According to EC-Regulation 1907/2006 (REACH)

SAFETY DATA SHEET

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

1.1. Product identifier
   - Trade name: Dextran Powder
   - Product no.: -
   - REACH registration number: -
   - Other means of identification: -

1.2. Relevant identified uses of the substance or mixture and uses advised against
   - Relevant identified uses of the substance or mixture: Active pharmaceutical ingredient for pharmaceutical preparations and for other industrial use
   - Uses advised against: -
     - The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet
   - Company and address:
     - Pharmacosmos
     - A/S Roervangsvej
     - 30 DK-4300 Holbaek Denmark
     - T: +45 5948 5959
     - F: +45 5948 5960
   - Contact person:
     - Lise Larsen
   - E-mail: info@pharmacosmos.com
   - SDS date: 01-12-2014
   - SDS Version: 1.0

1.4. Emergency telephone number
   - +45 5948 5959
   - See section 4 “First aid measures”

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
   - This product is not classified as dangerous.
   - See full text of H/R-phrases in section 2.2.
   - DPD/DSD Classification:
     - -

2.2. Label elements
   - Hazard pictogram(s):
     - -
   - Signal word:
     - -
   - Hazard statement(s):
     - -
According to EC-Regulation 1907/2006 (REACH)

<table>
<thead>
<tr>
<th>Safety statement(s)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>-</td>
</tr>
<tr>
<td>Prevention</td>
<td>-</td>
</tr>
<tr>
<td>Response</td>
<td>-</td>
</tr>
<tr>
<td>Storage</td>
<td>-</td>
</tr>
<tr>
<td>Disposal</td>
<td>-</td>
</tr>
</tbody>
</table>

**Identity of the substances primarily responsible for the major health hazards**

Dextran. CAS no.: 9004-54-0

**2.3. Other hazards**

**Additional labelling**
-  
**Additional warnings**
-  
**VOC**

**SECTION 3: Composition/information on ingredients**

**3.1/3.2. Substances**

- **NAME:** Dextran
- **IDENTIFICATION NOS.:** CAS-no: 9004-54-0 EC-no: 232-677-5
- **CONTENT:** 95-100%
- **DSD CLASSIFICATION:** 
- **CLP CLASSIFICATION:** NA

(*) See full text of H/R-phrases in chapter 16. Occupational exposure limits are listed in section 8, if these are available.

**Other informations**

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor, if in doubt about the injured person’s condition or if the symptoms continue. Never give an unconscious person water or similar.

**Inhalation**

Get the person into fresh air and stay with them.

**Skin contact**

Remove contaminated clothing and shoes at once. Skin that has come in contact with the material must be washed thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

**Eye contact**

Remove contact lenses. Flush eyes immediately with plenty of water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. If irritation continues, contact a doctor.

**Ingestion**

Give the person plenty to drink and stay with the person. If the person feels unwell, contact a doctor immediately and take this safety data sheet or the label from the product with you. Do not induce vomiting unless recommended by the doctor. Hold head facing down so that no vomit runs back into the mouth and throat.

**Burns**

Rinse with water until the pain stops and continue for 30 minutes.

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

No special

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

No special

**Information to medics**

Bring this safety data sheet.
According to EC-Regulation 1907/2006 (REACH)

SECTION 5: Firefighting measures

5.1. Extinguishing media
Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Water jets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture
If the product is exposed to high temperatures, as in the case of fire, dangerous catabolic substances are produced. These are: Carbon oxides. Fire will result in thick black smoke. Exposure to catabolic products can damage your health. Fire fighters should use proper protection gear. Closed containers, which are exposed to fire, should be cooled with water. Do not let fire-extinguishing water run into sewers and other water courses.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and protective clothing to prevent contact.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
No specific requirements.

6.2. Environmental precautions
No specific requirements.

6.3. Methods and material for containment and cleaning up
Sweep up spills carefully. Use water sprays or ventilated evacuation systems to prevent dust. Cleaning should be done as far as possible using normal cleaning agents. Solvents should be avoided.

6.4. Reference to other sections
See section on “Disposal considerations “ with regard to the handling of waste. See section on ‘Exposure controls/personal protection’ for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
See section on ‘Exposure controls/personal protection’ for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities
Always store in containers of the same material as the original.

Storage temperature
Room temperature 15 to 30°C at a relative humidity of 20-80%

7.3. Specific end use(s)
This product should only be used for applications described in Section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL
No data available

DNEL / PNEC
No data available.

