

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

## SAFETY DATA SHEET

### Bovine Serum Albumin and Streptavidin, freeze-dried powder, no preservative

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

##### 1.1 Product identifier

**Product name:** Bovine Serum Albumin and Streptavidin, freeze-dried powder, no preservative

**Product code:**

001-000-161, 001-000-162, 001-000-173, 016-000-084, 016-000-113, 016-000-114

**SDS #:** 3EU

##### Product description:

001-000-161 Bovine Serum Albumin  
001-000-162 Bovine Serum Albumin  
001-000-173 Bovine Serum Albumin  
016-000-084 Streptavidin  
016-000-113 Streptavidin  
016-000-114 Streptavidin

**Product type:** Freeze-dried powder

**Other means**

**of identification:** None

##### 1.2 Relevant identified uses of the substance or mixture/identifier

For *in vitro* research use only. Not for diagnostic or therapeutic use. This is not a medical device. Contact suppliers for specific applications.

##### 1.3 Details of the supplier of the safety data sheet

###### European Contact

Jackson ImmunoResearch Europe LTD  
Unit 7, Acorn Business Centre  
Oaks Drive, Newmarket,  
Suffolk, CB8 7SY, UK  
T: +44 (0) 1638 782616  
F: +44 (0) 1638 668462  
cuser@jireurope.com  
www.jireurope.com

###### U.S.A. Distributor

Jackson ImmunoResearch Laboratories, Inc.  
872 West Baltimore Pike  
West Grove, PA 19390  
T: 800-367-5296, 610-869-4024  
F: 610-869-0171  
cuser@jacksonimmuno.com  
tech@jacksonimmuno.com  
www.jacksonimmuno.com

**E-mail address of the person responsible for this SDS:** tech@jacksonimmuno.com

##### 1.4 Emergency telephone number

###### Emergency Contact

**Telephone number:** CHEMTREC:  
800-424-9300  
OUTSIDE USA:  
703-527-3887

#### **SECTION 2: Hazards identification**

##### 2.1 Classification of the substance or mixture

**Product definition:** Pure substance

###### Classification according to Directive 1999/45/E [DPD]

###### Europe

The product is not classified as dangerous according to directive 1999/45/EC and its amendments.

**Classification:** Not classified.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

##### 2.2 Label elements

**Hazard symbol or symbols:** None

**Indication of danger:** None

**Risk phrases:** This product is not classified according to EU legislation.

**Safety phrases:** Not applicable.

**Hazardous ingredients:** None.

**Supplemental label elements:** Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings:** Not applicable.

**Tactile warning of danger:** Not applicable.

**2.3 Other hazards**

**Other hazards which do not result in classification:** Not available.

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

**Substance/mixture:** Mixture

Chemical Name	CAS#	EC #	% (w/v)
Bovine serum albumin or Streptavidin	N/A	N/A	100

This substance is not considered to be hazardous.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**Eye contact:** If this product enter the eyes, flush the eyes with gently running water for at least 15 minutes. If inflammation occurs, get medical attention.

**Inhalation:** Vapors of these products are likely to be only water vapors, so no adverse health effects are expected if vapors are inhaled. If irritation occurs, get medical attention.

**Skin contact:** Basic hygiene should prevent any problems. If contact with these products leads to reddening, inflammation, or irritation, flush exposed area with running water and get medical attention.

**Ingestion:** Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Give small quantities of water to drink. Do not induce vomiting unless directed by medical personnel. These products are for *in vitro* research use only, not for household, diagnostic, or therapeutic use. They are not medical devices. If these products are accidentally swallowed, no adverse health effects are expected. However, no special precautions are taken to remove or detect the possible presence of endotoxin or pyrogens. If fever or adverse effects are experienced, get medical attention.

**Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training.

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

**Potential acute health effects**

**Eye contact:** No known significant effects or critical hazards.

**Inhalation:** No known significant effects or critical hazards.

**Skin contact:** No known significant effects or critical hazards.

**Ingestion:** No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact:** No specific data.

**Inhalation:** No specific data.

**Skin Contact:** No specific data.

**Ingestion:** No specific data.

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

**Notes to physician:** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments:** No specific treatment.

**SECTION 5: Fire-fighting measures**

5.1

**Extinguishing media**

**Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media:** None known.

**5.2 Special hazards arising from the substance or mixture**

**Hazards from the substance or mixture:** In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion products:** Decomposition products may include oxides of carbon, nitrogen, and phosphorus in very small quantities.

**5.3 Advice for fire fighters**

**Special precautions for fire fighters:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire fighters:** Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

**SECTION 6. Accidental release measures**

6.1 Personal

## precautions, protective equipment, and emergency procedures

**For non-emergency personnel:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas.

Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

**For emergency responders:** If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See Section 8 also for additional information on hygiene measures.

**6.2 Environmental precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

### 6.3 Methods and materials for containment and cleaning up

**Small spill:** Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water soluble. Alternatively, or if water insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill:** Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material, e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via licensed waste disposal contractor.

**6.4 Reference to other sections:** See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The

information in this section contains generic advice and guidelines. The list of Identified Uses in Section 1 should be consulted for any available use specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

**Protective measures:** Put on appropriate protective equipment (see Section 8).

**Advice on general occupational hygiene:** Eating, drinking, and smoking should be prohibited in areas where material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment entering eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities:** Store at 2-8 ° C under sterile conditions. Store in original container away from incompatible materials (see Section 10) and food and drink. Keep container tightly sealed until ready to use. Prepare working dilution fresh each day. Remove aliquots for dilution and reseal container under sterile conditions. Do not store in unlabeled container. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end uses

**Recommendations:** Not available.

**Industrial sector specific solutions:** Not available.

## SECTION 8: Exposure controls/personal protection

The

information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

**Europe:** No exposure limit value known.

**Recommended monitoring procedures:** If this product contains ingredients with exposure limits, personal, workplace atmosphere, or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for the determination of hazardous substances.

