Section 1. Chemical Product and Company Identification

Product No. R30852701
Trade name Phytohaemagglutinin REAGENT GRADE
Manufacturer Oxoide Limited
  Wade Road
  Basingstoke
  Hants RG24 8PW
  ENGLAND
  Tel: + 44 (0) 1256 841144
  Fax: + 44 (0) 1256 463888

Section 2. Hazards Identification

Most Important Hazards Not classified as hazardous.
Human health hazards - Skin Material may cause slight irritation on prolonged or repeated contact.
Human health hazards - Ingestion A large dose may have the following effects:- diarrhoea, nausea, vomiting.

Section 3. Composition, Information on Ingredients

Preparation - Hazardous ingredients (Europe)

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Concentration</th>
<th>Classification</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymyxin B Sulphate</td>
<td>1405-20-5</td>
<td>&lt; 25 % w/w</td>
<td>Xn - Harmful.</td>
<td>R22- Harmful if swallowed.</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

First Aid - Eyes Wash out eye with plenty of water. Obtain medical attention if soreness or redness persists.
First Aid - Skin Wash skin with soap and water.
First Aid - Ingestion Wash out mouth with water. Have victim drink 1-3 glasses of water to dilute stomach contents.
First Aid - Inhalation Remove from exposure. Seek medical attention if you feel unwell.

Section 5. Fire Fighting Measures

Extinguishing Media - Suitable Use water spray, foam, dry chemical or carbon dioxide.
Protection of fire-fighters Be sure to use an approved/certified respirator or equivalent.

Section 6. Accidental Release Measures

Personal Precautions Wear appropriate protective clothing. Safety glasses or chemical goggles to EN166, 167 and 168. Disposable vinyl gloves.
Spill Sweep up into suitable containers for recovery or disposal.
SAFETY DATA SHEET
Phytohaemagglutinin REAGENT GRADE

Date of issue - 08/09/2009.  R30852701

Section 7. Handling and Storage
Handling  Avoid contact with eyes, skin and clothing.
Storage  Store in a refrigerator at 2 to 8 °C (36 to 46° F).

Section 8. Exposure Controls, Personal Protection
Protective Measures - Respiratory  None required; however, use of adequate ventilation is good industrial practice.
Protective Measures - Hands  Disposable vinyl gloves.
Protective Measures - Eyes  Recommended: Safety glasses or chemical goggles to EN166, 167 and 168.
Protective Measures - Body  Lab coat.

Section 9. Physical and Chemical Properties
Physical state  Pellets.
Colour  White.
pH  6.4 - 6.6
Solubility - Water  Soluble
Flammability  Not combustible.

Section 10. Stability and Reactivity
Stability  Stable under recommended storage and handling conditions (see section 7).
Hazardous decomposition products  carbon oxides (CO, CO2)

Section 11. Toxicological Information
Acute toxicity  Low order of acute toxicity.
Oral LD50 (rat) > 2000 mg/kg.
Dermal LD50 (rabbit) > 2000 mg/kg.
Inhalation LC50 (rat) > 20 mg/litre/4h.

Eye irritation  The degree of irritation was insufficient to warrant labelling as an eye irritant.
Skin irritation  The degree of irritation was insufficient to warrant labelling as a skin irritant.

Section 12. Ecological Information
Ecotoxicity  No relevant studies identified.

Section 13. Disposal Considerations
Disposal considerations  Non-hazardous waste  Dispose of according to all federal, state and local applicable regulations.
Container information  Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate.
Section 14. Transport Information

<table>
<thead>
<tr>
<th>UN</th>
<th>UN number</th>
<th>Not regulated.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>Subsidiary Risk</td>
<td>-</td>
</tr>
<tr>
<td>IATA</td>
<td>Subsidiary Risk</td>
<td>-</td>
</tr>
</tbody>
</table>

Section 15. Regulatory Information

<table>
<thead>
<tr>
<th>EC Classification</th>
<th>This preparation is not classified as dangerous according to the EC Directive 88/379/EEC.</th>
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</thead>
<tbody>
<tr>
<td>Regulatory Lists (United States)</td>
<td>Not on TSCA list.</td>
</tr>
<tr>
<td>United States - Classification</td>
<td>Not classified.</td>
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<tr>
<td>Regulatory Lists (Canada)</td>
<td>No products were found.</td>
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<tr>
<td>WHMIS (Classification)</td>
<td>Not controlled under WHMIS (Canada).</td>
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Section 16. Other Information

<table>
<thead>
<tr>
<th>MSDS first issued</th>
<th>07/03/2005</th>
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<tbody>
<tr>
<td>MSDS data revised</td>
<td>08/09/2009</td>
</tr>
<tr>
<td>Revisions Highlighted</td>
<td>Date of issue</td>
</tr>
<tr>
<td>Notes</td>
<td>Classification and labelling have been performed according to EU directives 67/548/EEC, 1999/45/EC, including amendments and the intended use.</td>
</tr>
</tbody>
</table>