiness or dizziness. Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

This information is not available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Special powder against metal fire
Dry sand
ABC powder

Unsuitable extinguishing media : Water
High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored
separately in closed containments.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:
- Evacuate personnel to safe areas.
- Ensure adequate ventilation.
- Use personal protective equipment.
- Ensure adequate ventilation.
- Remove all sources of ignition.
- Evacuate personnel to safe areas.
- Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions:
- Prevent product from entering drains.
- Prevent further leakage or spillage if safe to do so.
- If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up:
- Use mechanical handling equipment.
- Pick up and transfer to properly labelled containers.
- Do not flush with water.
- Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
- Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling:
- Avoid formation of aerosol.
- Do not breathe vapours/dust.
- Avoid exposure - obtain special instructions before use.
- Avoid contact with skin and eyes.
For personal protection see section 8. 
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion:
Keep away from heat and sources of ignition. No smoking.
Do not spray on a naked flame or any incandescent material.
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures:
General industrial hygiene practice.
When using do not eat or drink. When using do not smoke.
Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers:
Keep away from sources of ignition - No smoking. Do not store near combustible materials. Keep containers tightly closed in a cool, well-ventilated place. To maintain product quality, do not store in heat or direct sunlight.
No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions:
Protect from humidity and water.

Advice on common storage:
Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Do not store together with oxidizing and self-igniting products.

Dampness:
Keep in a dry, cool and well-ventilated place.

Further information on storage stability:
No decomposition if stored and applied as directed.

7.3 Specific end use(s)
This information is not available.
### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

**Occupational Exposure Limits**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>acetone</td>
<td>67-64-1</td>
<td>TWA</td>
<td>500 ppm 1.210 mg/m³</td>
<td>2000/39/EC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>Indicative</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>GV</td>
<td>250 ppm 600 mg/m³</td>
<td>DK OEL</td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>Guiding list of organic solvents,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The substance has an EC-limit value</td>
<td></td>
</tr>
<tr>
<td>ethyl acetate</td>
<td>141-78-6</td>
<td>GV</td>
<td>150 ppm 540 mg/m³</td>
<td>DK OEL</td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>Guiding list of organic solvents.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>400 ppm 1.468 mg/m³</td>
<td>2017/164/EU</td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>Indicative</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>200 ppm 734 mg/m³</td>
<td>2017/164/EU</td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>Indicative</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>GV (Fumes)</td>
<td>0,1 mg/m³ (Copper)</td>
<td>DK OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>GV (powder and dust)</td>
<td>1 mg/m³ (Copper)</td>
<td>DK OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>zinc powder -zinc dust (stabilised)</td>
<td>7440-66-6</td>
<td>GV (Dust)</td>
<td>0,5 mg/m³</td>
<td>DK OEL</td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>List of limit values for dust. Limit values for dust have been established for concentrations of total dust and for concentrations of respirable dust. Except for wood dust, Arbejdstilsynet has not established a limit value for inhalable dust (DS/EN 481 on inhalable dust).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>GV (Respirable dust)</td>
<td>5 mg/m³</td>
<td>DK OEL</td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>List of limit values for dust. Limit values for dust have been established for concentrations of total dust and for concentrations of respirable dust. Except for wood dust, Arbejdstilsynet has not established a limit value for inhalable dust (DS/EN 481 on inhalable dust).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>GV (Dust)</td>
<td>10 mg/m³</td>
<td>DK OEL</td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>List of limit values for dust. Limit values for dust have been established for concentrations of total dust and for concentrations of respirable dust. Except for wood dust, Arbejdstilsynet has not established a limit value for inhalable dust (DS/EN 481 on inhalable dust).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>GV (Total dust)</td>
<td>3 mg/m³</td>
<td>DK OEL</td>
</tr>
<tr>
<td>Further information</td>
<td></td>
<td>List of limit values for dust. Limit values for dust have been established for concentrations of total dust and for concentrations of respirable dust. Except for wood dust, Arbejdstilsynet has not established a limit value for inhalable dust (DS/EN 481 on inhalable dust).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>End Use</th>
<th>Exposure routes</th>
<th>Potential health effects</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>acetone</td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>186 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>1210 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic effects</td>
<td>62 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>62 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>200 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>short term – local effects</td>
<td>2420 mg/m³</td>
</tr>
<tr>
<td>ethyl acetate</td>
<td>Workers</td>
<td>Inhalation</td>
<td>short term – local effects</td>
<td>1468 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>1468 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>734 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>63 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>734 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic effects</td>
<td>734 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>734 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>367 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>37 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic effects</td>
<td>367 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic effects</td>
<td>4,5 mg/kg</td>
</tr>
<tr>
<td>Copper</td>
<td>Workers</td>
<td>Skin contact</td>
<td>short term – systemic effects</td>
<td>273 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>short term – systemic effects</td>
<td>20 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>137 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Skin contact</td>
<td>short term – systemic effects</td>
<td>273 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Inhalation</td>
<td>short term – systemic effects</td>
<td>20 mg/m³</td>
</tr>
<tr>
<td>zinc powder - zinc dust (stabilised)</td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>83 mg/kg</td>
</tr>
</tbody>
</table>
8.2 Exposure controls

**Personal protective equipment**

**Eye protection**
- Safety glasses

Wear face-shield and protective suit for abnormal processing problems.

