



# SAFETY DATA SHEET

According to WHS Regulations

Revision date 10-Jan-2023

Revision Number 1

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

### Product identifier

**Product Name** CONJUGATED AVIDIN/ STREPTAVIDIN - #10225

### Other means of identification

**Safety data sheet number** 10225

**Pure substance/mixture** Mixture

### Recommended use of the chemical and restrictions on use

**Recommended use** For research use only

**Uses advised against** No information available

### Details of manufacturer or importer

#### Corporate Headquarters

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### Manufacturer

Bio-Rad  
Endeavour House  
Langford Business Park  
Kidlington  
Oxford  
OX5 1GE  
United Kingdom  
e-mail:  
antibody\_safetydatasheets@bio-rad.com

#### Legal Entity / Contact Address

Bio-Rad Laboratories Pty Ltd  
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South Granville NSW 2142  
Australia

For further information, please contact

**Technical Service** +61 2 9914 2800 or 1800 224 354  
sales.australia@bio-rad.com

### Emergency telephone number

**24 Hour Emergency Phone Number** CHEMTREC Australia: 61-290372994

**Emergency telephone number** No information available

## SECTION 2: Hazards identification

### GHS Classification

Not classified

### Label elements

#### **Hazard statements**

Not classified

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

**Other hazards which do not result in classification**

Harmful to aquatic life Contains animal source material (Cattle)

**SECTION 3: Composition/information on ingredients****Substance**

Not applicable

**Mixture**

| Chemical name             | CAS No      | Weight-%     |
|---------------------------|-------------|--------------|
| 1,2,3-Propanetriol        | 56-81-5     | 50 - 100     |
| Zinc chloride             | 7646-85-7   | 0.001 - 0.01 |
| Non-hazardous ingredients | Proprietary | Balance      |

**SECTION 4: First aid measures****Description of first aid measures**

|                                   |  |
|-----------------------------------|--|
| <b>General advice</b>             | No hazards which require special first aid measures.   |
| <b>Emergency telephone number</b> | Poisons Information Centre, Australia: 13 11 26<br>Poisons Information Centre, New Zealand: 0800 764 766             |
| <b>Inhalation</b>                 | Remove to fresh air.   |
| <b>Eye contact</b>                | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.<br>Consult a doctor. |
| <b>Skin contact</b>               | Wash skin with soap and water.   |
| <b>Ingestion</b>                  | Rinse mouth thoroughly with water.   |

**Most important symptoms and effects, both acute and delayed**

|                 |                           |
|-----------------|---------------------------|
| <b>Symptoms</b> | No information available. |
|-----------------|---------------------------|

**Indication of any immediate medical attention and special treatment needed**

|                        |                        |
|------------------------|------------------------|
| <b>Note to doctors</b> | Treat symptomatically. |
|------------------------|------------------------|

**SECTION 5: Firefighting measures****Suitable Extinguishing Media**

|                                     |   |
|-------------------------------------|---|
| <b>Suitable Extinguishing Media</b> | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
|-------------------------------------|---|

|                                       |                           |
|---------------------------------------|---------------------------|
| <b>Unsuitable extinguishing media</b> | No information available. |
|---------------------------------------|---------------------------|

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** None known.

**Special protective actions for fire-fighters**

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.  
Use personal protection equipment.

## **SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** See section 8 for more information.

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labelled containers.

**Precautions to prevent secondary hazards**

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## **SECTION 7: Handling and storage**

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Store according to product and label instructions.

**Incompatible materials** Metals.

## **SECTION 8: Exposure controls/personal protection**

**Control parameters**

**Exposure Limits**

| Chemical name                 | Australia   | ACGIH TLV   |
|-------------------------------|---|---|
| 1,2,3-Propanetriol<br>56-81-5 | TWA: 10 mg/m <sup>3</sup>                             |   |
| Zinc chloride<br>7646-85-7    | TWA: 1 mg/m <sup>3</sup><br>STEL: 2 mg/m <sup>3</sup> | STEL: 2 mg/m <sup>3</sup> fume<br>TWA: 1 mg/m <sup>3</sup> fume |

**Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

### Appropriate engineering controls

**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection**                      Wear safety glasses with side shields (or goggles).

**Skin and body protection**                      Wear suitable protective clothing.

**Hand protection**                              Wear suitable gloves.

**Respiratory protection**                      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Environmental exposure controls**                      No information available.

## **SECTION 9: Physical and chemical properties**

### Information on basic physical and chemical properties

**Physical state**                                  Liquid  
**Appearance**                                  Clear to semi-clear  
**Colour**    Varies  
**Odour**    No information available.  
**Odour threshold**                              No information available

| <u>Property</u>                        | <u>Values</u>     | <u>Remarks • Method</u> |
|--|-------------------|-------------------------|
| pH                                     |                   | None known              |
| Melting point / freezing point         | No data available | None known              |
| Boiling point / boiling range          | No data available | None known              |
| Flash point                            | No data available | None known              |
| Evaporation rate                       | No data available | None known              |
| Flammability (solid, gas)              | No data available | None known              |
| Flammability Limit in Air              |                   | None known              |
| Upper flammability or explosive limits | No data available |                         |
| Lower flammability or explosive limits | No data available |                         |
| Vapour pressure                        | No data available | None known              |
| Vapour density                         | No data available | None known              |
| Relative density                       | No data available | None known              |
| Water solubility                       | Soluble in water  |                         |
| Solubility(ies)                        | No data available | None known              |
| Partition coefficient                  | No data available | None known              |
| Autoignition temperature               | 392.78 °C         |                         |
| Decomposition temperature              |                   | None known              |
| Kinematic viscosity                    | No data available | None known              |
| Dynamic viscosity                      | No data available | None known              |
| Explosive properties                   | Not applicable    |                         |
| Oxidising properties                   | Not applicable    |                         |
| <u>Other information</u>               |                   |                         |
| Molecular weight                       | Not applicable    |                         |
| VOC content                            | Not applicable    |                         |

