SIGMA-ALDRICH

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 Version 5.6 Revision Date 06.07.2017 Print Date 19.10.2018

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

1.1	Product identifiers Product name :	Bovine Serum Albumin	
	Product Number : Brand : REACH No. : CAS-No. :	05470 Sigma A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline. 9048-46-8	
1.2	Relevant identified uses of the substance or mixture and uses advised against		
	Identified uses :	Laboratory chemicals, Manufacture of substances	
1.3	Details of the supplier of the safety data sheet		
	Company :	Sigma-Aldrich Company Ltd. The Old Brickyard NEW ROAD, GILLINGHAM Dorset SP8 4XT UNITED KINGDOM	
	Telephone:Fax:E-mail address:	+44 (0)1747 833000 +44 (0)1747 833313 eurtechserv@sial.com	
1.4	Emergency telephone number		
	Emergency Phone #	+44 (0)870 8200418 (CHEMTREC)	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Not a hazardous substance or mixture.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Bovine albuminBSA
CAS-No.	: 9048-46-8
EC-No.	: 232-936-2

No components need to be disclosed according to the applicable regulations.

SECTION 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 No data available
- **5.3** Advice for firefighters Wear self-contained breathing apparatus for firefighting 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 No special environmental precautions required.

- **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

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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® (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

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

No special environmental precautions required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: powder		
b)	Odour	No data available		
c)	Odour Threshold	No data available		
d)	рН	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	solubleslightly 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		
Other safety information No data available				

SECTION 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

9.2

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known. 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

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 Bioaccumulative potential** No data available
- 12.4 Mobility in soil No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available Sigma - 05470

SECTION 13: Disposal considerations Waste treatment methods

13.1

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: -UN proper shipping name 14.2 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 Special precautions for user 14.6 No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Chemical safety assessment 15.2

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Further information

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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 with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigmaaldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.