SECTION 1: Product identifier

1.1. GHS Product identifier
Product form: Substance
Substance name: Tylose HA 40 YP2_D
Product code: HEC_R

1.2. Other means of identification
Further information: UFI: Not classified = Not applicable

1.3. Recommended use of the chemical and restrictions on use
Recommended use: Rheological Additive
Special applications: Coating material, Chemical for use in construction
Restrictions on use: There is no information available on applications that are not advised

1.4. Details of manufacturer or importer
Manufacturer
SE Tylose GmbH & Co. KG
Kasteler Straße 45
Wiesbaden 65203
Germany
T +49 611 962 6309
product.safety@setylose.com - www.setylose.com

Importing department
Customer Service / Sales
T +49 611 962 6325
reiner.posprich@setylose.com

1.5. Emergency phone number
Emergency number: Emergency CONTACT Australia (24-Hour-Number): Infotrac/GBK GmbH +61-280735031
Customer ID: 102867

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical
Classification according to the model Work Health and Safety Regulations (WHS Regulations)
Not classified

2.2. GHS Label elements, including precautionary statements
No labelling applicable

2.3. Other hazards which do not result in classification
Other hazards not contributing to the classification: Dust may form explosive mixture in air. Handle in accordance with good industrial hygiene and safety practice.
Tylose HA 40 YP2_D
Safety Data Sheet
according to the Model Work Health and Safety Regulations
SDS No: 10896-0094

SECTION 3: Composition and information on ingredients

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.

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS-No.</th>
<th>%</th>
<th>Classification according to the model Work Health and Safety Regulations (WHS Regulations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose, 2-hydroxyethyl ether, retarded</td>
<td>9004-62-0</td>
<td>&gt; 88</td>
<td>Not classified</td>
</tr>
<tr>
<td>Glyoxal</td>
<td>107-22-2</td>
<td>&lt; 0,01</td>
<td>Acute Tox. 4 (Inhalation), H332</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Sens. 1, H317</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Muta. 2, H341</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>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.

SECTION 4: First aid measures

4.1. Description of necessary 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 you feel unwell, seek medical advice.

4.2. Symptoms caused by exposure

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. Medical attention and special treatment

Treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Unsuitable extinguishing media : No data available.

5.2. Specific hazards arising from the chemical

General measures : Avoid dust formation. Do not breathe dust. Forms slippery surfaces with water.
Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO2).

5.3. Special protective equipment and precautions for fire-fighters

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 materials for containment and cleaning up

Methods for cleaning up: Shovel or sweep up and put in a closed container for disposal. Avoid dust formation.

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.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

Tylose HA 40 YP2_D
Australia - Occupational Exposure Limits: Obey TLV for common dust, if applicable

8.2. Biological Monitoring

No additional information available

8.3. Engineering controls

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

8.4. Individual protection measures, such as personal protective equipment (PPE)

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

Eye protection: Not required for normal conditions of use

Skin and body protection: Wear suitable protective clothing

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

<table>
<thead>
<tr>
<th>Device</th>
<th>Filter type</th>
<th>Condition</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breathing apparatus with filter</td>
<td>Type P1</td>
<td>Short term exposure</td>
<td></td>
</tr>
<tr>
<td>Environmental exposure controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other information</td>
<td></td>
<td>Avoid release to the environment. Do not eat, drink or smoke when using this product. Wash hands immediately after handling the product. Do not breathe dust.</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 9: Physical and chemical properties

- Physical state: Solid
- Appearance: Powder
- Colour: whitish
- Odour: characteristic
- Odour threshold: No data available
- pH: 5.5 – 810g/l
- Relative evaporation rate (butylacetate=1): Not specifically applicable
- Melting point / Freezing point:
  - Melting point: Not specifically applicable
  - Freezing point: Not specifically applicable
- Boiling point: Not specifically applicable
- Flash point: Not specifically applicable
- Auto-ignition temperature: > 120 °C
- Flammability (solid, gas): No data available
- Vapour pressure: Vapour pressure: Not specifically applicable
- Relative density:
  - Relative density: Not specifically applicable
- Density:
  - Density: 1.1 – 1.5 g/cm³ 20 °C
  - Relative density: Not specifically applicable
- Solubility: Water: > 10 g/l @ 20°C
- Log Pow: < 0
- Viscosity, kinematic: Not specifically applicable
- Viscosity, dynamic: Not specifically applicable
- Explosive properties: Product is not explosive. Dust may form explosive mixture in air.
- Explosive limits: No data available
- Minimum ignition energy: > 10 mJ
- Fat solubility: No data available
- 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

