SAFETY DATA SHEET
PROTEIN PREPARATION

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

1.1. Product identifier

Product name: PROTEIN PREPARATION

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

Identified uses: For research use only.

1.3. Details of the supplier of the safety data sheet

Supplier:
Web: www.bio-rad-antibodies.com
Bio-Rad
Endeavour House
Langford Business Park
Kidlington
Oxford
OX5 1GE
Tel. +44 (0)1865 852700
antibody_safetydatasheets@bio-rad.com

Contact person: Technical Services Manager

1.4. Emergency telephone number

Emergency telephone: +1 7037415970 (CHEMTREC)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical hazards: Not Classified
Health hazards: Not Classified
Environmental hazards: Not Classified

2.2. Label elements

Hazard statements: NC Not Classified

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>GLYCEROL</th>
<th>30-60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 56-81-5</td>
<td>EC number: 200-289-5</td>
</tr>
</tbody>
</table>

Classification: Not Classified

Classification (67/548/EEC or 1999/45/EC): -

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.
PROTEIN PREPARATION

Composition comments
No other ingredients, including those with occupational exposure limits, present above the level of disclosure

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Due to the small packaging, the risk of inhalation is minimal. If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion
Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues. Due to the small packaging, the risk of ingestion is minimal.

Skin contact
Due to the small packaging, the risk of skin contact is minimal. Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if any discomfort continues.

Eye contact
Due to the small packaging, the risk of eye contact is minimal. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Inhalation
May cause cause coughing or mild irritation.

Ingestion
May cause discomfort if swallowed.

Skin contact
Prolonged skin contact may cause redness and irritation.

Eye contact
May cause temporary eye irritation.

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

Notes for the doctor
No specific recommendations.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards
There are no known reactivity hazards associated with this product. No unusual fire or explosion hazards noted.

Hazardous combustion products
Does not decompose when used and stored as recommended.

5.3. Advice for firefighters

Protective actions during firefighting
No specific firefighting precautions known.

Special protective equipment for firefighters
Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate.

6.2. Environmental precautions
PROTEIN PREPARATION

Environmental precautions
Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up
Absorb spillage with non-combustible, absorbent material. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections
Reference to other sections
Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Usage precautions
Avoid spilling. Avoid contact with skin and eyes. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities
Storage precautions
Keep only in the original container. Store at specified temperature. Refer to product label.

Storage class
Refer to product datasheet.

7.3. Specific end use(s)
Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters
Occupational exposure limits
GLYCEROL
Long-term exposure limit (8-hour TWA): WEL 10 mg/m³
WEL = Workplace Exposure Limit

8.2. Exposure controls

Protective equipment

Appropriate engineering controls
Provide adequate ventilation. Avoid inhalation of vapours and spray/mists. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

Other skin and body protection
Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.

Hygiene measures
Provide eyewash station. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

Respiratory protection
No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.
SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance
Solid or liquid (may vary).

Colour
Various colours.

Odour
No characteristic odour.

Melting point
Not determined.

Initial boiling point and range
<100 @°C @ 760 mm Hg

Flash point
Not applicable.

Evaporation rate
Not determined.

Upper/lower flammability or explosive limits
Not applicable.

Vapour pressure
Not determined.

Vapour density
Not determined.

Relative density
Not determined.

Solubility(ies)
Soluble in water.

Partition coefficient
Not determined.

Auto-ignition temperature
Not determined.

Decomposition Temperature
Not determined.

Viscosity
Not determined.

Explosive properties
Not determined.

Oxidising properties
Not determined.

9.2. Other information

Other information
None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity
There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability
Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions
Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid
Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid
Strong acids.

10.6. Hazardous decomposition products
### PROTEIN PREPARATION

<table>
<thead>
<tr>
<th>Hazardous decomposition products</th>
<th>Does not decompose when used and stored as recommended.</th>
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</thead>
</table>

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Toxicological effects</th>
<th>No information available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - oral</td>
<td></td>
</tr>
<tr>
<td>Notes (oral LD₅₀)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td></td>
</tr>
<tr>
<td>Human skin model test</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Extreme pH</td>
<td>7.2</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Genotoxicity - in vitro</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Reproductive toxicity - fertility</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Specific target organ toxicity - single exposure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>STOT - single exposure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Specific target organ toxicity - repeated exposure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>STOT - repeated exposure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

#### Inhalation
- Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

#### Ingestion
- May cause discomfort if swallowed.

#### Skin contact
- Liquid may irritate skin.

#### Eye contact
- Vapour or spray in the eyes may cause irritation and smarting.

#### Acute and chronic health hazards
- Because of the product's quantity and composition, the health hazard is regarded as low.

#### Route of exposure
- Ingestion. Skin and/or eye contact

### SECTION 12: Ecological Information

#### Ecotoxicity
- There are no data on the ecotoxicity of this product.

#### 12.1. Toxicity

<table>
<thead>
<tr>
<th>Acute aquatic toxicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - fish</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability
PROTEIN PREPARATION

Persistence and degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

Partition coefficient

Not determined.

12.4. Mobility in soil

Mobility

The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

No information available

12.6. Other adverse effects

Other adverse effects

Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

Road transport notes

Not classified.

Rail transport notes

Not classified.

Sea transport notes

Not classified.

Air transport notes

Not classified.

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.
PROTEIN PREPARATION

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

EU legislation

Guidance
Workplace Exposure Limits EH40.
Approved Classification and Labelling Guide (Sixth edition) L131.
Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information
Only trained personnel should use this material.

Revision date 20/09/2018
Revision 3
Supersedes date 06/04/2016
SDS number 10260
Risk phrases in full Not classified.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.