SAFETY DATA SHEET
STREPTAVIDIN CONJUGATED PRODUCT

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

1.1. Product identifier
Product name STREPTAVIDIN CONJUGATED PRODUCT

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

Classification (87/548/EEC or 1999/45/EC) Xn;R22.

Human health This product is harmful if swallowed.

2.2. Label elements
Hazard statements NC Not Classified

Supplementary precautionary statements P270 Do not eat, drink or smoke when using this product.

2.3. Other hazards
No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures
STREPTAVIDIN CONJUGATED PRODUCT

<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>

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

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. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

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

**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 promptly if symptoms occur after washing.

**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. Show this Safety Data Sheet to the medical personnel.

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

**Inhalation**
Upper respiratory irritation.

**Ingestion**
This product is harmful if swallowed.

**Skin contact**
Prolonged skin contact may cause redness and irritation.

**Eye contact**
May cause severe eye irritation.

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

**Notes for the doctor**
No specific recommendations. If in doubt, get medical attention promptly.

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**
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**
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
STREPTAVIDIN CONJUGATED PRODUCT

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
Wear protective clothing as described in Section 8 of this safety data sheet. 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

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.
**STREPTAVIDIN CONJUGATED PRODUCT**

**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**
Colourless.

**Odour**
No characteristic odour.

**pH**
\[ \text{pH (concentrated solution): 8.0} \]

**Melting point**
Not determined.

**Initial boiling point and range**
\[ <100 ^\circ\text{C} @ 760 \text{ mm Hg} \]

**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
STREPTAVIDIN CONJUGATED PRODUCT

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

Hydrocarbons - halogenated. Strong acids.

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

Other health effects

IARC Not Listed.

Acute toxicity - oral

ATE oral (mg/kg)

5,000.0

Skin corrosion/irritation

Human skin model test

Not determined.

Extreme pH

7.2

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

Not determined.

General information

Knowledge about health hazard is incomplete.

Inhalation

May cause respiratory system irritation.

Ingestion

Harmful if swallowed.
STREPTAVIDIN CONJUGATED PRODUCT

Skin contact  Liquid may irritate skin.
Eye contact  Vapour or spray in the eyes may cause irritation and smarting.
Route of exposure  Skin and/or eye contact

Toxicological information on ingredients.

**SODIUM AZIDE**

<table>
<thead>
<tr>
<th>Acute toxicity - oral</th>
<th>ATE oral (mg/kg)</th>
<th>5.0</th>
</tr>
</thead>
</table>

SECTION 12: Ecological Information

12.1. Toxicity

Acute aquatic toxicity

<table>
<thead>
<tr>
<th>Acute toxicity - fish</th>
<th>LC₅₀, 96 hours: Lepomis macrochirus - 0.68 mg/l, Fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - aquatic invertebrates</td>
<td>EC₅₀, 48 hours: Daphnia pulex (Water flea) - 4.2 mg/l, Daphnia magna</td>
</tr>
</tbody>
</table>

Ecological information on ingredients.

**SODIUM AZIDE**

<table>
<thead>
<tr>
<th>Acute aquatic toxicity</th>
<th>LE(C)ₑ₀</th>
<th>0.1 &lt; L(E)₅₀ ≤ 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>M factor (Acute)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Chronic aquatic toxicity</td>
<td>M factor (Chronic)</td>
<td>1</td>
</tr>
</tbody>
</table>

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 harmful 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  Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
STREPTAVIDIN CONJUGATED PRODUCT

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
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.
<table>
<thead>
<tr>
<th><strong>STREPTAVIDIN CONJUGATED PRODUCT</strong></th>
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<tbody>
<tr>
<td><strong>Revision date</strong></td>
</tr>
<tr>
<td><strong>Revision</strong></td>
</tr>
<tr>
<td><strong>Supersedes date</strong></td>
</tr>
<tr>
<td><strong>SDS number</strong></td>
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</tbody>
</table>
| **Risk phrases in full** | Not classified.  
R22 Harmful if swallowed.  
R28 Very toxic if swallowed.  
R32 Contact with acids liberates very toxic gas.  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

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.