- Reactivity: The product is non-reactive under normal conditions of use, storage and transport.
- Chemical stability: Stable under normal conditions.
- Possibility of hazardous reactions: No dangerous reactions known under normal conditions of use.
- Conditions to avoid: No decomposition if stored normally.
- Incompatible materials: Strong oxidizing agent.
- Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

- Acute toxicity (oral): Not classified
- Acute toxicity (dermal): Not classified
- Acute toxicity (inhalation): Not classified

Tylose HA 40 YP2_D

- LD50 oral rat: > 2000 mg/kg (OECD 425 method)

Glyoxal (107-22-2)

- LD50 oral: 200 mg/kg
- LC50 Inhalation - Rat (Dust/Mist): 2.44 mg/l/4h
- Skin corrosion/irritation: Not classified
  - pH: 5.5 – 810g/l
Serious eye damage/irritation: Not classified

Respiratory or skin sensitisation: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT-single exposure: Not classified

Glyoxal (107-22-2)

STOT-single exposure: May cause respiratory irritation.

STOT-repeated exposure: Not classified

Aspiration hazard: Not classified

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. Ecotoxicity

Ecology - general: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute): Not classified

Hazardous to the aquatic environment, long-term (chronic): Not classified

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

**Tylose HA 40 YP2_D**

LC50 fish 1: > 500 mg/l (OECD 203 method)

EC50 - Other aquatic organisms [1]: > 1000 mg/l (OECD 209 method)

Log Pow: < 0

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

LC50 fish 1: 86 mg/l

Log Pow: -1.15

12.2. Persistence and degradability

**Tylose HA 40 YP2_D**

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 HA 40 YP2_D**

Log Pow: < 0

Bioaccumulative potential: Not potentially bioaccumulable.

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

Log Pow: -1.15
12.4. Mobility in soil

Glyoxal (107-22-2)

Log Pow: -1.15

12.5. Other adverse effects

Ozone: Not classified
Other adverse effects: No additional information available

Tylose HA 40 YP2_D

Cellulose, 2-hydroxyethyl ether, retarded (9004-62-0)

Fluorinated greenhouse gases: False

Glyoxal (107-22-2)

Fluorinated greenhouse gases: False

SECTION 13: Disposal considerations

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

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>ADG</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</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>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.6. Special precautions for user</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific storage requirement</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Shock sensitivity</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>14.7. Additional information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other information</td>
<td>No supplementary information available</td>
<td></td>
</tr>
<tr>
<td>Transport by road and rail</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Transport by sea</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Air transport</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>
14.8. Hazchem or Emergency Action Code

Hazchem Code: Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Other information on relevant regulations: All components of this mixture are listed on or exempted from AICS

15.2. International agreements

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:
- ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IATA - International Air Transport Association
- IMDG - International Maritime Dangerous Goods
- RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
- DOT - Department of Transport
- TDG - Transportation of Dangerous Goods
- GHS - Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
- IARC - International Agency for Research on Cancer
- vPvB - Very Persistent and Very Bioaccumulative
- PBT - Persistent Bioaccumulative Toxic
- PNEC - Predicted No-Effect Concentration
- CAS - CAS (Chemical Abstracts Service) number
- IBC - Code - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
- ATE - Acute Toxicity Estimate
- CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
- BCF - Bioconcentration factor
- MARPOL 73/78 - MARPOL 73/78: International Convention for the Prevention of Pollution From Ships
- ADG - Transport of Australian Dangerous Goods

Revision date: 14/06/2019

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-statements

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Inhalation)</th>
<th>Acute toxicity (inhal.), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage/eye irritation, Category 2A</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>

14/06/2019 (Revision date)
Full text of H-statements

<table>
<thead>
<tr>
<th>H315</th>
<th>Causes skin irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H341</td>
<td>Suspected of causing genetic defects</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.