8.2. Exposure controls
No control is necessary if the product is used in a normal way.

General recommendations
Observe general occupational hygiene.

Exposure scenarios
If there is an appendix to this safety data sheet, the indicated exposure scenarios must be complied.

Exposure limits
There are no maximum exposure limits for the substances contained in this product.

Appropriate technical measures
Take ordinary precautions when using the product. Avoid inhalation of gas or dust.

Hygiene measures
Whenever you take a break in using this product and when you have finished using it, all exposed areas of
According to EC-Regulation 1907/2006 (REACH)

the body must be washed. Always wash hands, forearms and face.

**Measures to avoid environmental exposure**

No specific requirements.

**Individual protection measures, such as personal protective equipment**

**Generally**

Only CE-marked personal protection equipment should be used. Use only CE marked protective equipment.

**Respiratory Equipment**

If the ventilation at the work place is not sufficient, use a half or whole mask with an appropriate filter or an air-supplied respiratory protector. The choice depends on the concrete work situation and how long you will be using the product.

**Skin protection**

No specific requirements.

**Hand protection**

No specific requirements.

**Eye protection**

Use face shield. Use safety glasses with a side shield as an alternative.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Colour</th>
<th>Odour</th>
<th>pH</th>
<th>Viscosity</th>
<th>Density (g/cm³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powder</td>
<td>White</td>
<td>None</td>
<td>4.5-7.0</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Phase changes**

<table>
<thead>
<tr>
<th>Melting point (°C)</th>
<th>Boiling point (°C)</th>
<th>Vapour pressure (mm Hg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Data on fire and explosion hazards**

<table>
<thead>
<tr>
<th>Flashpoint (°C)</th>
<th>Ignition (°C)</th>
<th>Self ignition (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Explosion limits (Vol %)</th>
<th>Oxidizing properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Solubility**

<table>
<thead>
<tr>
<th>Solubility in water</th>
<th>n-octanol/water coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble</td>
<td>-</td>
</tr>
</tbody>
</table>

**9.2. Other information**

<table>
<thead>
<tr>
<th>Solubility in fat</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available

#### 10.2. Chemical stability

The product is stable under the conditions, noted in the section on “Handling and storage”.

#### 10.3. Possibility of hazardous reactions

No special

#### 10.4. Conditions to avoid

No special

#### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reductants agents.

#### 10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.
According to EC-Regulation 1907/2006 (REACH)

**SECTION 11: Toxicological information**

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Substance</th>
<th>Species</th>
<th>Test</th>
<th>Route of exposure</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No data available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin corrosion/irritation</th>
<th>No data available.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/irritation</td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
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<td></td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td>Long term effects</td>
<td>No special</td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 12: Ecological information**

12.1. Toxicity

<table>
<thead>
<tr>
<th>Substance</th>
<th>Species</th>
<th>Test</th>
<th>Test duration</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Biodegradability</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>Potential bioaccumulation</th>
<th>LogPow</th>
<th>BFC</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No special

**SECTION 13: Disposal considerations**

13.1. Waste treatment methods

This product is not covered by the regulations on dangerous waste.

**Waste**

- **EWC code**
- **Specific labelling**
- **Contaminated packing**

No specific requirements.

**SECTION 14: Transport information**
According to EC-Regulation 1907/2006 (REACH)

Not listed as dangerous goods under ADR and IMDG regulations.

14.1 – 14.4

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>14.1. UN number</th>
<th>14.2. UN proper shipping name</th>
<th>14.3. Transport hazard class(es)</th>
<th>14.4. Packing group</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>UN-no.</td>
<td>Proper Shipping Name</td>
<td>Class</td>
<td>PG*</td>
<td></td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>UN-no.</td>
<td>Proper Shipping Name</td>
<td>Class</td>
<td>PG*</td>
<td></td>
</tr>
</tbody>
</table>

14.5. Environmental hazards

- 

14.6. Special precautions for user

- 

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

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

Restrictions for application

- 

Demands for specific education

- 

Additional information

- 

Sources

EC regulation 1907/2006 (REACH)
Directive 2000/532/EC
EC Regulation 1272/2008 (CLP)

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H/R-phrases as mentioned in section 3

- 

The full text of identified uses as mentioned in section 1

- 

Other symbols mentioned in section 2

- 

Other

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version)) is marked with a blue triangle.

The safety data sheet is validated by clan/chymeia

Date of last essential change
(First cipher in SDS version)

28-11-2014

Date of last minor change
(Last cipher in SDS version)

01-12-2014