#### Derived effect levels

No DELs available

#### Predicted effect concentrations

No PECs available

### 8.2 Exposure controls

**Appropriate engineering controls:** No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure below any recommended or statutory limits.

#### Individual protection measures

**Hygiene measures:** Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the laboratory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure the eyewash station and safety showers are close to the workstation location.

**Eye/face protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or dusts.

#### Skin protection

**Hand protection:** Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection:** Use a properly-fitted, air-purifying, or air-fed respirator complying with an approved standard if a risk assessment indicates this is a necessity. Respirator selection must be on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

9.1  
Information

### on basic physical and chemical properties

#### Appearance

**Physical state:** Liquid

**Color:** Colorless, as water

**Odor:** Odorless, as water

**Odor threshold:** Not available

**pH:** 7.6

**Melting point/freezing point:** Not available

**Initial boiling point and boiling range:** Not available

**Flash point:** Not available

**Evaporation rate:** Not available

**Flammability:** Not available

**Burning time:** Not available

**Burning rate:** Not available

**Upper/lower flammability or explosive limits:** Not available

**Vapor pressure:** Not available

**Vapor density:** Not available

**Relative density:** Not available

**Solubility(ies):** Soluble in warm and cold water

**Partition coefficient:** n-octanol/water

**Auto-ignition temperature:** Not available

**Decomposition temperature:** Not available

**Viscosity:** Not available

**Explosive properties:** Not available

**Oxidizing properties:** Not available

### 9.2 Other information

No additional information

## SECTION 10: Stability and reactivity

10.1

**Reactivity:** No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability:** The product is stable.

**10.3 Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid:** No specific data.

**10.5 Incompatible materials:** No specific data.

**10.6 Hazardous decomposition products:** Under normal conditions of storage and use, hazardous decomposition products will not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

**Product:** Not established

#### Irritation/Corrosion

**Conclusion/Summary:** Not available.

#### Sensitizer

**Conclusion/Summary:** Not available.

#### Mutagenicity

**Conclusion/Summary:** Not available

#### Carcinogenicity

**Conclusion/Summary:** Not available

#### Reproductive toxicity

**Conclusion/Summary:** Not available

#### Teratogenicity

**Conclusion/Summary:** Not available

**Information on the likely routes of exposure:** Routes of entry anticipated: Oral, Dermal, and Inhalation

#### Potential acute health effects

**Inhalation:** No known significant effects or critical hazards.

**Ingestion:** No known significant effects or critical hazards.

**Skin contact:** No known significant effects or critical hazards.

**Eye contact:** No known significant effects or critical hazards.

#### Symptoms related to the physical, chemical, and toxicological characteristics

**Inhalation:** No specific data

**Ingestion:** No specific data

**Skin contact:** No specific data

**Eye contact:** No specific data

#### Delayed, immediate, and chronic effects from short and long term exposure

##### Short term exposure

**Potential immediate effects:** Not available

**Potential delayed effects:** Not available

##### Long term effects

**Potential immediate effects:** Not available

**Potential delayed effects:** Not available

#### Potential chronic health effects

**Conclusion/Summary:** Not available

General: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

**Other information:** Not available

## SECTION 12: Ecological information

### 12.1 Toxicity

**Conclusion/Summary:** Not available

### 12.2 Persistence and degradability

**Conclusion/Summary:** Not available

### 12.3 Bioaccumulative potential

Not available

### 12.4 Mobility in soil

**Soil/water partition coefficient:** Not available

**Mobility:** Not available

### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable

**vPvB:** Not applicable

**12.6 Other adverse effects:** No known significant effects or critical hazards.

## SECTION 13. Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal:** The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

**Hazardous waste:** Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

#### Packaging

**Methods of disposal:** The generation of waste should be avoided or minimized whenever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions:** This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	Not available	Not available	Not available	Not available
14.2 UN proper shipping name	Not available	Not available	-	-
14.3 Transport hazard class(es)	Not available	Not available	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No	No	No	No
14.6 Special precaution for user	Not available	Not available	Not available	Not available
Additional information	-	-	-	-

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the and the IBC Code:** Not available

## SECTION 15: Regulatory information

### 15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XIV - List of substances subject to authorization**

**Substances of very high concern**

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market, and use of certain dangerous substances, mixtures, and articles:** Not applicable

#### Other EU regulations

**Europe inventory:** Not determined

**Black List Chemicals:** Not listed

**Priority List Chemicals:** Not listed

**Integrated pollution prevention and control list (IPPC) - Air:** Not listed

**IPPC - Water:** Not listed

#### National Regulations

**15.2 Chemical Safety Assessment:** This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

**Abbreviations and acronyms:** ATE = Acute Toxicity Estimate

CLP = Classification, Labelling, and Packaging Regulation [Regulation (EC) No. 1272/2008]

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard Statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Not classified

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Classification	Justification
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### Europe

**Full text of abbreviation H statements:** Not applicable

**Full text of classifications [CLP/GHS]:** Not applicable

**Full text of abbreviated R phrases:** Not applicable

**Full text of classifications[DSD/DPD]:** Not applicable

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**Date of previous issue:** No previous validation

**Version:** 1.01

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.