SAFETY DATA SHEET
ANTIBODY PREPARATION

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

1.1. Product identifier
Product name
ANTIBODY 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

Human health
Contains a substance/ a group of substances that may cause damage to organs through prolonged or repeated exposure.

Environmental
The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

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
ANTIBODY PREPARATION

GLYCEROL

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification (67/548/EEC or 1999/45/EC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Classified</td>
<td>-</td>
</tr>
</tbody>
</table>

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

**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.
ANTIBODY PREPARATION

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
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. Avoid the formation of mists.

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.
## ANTIBODY PREPARATION

### 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.

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### SECTION 9: Physical and Chemical Properties

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Solid or liquid (may vary).</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>Various colours.</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>No characteristic odour.</td>
</tr>
<tr>
<td><strong>Odour threshold</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>pH (concentrated solution): 7.4</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Initial boiling point and range</strong></td>
<td>&lt;100 °C @ 760 mm Hg</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Evaporation factor</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Other flammability</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Bulk density</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td>Soluble in water.</td>
</tr>
<tr>
<td><strong>Partition coefficient</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>No unusual fire or explosion hazards noted.</td>
</tr>
<tr>
<td><strong>Explosive under the influence of a flame</strong></td>
<td>Not considered to be explosive.</td>
</tr>
<tr>
<td><strong>Oxidising properties</strong></td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

#### 9.2. Other information

Other information: None.
# ANTIBODY PREPARATION

## 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. Strong oxidising agents.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products**

Does not decompose when used and stored as recommended.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Skin corrosion/irritation**

- **Human skin model test**: Not determined.
- **Extreme pH**: 7.2

**Serious eye damage/irritation**

- Not determined.

**Germ cell mutagenicity**

- **Genotoxicity - in vitro**: Not determined.
- **Genotoxicity - in vivo**: 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**: No data available.

**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.
ANTIBODY PREPARATION

Skin contact  Liquid may irritate skin.
Eye contact   Vapour or spray in the eyes may cause irritation and smarting.
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
Toxicity  Not determined.

Ecological information on ingredients.

THIOMERSAL

Acute aquatic toxicity
LEₐ₅₀ 0.1 < L(E)ₐ₅₀ ≤ 1

M factor (Acute)  1

Chronic aquatic toxicity
M factor (Chronic)  1

12.2. Persistence and degradability
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  The product contains a substance which is toxic to aquatic organisms. However, at the concentrations present this product does not need to be classified as hazardous for the environment and the effects are not expected to be significant.

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).
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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.

14.7. Transport in bulk according to Annex II of MARPOL 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  01/04/2016
SDS number  10096
**ANTIBODY PREPARATION**

<table>
<thead>
<tr>
<th>Risk phrases in full</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R48/20/21/22 Harmful</td>
<td>danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.</td>
</tr>
<tr>
<td>R51/53 Toxic to aquatic organisms</td>
<td>may cause long-term adverse effects in the aquatic environment.</td>
</tr>
</tbody>
</table>

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.