**Hand protection**
- Material: Solvent-resistant gloves (butyl-rubber)

**Remarks**
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). The exact break through time can be obtained from the protective glove producer and this has to be observed. Please observe the instructions regarding permeability and
breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Recommended preventive skin protection Skin should be washed after contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Use suitable breathing protection if workplace concentration requires. Respirator with a vapour filter (EN 141)

In the case of vapour formation use a respirator with an approved filter.

Environmental exposure controls
Water : The product should not be allowed to enter drains, water courses or the soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : No data available

Odour : characteristic

Odour Threshold : No data available

pH : No data available

Freezing point : No data available

Boiling point/boiling range : 55 °C

Flash point : -19 °C

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Self-ignition : No data available
### Sample Conc. Messing Spray 750 ml 14-01013

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Smoldering temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit / Upper flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit / Lower flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
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<tr>
<td>Density</td>
<td>ca. 0.96 g/cm³</td>
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<td>Bulk density</td>
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<tr>
<td>Water solubility</td>
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<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
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<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
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<tr>
<td>Viscosity</td>
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<tr>
<td>Viscosity, dynamic</td>
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<tr>
<td>Viscosity, kinematic</td>
<td>&gt; 21 mm²/s (40 °C)</td>
</tr>
<tr>
<td>Flow time</td>
<td>10 - 13 s at 20 °C</td>
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#### 9.2 Other information

No data available
SECTION 10: Stability and reactivity

10.1 Reactivity
No decomposition if stored and applied as directed.

10.2 Chemical stability
No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions
Hazardous reactions : Stable under recommended storage conditions.
No decomposition if stored and applied as directed.
Vapours may form explosive mixture with air.

10.4 Conditions to avoid
Conditions to avoid : Do not allow evaporation to dryness.
Heat, flames and sparks.

10.5 Incompatible materials

10.6 Hazardous decomposition products
Thermal decomposition : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Not classified based on available information.

Product:
Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Components:
acetone:
Acute oral toxicity : LD50 (Rabbit): 4.700 - 5.800 mg/kg
(Mouse): 3.000 mg/kg
(Rat): 9.800 mg/kg

Acute inhalation toxicity : LC50 (Rat): 76 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

**ethyl acetate:**
Acute oral toxicity : (Rat): 5.620 mg/kg
Acute inhalation toxicity :
  LC50 (Rat): 56 mg/l
  Exposure time: 4 h
  Test atmosphere: vapour
Acute dermal toxicity :
  LD50 (Rabbit): > 18.000 mg/kg

**solvent naphtha (petroleum), light arom.:**
Acute oral toxicity :
  LD50 (Rat): 3.492 mg/kg
Acute dermal toxicity :
  LD50 (Rabbit): > 3.160 mg/kg

**Copper:**
Acute oral toxicity :
  Assessment: The component/mixture is moderately toxic after single ingestion.

**zinc powder -zinc dust (stabilised):**
Acute oral toxicity :
  (Rat): > 2.000 mg/kg
Acute inhalation toxicity :
  LC50 (Rat): 5.41 mg/l
  Exposure time: 4 h
  Test atmosphere: dust/mist

**amines, hydrogenated tallow alkyl:**
Acute oral toxicity :
  LD50 (Rat): > 2.000 - 5.000 mg/kg
  Method: OECD Test Guideline 401

**Skin corrosion/irritation**
Repeated exposure may cause skin dryness or cracking.

**Product:**
Remarks: May cause skin irritation in susceptible persons.

**Components:**

**acetone:**
Remarks: Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.

**Copper:**
Remarks: May cause skin irritation in susceptible persons.
amines, hydrogenated tallow alkyl:
Result: Skin irritation
Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation
Causes serious eye irritation.

Product:
Remarks: Eye irritation

Components:
acetone:
Remarks: Severe eye irritation

Copper:
Result: Eye irritation

amines, hydrogenated tallow alkyl:
Result: Irreversible effects on the eye
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation
Skin sensitisation
Not classified based on available information.
Respiratory sensitisation
Not classified based on available information.
Germ cell mutagenicity
Not classified based on available information.
Carcinogenicity
Not classified based on available information.
Reproductive toxicity
Not classified based on available information.