**SECTION 10: Stability and reactivity****Reactivity**

**Reactivity** No information available.

**Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** Avoid contact with metals. This product contains Sodium azide. Sodium azide can react with Copper, Brass, Lead, and solder in piping systems to form explosive compounds and toxic gases.

**Conditions to avoid**

**Conditions to avoid** None known based on information supplied.

**Incompatible materials**

**Incompatible materials** Metals.

**Hazardous decomposition products**

**Hazardous decomposition products** None known based on information supplied.

**SECTION 11: Toxicological information****Acute toxicity****Information on likely routes of exposure****Product Information**

**Inhalation** Specific test data for the substance or mixture is not available.

**Eye contact** Specific test data for the substance or mixture is not available.

**Skin contact** Specific test data for the substance or mixture is not available.

**Ingestion** Specific test data for the substance or mixture is not available

**Symptoms** No information available.

**Numerical measures of toxicity - Product Information**

**Oral LD50** No information available

**Dermal LD50** No information available

**Inhalation LC50** No information available

**Inhalation LC50** No information available

**Component Information**

| Chemical name      | Oral LD50             | Dermal LD50          | Inhalation LC50                          |
|--------------------|-----------------------|----------------------|--|
| 1,2,3-Propanetriol | = 12600 mg/kg ( Rat ) | > 10 g/kg ( Rabbit ) | > 2.75 mg/L ( Rat ) 4 h                  |
| Zinc chloride      | = 1100 mg/kg ( Rat )  | -                    | <= 1975 mg/m <sup>3</sup> ( Rat ) 10 min |

See section 16 for terms and abbreviations

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>         | Based on available data, the classification criteria are not met. |
| <b>Serious eye damage/eye irritation</b> | Based on available data, the classification criteria are not met. |
| <b>Respiratory or skin sensitisation</b> | Based on available data, the classification criteria are not met. |
| <b>Germ cell mutagenicity</b>            | Based on available data, the classification criteria are not met. |
| <b>Carcinogenicity</b>                   | Based on available data, the classification criteria are not met. |
| <b>Reproductive toxicity</b>             | Based on available data, the classification criteria are not met. |
| <b>STOT - single exposure</b>            | Based on available data, the classification criteria are not met. |
| <b>STOT - repeated exposure</b>          | Based on available data, the classification criteria are not met. |
| <b>Aspiration hazard</b>                 | Based on available data, the classification criteria are not met. |

**SECTION 12: Ecological information****Ecotoxicity**

|                                 |  |
|---------------------------------|--|
| <b>Ecotoxicity</b>              | Harmful to aquatic life.   |
| <b>Unknown aquatic toxicity</b> | 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment. |

| Chemical name      | Algae/aquatic plants | Fish   | Toxicity to microorganisms | Crustacea |
|--------------------|----------------------|--|----------------------------|-----------|
| 1,2,3-Propanetriol | -                    | LC50: 51 - 57mL/L (96h, Oncorhynchus mykiss) | -                          | -         |

**Persistence and degradability**

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>Persistence and degradability</b> | No information available. |
|--------------------------------------|---------------------------|

**Bioaccumulative potential**

|                        |                                    |
|------------------------|------------------------------------|
| <b>Bioaccumulation</b> | There is no data for this product. |
|------------------------|------------------------------------|

**Component Information**

| Chemical name      | Partition coefficient |
|--------------------|-----------------------|
| 1,2,3-Propanetriol | -1.75                 |

**Mobility**

|                         |                           |
|-------------------------|---------------------------|
| <b>Mobility in soil</b> | No information available. |
| <b>Mobility</b>         | No information available. |

Other adverse effects

Other adverse effects No information available.

**SECTION 13: Disposal considerations**Waste treatment methods

**Waste from residues/unused products** Flush pipes with water frequently if discarding solutions containing Sodium azide into metal piping systems. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**SECTION 14: Transport information**

**ADG** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**Transport in bulk according to Annex II of MARPOL and the IBC Code**

No information available

**SECTION 15: Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixtureNational regulationsAustralia

See section 8 for national exposure control parameters

**Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)**

Classified as a scheduled poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

**Poison Schedule Number** 6

**National pollutant inventory**

Subject to reporting requirement

| Chemical name             | National pollutant inventory     |
|---------------------------|----------------------------------|
| Zinc chloride - 7646-85-7 | 10 tonne/yr Threshold category 1 |

International Inventories

Contact supplier for inventory compliance status

International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

**SECTION 16: Other information**

**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety

**Revision date** 10-Jan-2023

**Revision Note** Significant changes throughout SDS. Review all sections.

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |
| C       | Carcinogen                  |      |                                  |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Disclaimer**

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**End of Safety Data Sheet**