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>&lt;60%</th>
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<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.
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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. Get medical attention if any discomfort continues.

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

Inhalation
May 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
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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
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Hazardous decomposition products
Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects
No information available.

Acute toxicity - oral
Notes (oral LD₅₀)
Not determined.

Skin corrosion/irritation
Human skin model test
Not determined.

Extreme pH
7.2

Serious eye damage/irritation
Serious eye damage/irritation
Not determined.

Germ cell mutagenicity
Genotoxicity - in vitro
Not determined.

Carcinogenicity
Carcinogenicity
Not determined.

Reproductive toxicity
Reproductive toxicity - fertility
Not determined.

Specific target organ toxicity - single exposure
STOT - single exposure
Not determined.

Specific target organ toxicity - repeated exposure
STOT - repeated exposure
Not determined.

Aspiration hazard
Aspiration hazard
Not determined.

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

Acute aquatic toxicity
Acute toxicity - fish
Not determined.

12.2. Persistence and degradability
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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.
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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

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
4

Supersedes date
06/04/2016

SDS number
10158

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.