STOT - single exposure
May cause drowsiness or dizziness.

Components:
solvent naphtha (petroleum), light arom.:
Assessment: May cause respiratory irritation., May cause drowsiness or dizziness.

STOT - repeated exposure
Not classified based on available information.
Components:
amines, hydrogenated tallow alkyl:
Target Organs: Liver, Gastrointestinal tract, Immune system
Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Aspiration toxicity
Not classified based on available information.

Components:
solvent naphtha (petroleum), light arom.:
May be fatal if swallowed and enters airways.

amines, hydrogenated tallow alkyl:
May be fatal if swallowed and enters airways.

Further information
Product:
Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Concentrations substantially above the TLV value may cause narcotic effects.
Solvents may degrease the skin.

Components:
Copper:
Remarks: No data available

zinc powder -zinc dust (stabilised):
Remarks: No data available

amines, hydrogenated tallow alkyl:
Remarks: Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity
Components:
acetone:
Toxicity to daphnia and other aquatic invertebrates: (Daphnia magna (Water flea)): 21.600 mg/l
ethyl acetate:
Toxicity to daphnia and other aquatic invertebrates: (Daphnia (water flea)): 717 mg/l

solvent naphtha (petroleum), light arom.:
Ecotoxicology Assessment
Long-term (chronic) aquatic hazard: Toxic to aquatic life with long lasting effects.

Copper:
M-Factor (Short-term (acute) aquatic hazard): 10

Ecotoxicology Assessment
Short-term (acute) aquatic hazard: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard: Very toxic to aquatic life with long lasting effects.

zinc powder-zinc dust (stabilised):
Ecotoxicology Assessment
Short-term (acute) aquatic hazard: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard: Very toxic to aquatic life with long lasting effects.

amines, hydrogenated tallow alkyl:
M-Factor (Short-term (acute) aquatic hazard): 10
M-Factor (Long-term (chronic) aquatic hazard): 10

Ecotoxicology Assessment
Short-term (acute) aquatic hazard: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard: Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability
No data available
12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment

**Product:**
Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

**Product:**
Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

**Components:**

**Copper:**
Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

**zinc powder -zinc dust (stabilised):**
Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

**amines, hydrogenated tallow alkyl:**
Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

**European Waste Catalogue** : 08 01 11 - waste paint and varnish containing organic solvents or other dangerous substances

13.1 Waste treatment methods

**Product** : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
In accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number

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<th>ADR</th>
<th>UN 1263</th>
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<td>IMDG</td>
<td>UN 1263</td>
</tr>
<tr>
<td>IATA</td>
<td>UN 1263</td>
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</table>

14.2 UN proper shipping name

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14.3 Transport hazard class(es)

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<tr>
<td>IATA</td>
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14.4 Packing group

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<table>
<thead>
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<tr>
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<tr>
<td>Packing group</td>
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<tr>
<td>Labels</td>
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</tbody>
</table>
14.5 Environmental hazards

ADR
Environmental hazard : yes

IMDG
Marine pollutant : yes

14.6 Special precautions for user
Not applicable

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

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

Volatile organic compounds : Directive 2004/42/EC
Volatile organic compounds (VOC) content: 77.01 %, 739.26 g/l

15.2 Chemical safety assessment

SECTION 16: Other information

Full text of H-Statements

H225 : Highly flammable liquid and vapour.
H226 : Flammable liquid and vapour.
H302 : Harmful if swallowed.
H304 : May be fatal if swallowed and enters airways.
H315 : Causes skin irritation.
H318 : Causes serious eye damage.
H319 : Causes serious eye irritation.
H335 : May cause respiratory irritation.
H336 : May cause drowsiness or dizziness.
H373 : May cause damage to organs through prolonged or repeated exposure.
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Sample Conc. Messing Spray 750 ml 14-01013

Version 2
Revision Date: 20.12.2018
SDS Number: 102000000036
Print Date: 24.12.2018
Date of first issue: 23.04.2014

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.

Full text of other abbreviations
Acute Tox.: Acute toxicity
Aquatic Acute: Short-term (acute) aquatic hazard
Aquatic Chronic: Long-term (chronic) aquatic hazard
Asp. Tox.: Aspiration hazard
Eye Dam.: Serious eye damage
Eye Irrit.: Eye irritation
Flam. Liq.: Flammable liquids
Skin Irrit.: Skin irritation
STOT RE: Specific target organ toxicity - repeated exposure
STOT SE: Specific target organ toxicity - single exposure
DK OEL: Denmark. Occupational Exposure Limits
2000/39/EC / TWA: Limit Value - eight hours
2017/164/EU / STEL: Short term exposure limit
2017/164/EU / TWA: Limit Value - eight hours
DK OEL / GV: Long term exposure limit

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council