SECTION 1. IDENTIFICATION

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.

Uses advised against: No specific uses advised against are identified.

1.3. Details of the supplier

Supplier: Struers ApS, Singapore Branch
627A Aljunied Road
#07-08 BizTech Centre
389842 Singapore
Tel:+65 6299 2268

Responsible for safety data sheet authoring: 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

National Poison Management and Control Center: +63 2 8524 1078

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

DAO 2015-09: 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:

DAO 2015-09:

%:	CAS-No.:	EC No.:	Reg. No.:	Chemical name:	Hazard classification:	Notes:
5-7	105-59-9	203-312-7	-	2,2'-(Methylimino)diethanol	Eye irritant Category 2	
1-5	-	-	-	Sebacic acid, compound with 2-aminoethanol, ionic mixture, chemical equilibrium of acid and base in an aqueous solution	Acute Inhalation Toxicity Category 4 Category 3 Target organ toxicant, Single Exposure (respiratory tract irritation)	
1-2.5	95-14-7	202-394-1	01-2119979079-20-xxxx	1,2,3-Benzotriazole	Acute Oral Toxicity Category 4 Eye irritant Category 2 Aquatic Chronic Toxicity Category 2	
0.1-0.5	5397-31-9	226-420-6	-	3-(2-Ethylhexyloxy)propylamine	Acute Dermal Toxicity Category 3 Acute Oral Toxicity Category 4 Skin Corrosive Category 1A Aquatic Chronic Toxicity Category 2	
0.1-<0.5	31075-24-8	608-578-1	-	1,2-Ethanediamine, N,N,N',N'-tetramethyl-, polymer with 1,1'-oxybis[2-chloroethane]	Acute Oral Toxicity Category 4 Acute Inhalation Toxicity Category 4 Eye irritant Category 2 Aquatic Acute Toxicity Category 1 Aquatic Chronic Toxicity Category 1	*
<0.2	3811-73-2	223-296-5	-	Pyridine-2-thiol 1-oxide, sodium salt	Acute Oral Toxicity Category 4 Acute Dermal Toxicity Category 4 Acute Inhalation Toxicity Category 4 Skin Irritant Category 2 Eye irritant Category 2 Aquatic Acute Toxicity Category 1	**

Notes:

*: M-factor (acute): 10; M-factor (chronic): 1

**: M-factor (acute): 100

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. FIRE-FIGHTING 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. Specificl hazards arising from the chemical

Specific hazards: In case of fire, toxic gases may be formed (COx, NOx).

5.3. Special protective actions 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.

For non-emergency personnel: Avoid inhalation of vapours and spray mist and contact with skin and eyes. For personal protection, see section 8.

For emergency responders: 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.
Personal protection:	Personal protection equipment should be chosen according to the relevant 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. The most suitable glove must be chosen in collaboration with the gloves supplier, who can inform about the breakthrough time of the glove material. Breakthrough time: 480 min Thickness: 0.11 mm
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

Form:	Liquid.
Colour:	Yellow.
Odour:	Mild.
Odour threshold:	Not available.
pH:	9,6 (20°C) (68°F)
Melting point:	Not available.
Boiling point:	>100°C >212°F
Flash point:	>100°C >212°F
Evaporation rate:	Not available.
Flammability (solid, gas):	Not applicable. (*)
Explosive limits	Not applicable.
Vapour pressure:	Not available.
Vapour density:	Not available.
Relative density:	1,055
Solubility:	Soluble in water.
Partition coefficient (n-octanol/water):	Not applicable.
Auto-ignition	Not available.
Decomposition	Not available.
Viscosity:	Kinematic viscosity: 10 mm²/s (20°C) (68°F)
Explosive properties:	Not applicable.
Oxidising properties:	Not applicable.

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 develope 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)
3-(2-Ethylhexyloxy)propylamine: LD50 = 320 mg/kg (oral rat)
1,2-Ethanediamine, N,N,N',N'-tetramethyl-, polymer with 1,1'-oxybis[2-chloroethane]: LD50 = 1951 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.

1,2-Ethanediamine, N,N,N',N'-tetramethyl-, polymer with 1,1'-oxybis[2-chloroethane] = 0,37 (EC50 48 hours, Daphnia, mg/l)

1,2,3-Benzotriazole = 107 (EC50 48 hours, Daphnia, mg/l)

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.

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

SECTION 14: TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, ICAO/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

National regulation: DENR Department Administrative Order 2015-09. Rules and Procedures for the Implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in Preparation of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances".
EMB Memorandum Circular No. 2015-011 - Guidance Manual for DAO 2015-09.
Occupational Safety and Health Standards (As Amended, 1989). Rule 1070 - Occupational Health and Environmental Control.

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: 9.
The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

Allan Vorup

Additional information: Classification according to DAO 2015-09:
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.
www.dhigroup.com.