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MATERIAL SAFETY DATA SHEET

Albumin from Bovine Serum

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Albumin from Bovine Serum Date: 2nd November 2018 Version: Discofinechem4

Company: Discovery Fine Chemicals Ltd

Unit 4A Old Forge Road, Ferndown Ind. Estate Wimborne, Dorset, BH21 7RR, United Kingdom

Telephone: +44 (0)1202 874517 Fax: +44 (0)845 0944 385 E-mail address: info@discofinechem.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a dangerous substance according to GHS.

This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

Hazard Statements- None

Precautionary Statements

P261 Avoid breathing dust

P281 Use personal protective equipment as required.

R Phrases: None

S Phrases:

S.22 Do not breathe dust

S.24/25 Avoid contact with skin and eyes

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Bovine albumin, BSA, Cohn Fraction V

CAS-No.9048-46-8 EC-No. 232-936-2, Index No: - Classification: - Concentration:-

4. FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled - If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact - Wash off with soap and plenty of water.

In case of eye contact - Flush eyes with water as a precaution.

If swallowed - Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed - The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed - no data available

SECTION 5: Firefighting measures 5.1 Extinguishing media

Suitable extinguishing media - Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- **5.2 Special hazards arising from the substance or mixture -** Nature of decomposition products not known.
- 5.3 Advice for firefighters Wear self contained breathing apparatus for fire fighting if necessary.
- 5.4 Further information no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

6.2 Environmental precautions - Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections - For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities - Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C. Light sensitive.

7.3 Specific end use(s) - no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls - General industrial hygiene practice.

Personal protective equipment

Eye/face protection - Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection - Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of -contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril®

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril®

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de,

test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection - Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection - Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure - Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance Form: powder, lyophilized, Colour: off white-beige
- b) Odour no data available
- c) Odour Threshold no data available
- d) pH 4.8 7.5
- e) Melting point/freezing point no data available
- f) Initial boiling point and boiling range no data available
- g) Flash point no data available
- h) Evaporation rate no data available
- i) Flammability (solid, gas) no data available
- j) Upper/lower flammability or explosive limits no data available
- k) Vapour pressure no data available
- I) Vapour density no data available
- m) Relative density no data available
- n) Water solubility slightly soluble
- o) Partition coefficient: n-octanol/water no data available
- p) Auto-ignition temperature no data available
- q) Decomposition temperature no data available
- r) Viscosity no data available
- s) Explosive properties no data available
- t) Oxidizing properties no data available

9.2 Other safety information - no data available

10. STABILITY AND REACTIVITY

- **10.1 Reactivity -** no data available
- **10.2 Chemical stability Stable under recommended storage conditions.**
- 10.3 Possibility of hazardous reactions no data available
- 10.4 Conditions to avoid no data available
- 10.5 Incompatible materials Strong oxidizing agents
- 10.6 Hazardous decomposition products Other decomposition products no data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity - no data available Inhalation: no data available Dermal: no data available

Skin corrosion/irritation - no data available

Serious eye damage/eye irritation - no data available **Respiratory or skin sensitisation -** no data available

Germ cell mutagenicity - no data available

Carcinogenicity - IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity - no data available

Specific target organ toxicity - single exposure - no data available

Specific target organ toxicity - repeated exposure - no data available

Aspiration hazard - no data available

Additional Information - RTECS: Not available

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

SECTION 12: Ecological information

- 12.1 Toxicity no data available
- 12.2 Persistence and degradability no data available
- 12.3 Bio-accumulative potential no data available
- 12.4 Mobility in soil no data available
- **12.5 Results of PBT and vPvB assessment -** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
- 12.6 Other adverse effects no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product - Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging - Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number - ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name- ADR/RID: Not dangerous goods; IMDG: Not dangerous goods

IATA: Not dangerous goods

- 14.3 Transport hazard class(es) ADR/RID: IMDG: IATA: -
- 14.4 Packaging group ADR/RID: IMDG: IATA: -
- 14.5 Environmental hazards ADR/RID: no IMDG Marine pollutant: no IATA: no
- 14.6 Special precautions for user no data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

- 15.1 Safety, health and environmental regulations specific for the substance or mixture no data available
- 15.2 Chemical Safety Assessment For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Further information

Text of H-code(s) and R-phrase(s) mentioned in Section 2

Does not apply

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product.

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