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 Repr. 1B - H360FD

Environmental hazards Not Classified

Human health This product is harmful if swallowed. Contains a substance/a group of substances which may damage fertility and the unborn child.

2.2. Label elements

Pictogram

Signal word Danger

Hazard statements H360FD May damage fertility. May damage the unborn child.

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Precautionary statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P405 Store locked up.
P501 Dispose of contents/ container in accordance with national regulations.

Contains DISODIUM TETRABORATE DECAHYDRATE, BORIC ACID

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SUCROSE **5.0%**

CAS number: 57-50-1 EC number: 200-334-9

Classification	Classification (67/548/EEC or 1999/45/EC)
Not Classified	-

DISODIUM TETRABORATE DECAHYDRATE **0.85%**

CAS number: 1303-96-4 EC number: 215-540-4

Classification	Classification (67/548/EEC or 1999/45/EC)
Repr. 1B - H360FD	Repr. Cat. 2;R60,R61

BORIC ACID **<1%**

CAS number: 10043-35-3 EC number: 233-139-2

Classification	Classification (67/548/EEC or 1999/45/EC)
Repr. 1B - H360FD	Repr. Cat. 2;R60,R61

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

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

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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

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.

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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

SUCROSE

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³
Short-term exposure limit (15-minute): WEL 20 mg/m³

DISODIUM TETRABORATE DECAHYDRATE

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³

SODIUM AZIDE

Long-term exposure limit (8-hour TWA): WEL 0.1 mg/m³
Short-term exposure limit (15-minute): WEL 0.3 mg/m³
as NaN3
Sk

WEL = Workplace Exposure Limit
Sk = Can be absorbed through the skin.

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.

Colour Various colours.

Odour No characteristic odour.

pH pH (concentrated solution): 8.2

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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

11.1. Information on toxicological effects

Skin corrosion/irritation

Human skin model test	Not available.

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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)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 1.085 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC_{50}, 72 hours: 158 mg/l mg/l, Algae

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 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

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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	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
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 data available.

SECTION 16: Other information

General information	Only trained personnel should use this material.
Revision date	21/09/2018
Revision	6
Supersedes date	06/04/2016
SDS number	10079
Risk phrases in full	R60 May impair fertility. R61 May cause harm to the unborn child. R22 Harmful if swallowed.
Hazard statements in full	H360FD May damage fertility. May damage 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.