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 which may damage fertility and the unborn child.

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
Composition comments
No classified ingredients, or those having occupational exposure limits, present above the levels of disclosure.

SECTION 4: First aid measures
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4.1. Description of first aid measures

**General information**
Consult a physician for specific advice. Show this Safety Data Sheet to the medical personnel.

**Inhalation**
Remove person to fresh air and keep comfortable for breathing. If breathing stops, provide artificial respiration. Consult a physician for specific advice.

**Ingestion**
Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Get medical attention.

**Skin contact**
Remove contaminated clothing immediately and wash skin with soap and water.

**Eye contact**
Immediately flush with plenty of water or eyewash solution for up to 10 minutes.

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

**General information**
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**Inhalation**
May cause cause coughing or mild irritation.

**Ingestion**
Nausea, vomiting. Diarrhoea. Gastrointestinal symptoms, including upset stomach.

**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. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

**Specific hazards**
No specific precautions due to the small quantities handled. 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

**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

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

DISODIUM TETRABORATE DECAHYDRATE

Long-term exposure limit (8-hour TWA): WEL 5 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
Liquid.
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 Colour | Various colours.
 Odour | No characteristic odour.
 pH | pH (concentrated solution): 8.2
 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 | No unusual fire or explosion hazards noted.
 Oxidising properties | Not determined.

 9.2. Other information
 Other information | None.

SECTION 10: Stability and reactivity

10.1. Reactivity
 Reactivity | No information available

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 oxidising agents. Strong reducing agents.

10.6. Hazardous decomposition products
 Hazardous decomposition products | Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information
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11.1. Information on toxicological effects

Skin corrosion/irritation
Human skin model test Not available.

Extreme pH 7.2

Serious eye damage/irritation
Serious eye damage/irritation Not available.

Respiratory sensitisation
Respiratory sensitisation Not available.

Skin sensitisation
Skin sensitisation Not available.

Germ cell mutagenicity
Genotoxicity - in vitro Not available.
Genotoxicity - in vivo Not available.

Carcinogenicity
Carcinogenicity Not available.

Reproductive toxicity
Reproductive toxicity - fertility Not available.

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

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

Aspiration hazard
Aspiration hazard No data available.

General information Knowledge about health hazard is incomplete. Contains a substance/a group of substances which may damage fertility and the unborn child.

Inhalation May cause respiratory irritation.

Ingestion May cause discomfort if swallowed.

Skin contact May be harmful in contact with skin. May cause irritation.

Eye contact May cause temporary eye irritation. Avoid contact with eyes.

Acute and chronic health hazards Contains a substance/a group of substances which may damage fertility and the unborn child.

Route of exposure Ingestion. Skin and/or eye contact

SECTION 12: Ecological Information

Ecotoxicity The product is not expected to be hazardous to the environment.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish LC50, 72 hours: 178 mg/l, Carassius auratus (Goldfish)
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Acute toxicity - aquatic invertebrates
EC₅₀, 48 hours: 1.085 mg/l, Daphnia magna

Acute toxicity - aquatic plants
IC₅₀, 72 hours: 158 mg/l mg/l, Algae

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).

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

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 data available.

SECTION 16: Other information

General Information
Only trained personnel should use this material.

Revision date
21/09/2018

Revision
3

Supersedes date
01/04/2016

SDS number
10325

Risk phrases in full
R60 May impair fertility.
R61 May cause harm to the unborn child.

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.