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

1.1. Product identifier

Product form: Substance
Product name: Tylose HX 500 T
Product code: HEC_HX_R
Further information: UFI: Not classified = Not applicable

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

1.2.1. Relevant identified uses

Use of the substance/mixture: Rheological Additive
Special applications: Coating material
Chemical for use in construction

1.2.2. Uses advised against

Restrictions on use: There is no information available on applications that are not advised

1.3. Details of the supplier of the safety data sheet

Manufacturer: SE Tylose GmbH & Co. KG
Kasteler Straße 45
65203 Wiesbaden
Germany
T +49 611 962 6309
product.safety@setylose.com - www.setylose.com
E-mail address of competent person responsible for the SDS: sds@gbk-ingelheim.de

1.4. Emergency telephone number

Emergency number: +49 (0) 6312 / 84463 (GBK GmbH)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]
No labelling applicable

2.3. Other hazards

Other hazards not contributing to the classification: Dust may form explosive mixture in air. Handle in accordance with good industrial hygiene and safety practice.
SECTION 3: Composition/information on ingredients

3.1. Substances

Comments: A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006.

Name: Tylose HX 500 T

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose, 2-hydroxyethyl ether, hydrophobically modified, with delayed solubility</td>
<td>CAS-No.: 9004-62-0</td>
<td>&gt; 88</td>
<td>Not classified</td>
</tr>
<tr>
<td>Glyoxal</td>
<td>CAS-No.: 107-22-2 EC-No.: 203-474-9 EC Index-No.: 605-016-00-7 REACH-no: 01-2119461733-37</td>
<td>&lt; 0,01</td>
<td>Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 2, H341 STOT SE 3, H335</td>
</tr>
</tbody>
</table>

Comments: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. Call a doctor.

First-aid measures after skin contact: Wash skin with plenty of water.

First-aid measures after eye contact: Rinse immediately with plenty of water, also under the eyelids. Consult an ophthalmologist if irritation persists.

First-aid measures after ingestion: Rinse mouth. If symptoms persist, call a physician.

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

Symptoms/effects after skin contact: May cause sensitisation of susceptible persons by skin contact.

Symptoms/effects after eye contact: May cause eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: No data available.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire: Toxic fumes may be released. Carbon oxides (CO, CO2).

5.3. Advice for firefighters

Protection during firefighting: Self-contained breathing apparatus.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Avoid dust formation. Do not breathe dust. Forms slippery surfaces with water.

6.1.1. For non-emergency personnel
Emergency procedures: Ventilate spillage area.

6.1.2. For emergency responders
Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: “Exposure controls/personal protection”.

6.2. Environmental precautions
Large amounts of the product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Shovel or sweep up and put in a closed container for disposal. Avoid dust formation.
Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
Refer to protective measures listed in sections 7 and 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment. Avoid dust formation. Dust may form explosive mixture in air. Keep away from sources of ignition - No smoking.
Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Material is hygroscopic. Protect from atmospheric moisture and water.
Information on mixed storage: No special storage requirements.

7.3. Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
8.1.1 National occupational exposure and biological limit values
No additional information available

8.1.2. Recommended monitoring procedures
No additional information available

8.1.3. Air contaminants formed
No additional information available

8.1.4. DNEL and PNEC
Additional information: Obey TLV for common dust, if applicable

8.1.5. Control banding
No additional information available
8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station. Avoid dust formation.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:
Not required for normal conditions of use

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Not required for normal conditions of use. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

<table>
<thead>
<tr>
<th>Respiratory protection</th>
<th>Device</th>
<th>Filter type</th>
<th>Condition</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Breathing apparatus with filter</td>
<td>Type P1</td>
<td>Short term exposure</td>
<td></td>
</tr>
</tbody>
</table>

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

Other information:
Do not eat, drink or smoke when using this product. Wash hands immediately after handling the product. Do not breathe dust.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>whitish</td>
</tr>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not specifically applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not specifically applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not specifically applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Product is not explosive. Dust may form explosive mixture in air.</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower explosive limit (LEL)</td>
<td>30 g/m³</td>
</tr>
<tr>
<td>Upper explosive limit (UEL)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not specifically applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>&gt; 120 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>5.5 – 8 10g/l</td>
</tr>
<tr>
<td>pH solution</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Tylose HX 500 T
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
SDS No: 10896-0390

Viscosity, kinematic : Not specifically applicable
Viscosity, dynamic : Not specifically applicable
Solubility : Water: > 10 g/l @ 20°C
Partition coefficient n-octanol/water (Log Kow) : Not available
Log Pow : < 0
Vapour pressure : Not specifically applicable
Vapour pressure at 50 °C : Not available
Density : 1.1 – 1.5 g/cm³ 20 °C
Relative density : Not specifically applicable
Relative vapour density at 20 °C : Not specifically applicable
Particle size : Not available
Particle size distribution : Not available
Particle shape : Not available
Particle aspect ratio : Not available
Particle aggregation state : Not available
Particle agglomeration state : Not available
Particle specific surface area : Not available
Particle dustiness : Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes
No additional information available

9.2.2. Other safety characteristics
Minimum ignition energy : > 10 mJ
Relative evaporation rate (butylacetate=1) : Not specifically applicable
Bulk density : 200 – 600 g/l
Combustion class : 5
Smoldering temperature : 280 °C
pmax : 10 bar
Dust explosion category : ST1
KSt : < 200 bar·m/s
Ignition temperature : > 460 °C

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
No decomposition if stored normally.

