SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: COOLI ADDITIVE PLUS

Cat. No. 49900071, 49900072

Container size: 1 l, 4 l

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

Application: Additive for cutting fluid.

1.3. Details of the supplier of the safety data sheet

Supplier: Struers ApS, Singapore Branch

627A Aljunied Road

#07-08 BizTech Centre

389842 Singapore

Tel:+65 6299 2268

Responsible for safety data sheet authoring: DHI

Any questions to the contents of this safety data sheet should be sent to: struers@struers.dk

1.4. Emergency telephone number

24-hour Emergency Medical Service (EMS): 995.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

GHS: Based on available data the classification criteria are not met.

2.2. Label elements

The substance/mixture does not meet the criteria for classification and labelling.

2.3. Other hazards

PBT/vPvB: No information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

The following substances shall be indicated according to legislation:
SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

**Inhalation:**
Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring along these instructions.

**Skin contact:**
Remove contaminated clothes and rinse skin thoroughly with water. In case of eczema or other skin disorders: Seek medical attention and bring these instructions.

**Eye contact:**
Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Bring along these instructions.

**Ingestion:**
Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions. Do not induce vomiting.

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

**Symptoms/effects:**
See section 11 for more detailed information on health effects and symptoms.

4.3. Indication of any immediate medical attention and special treatment needed

**Medical attention/treatments:**
Treat symptomatically.
SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media
Extinguishing media: Extinguish with foam, carbon dioxide, dry powder or water fog. Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture
Specific hazards: In case of fire, toxic gases may be formed (COx, NOx).

5.3. Advice for firefighters
Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
In case of spills, beware of slippery floors and surfaces.
Protective equipment: Avoid inhalation of vapours and spray mist and contact with skin and eyes. For personal protection, see section 8.
Emergency procedures: No specific recommendations. For personal protection, see section 8.

6.2. Environmental precautions
Environmental precautions: Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Absorb spillage with non-combustible, absorbing material.

6.4. Reference to other sections
Reference: For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Safe handling advice: Avoid inhalation of vapours and contact with skin and eyes. Observe good chemical hygiene practices. Change contaminated clothing.
Technical measures: Work practice should minimise contact. Do not eat, drink or smoke when using the product.
Technical precautions: Mechanical ventilation may be required. Provide easy access to water supply and eye wash facilities.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Store in tightly closed original container in a dry and cool place.

7.3. Specific end use(s)
Specific use(s): No information available.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No occupational exposure limit assigned.

8.2. Exposure controls

**Engineering measures:** Provide adequate ventilation. Minimize the risk of inhalation of vapours.

**Personal protection:** Personal protection equipment should be chosen according to the ANSI standards and in discussion with the supplier of the personal protective equipment.

**Respiratory equipment:** In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment. It is recommended to use respiratory equipment with combination filter, type ABEK

**Hand protection:** Wear protective gloves. Nitrile gloves or rubber gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

**Eye protection:** Wear goggles/face shield.

**Skin protection:** Wear apron or protective clothing in case of contact.

**Hygiene measures:** Wash hands after handling. Wash contaminated clothing before reuse.

**Environmental Exposure Controls:** Not available.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>9.6 (20°C) (68°F)</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt;100°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;100°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-flammable</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.055</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Kinematic viscosity: 10 mm²/s (20°C) (68°F)</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

9.2. Other information

| Other data                | Volatile Organic Compound (VOC): 0 g/l (calculated) |
SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
Reactivity: Cutting debris kept in closed container may develop gas. Keep cutting debris dry to avoid exothermic reaction.

10.2. Chemical stability
Stability: Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions
Hazardous reactions: None under normal conditions.

10.4. Conditions to avoid
Conditions/materials to avoid: Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials
Incompatible materials: Strong oxidising substances, strong acids and strong bases.

10.6. Hazardous decomposition products
Hazardous decomposition products: In case of fire, toxic gases (CO, CO2, NOx) may be formed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Acute Toxicity (Oral): Based on available data, the classification criteria are not met.

1,2,3-Benzotriazole: LD50 = 720 mg/kg (oral rat)

Acute Toxicity (Dermal): Based on available data, the classification criteria are not met.

Acute Toxicity (Inhalation): Based on available data, the classification criteria are not met.

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.

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.

Aspiration hazard: Based on available data, the classification criteria are not met.

Inhalation: Vapours may cause drowsiness and dizziness.

Skin contact: Prolonged and frequent contact may cause redness and irritation.

Eye contact: May irritate and cause redness and pain.

Ingestion: May be absorbed in the body and cause dizziness, nausea and vomiting.
SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity: Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability
Degradability: This product is expected to be not readily biodegradable.

12.3. Bioaccumulative potential
Bioaccumulative potential: Not determined.

1,2,3-Benzotriazole: log Pow: 1.44

12.4. Mobility in soil
Mobility: No data available.

12.5. Results of PBT and vPvB assessment
PBT/vPvB: No information available.

12.6. Other adverse effects
Other adverse effects: No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste from residues: Dispose of waste and residues in accordance with local authority requirements.
Waste is classified as hazardous waste. Do not store cutting debris in closed container. See section 10.1.
EWC-code: 12 01 09

Contaminated packaging: Dispose of waste and residues in accordance with local authority requirements.
SAFETY DATA SHEET

SECTION 14: TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA).

**14.1. UN number**

UN-No: -

**14.2. UN proper shipping name**

Proper Shipping Name: -

**14.3. Transport hazard class(es)**

Class: -

**14.4. Packing group**

PG: -

**14.5. Environmental hazards**

Marine pollutant: -

Environmentally Hazardous Substance: -

**14.6. Special precautions for user**

Special precautions: None known.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Transport in bulk: Not relevant.

SECTION 15: REGULATORY INFORMATION

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

SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: -

The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

[Signature]

Allan Vorup

Additional information:
Classification according to Singapore Standard SS 586: Part 2 : 2014:
Calculation method.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.