10.5. Incompatible materials
Strong oxidizing agent.

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Tylose HX 500 T

<table>
<thead>
<tr>
<th>Chemical</th>
<th>LC50 Oral Rat</th>
<th>LD50 Oral</th>
<th>EC50 Other aquatic organisms [1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glyoxal (107-22-2)</td>
<td>200 mg/kg</td>
<td>&gt; 2000 mg/kg (OECD 425 method)</td>
<td>&gt; 1000 mg/l (OECD 209 method)</td>
</tr>
</tbody>
</table>

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Other information: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

SECTION 12: Ecological information

12.1. Toxicity

<table>
<thead>
<tr>
<th>Hazardous to the aquatic environment, short-term (acute)</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous to the aquatic environment, long-term (chronic)</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Tylose HX 500 T

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>&gt; 500 mg/l (OECD 203 method)</td>
</tr>
<tr>
<td>EC50 - Other aquatic organisms [1]</td>
<td>&gt; 1000 mg/l (OECD 209 method)</td>
</tr>
</tbody>
</table>
Tylose HX 500 T
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
SDS No: 10896-0390

12.2. Persistence and degradability

**Tylose HX 500 T**

Persistence and degradability
Product is biodegradable. Does not affect the functioning of waste-water treatment plants. In case of loss of large quantities, advice local authorities.

Chemical oxygen demand (COD) < 1500 mg/g

12.3. Bioaccumulative potential

**Tylose HX 500 T**

Log Pow < 0

Bioaccumulative potential Not potentially bioaccumulable.

**Glyoxal (107-22-2)**

Log Pow -1.15

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information: Do not release undiluted or in higher quantities into the groundwater, sewerage or waters

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector’s sorting instructions.

European List of Waste (LoW) code: 16 03 06 - organic wastes other than those mentioned in 16 03 05

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number or ID number</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
14.4. Packing group

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

14.5. Environmental hazards

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

No supplementary information available

14.6. Special precautions for user

Overland transport
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

Inland waterway transport
Not applicable

Rail transport
Not applicable

14.7. Maritime transport in bulk according to IMO instruments
Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations
No REACH Annex XVII restrictions
Tylose HX 500 T is not on the REACH Candidate List
Tylose HX 500 T is not on the REACH Annex XIV List

15.1.2. National regulations
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the Canadian DSL (Domestic Substances List)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

<table>
<thead>
<tr>
<th>Abbreviations and acronyms:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
</tr>
<tr>
<td>ADN</td>
</tr>
<tr>
<td>IATA</td>
</tr>
<tr>
<td>IMDG</td>
</tr>
<tr>
<td>RID</td>
</tr>
<tr>
<td>DOT</td>
</tr>
<tr>
<td>TDG</td>
</tr>
<tr>
<td>GHS</td>
</tr>
<tr>
<td>IARC</td>
</tr>
<tr>
<td>vPvB</td>
</tr>
<tr>
<td>PBT</td>
</tr>
<tr>
<td>PNEC</td>
</tr>
<tr>
<td>CAS</td>
</tr>
<tr>
<td>IBC-Code</td>
</tr>
<tr>
<td>ATE</td>
</tr>
<tr>
<td>CLP</td>
</tr>
<tr>
<td>BCF</td>
</tr>
<tr>
<td>MARPOL 73/78</td>
</tr>
<tr>
<td>ADG</td>
</tr>
</tbody>
</table>

Other information: Data of sections 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities. The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge. The delivery specifications are contained in the corresponding product sheet. This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

Full text of H- and EUH-statements:

| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4 |
| Eye Irrit. 2              | Serious eye damage/eye irritation, Category 2 |
| H315                      | Causes skin irritation. |
| H317                      | May cause an allergic skin reaction. |
| H319                      | Causes serious eye irritation. |
| H332                      | Harmful if inhaled. |
| H335                      | May cause respiratory irritation. |
### Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H341</td>
<td>Suspected of causing genetic defects.</td>
</tr>
<tr>
<td>Muta. 2</td>
<td>Germ cell mutagenicity, Category 2</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Category 2</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>Skin sensitisation, Category 1</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation</td>
</tr>
</tbody>
</table>

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.