Printing date 05/03/2018

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Reviewed on 09/29/2008

Identification	
Product identifier	SERV/A
Trade name: <u>Albumin bovine Fraction V, Fatty Acid Free</u>	serving scientists
Article number: 11932 CAS Number: 9048-46-8 EC number: 232-936-2 Application of the substance / the mixture Laboratory chemicals	John Star
Details of the supplier of the safety data sheet Manufacturer/Supplier: SERVA Electrophoresis GmbH Carl-Benz-Str. 7 D-69115 Heidelberg Tel.: +49 6221 13840-0 FAX: +49 6221 13840-10 msds.info@serva.de	esis
Information department: Product Safety department Tel.: +49 62 Emergency telephone number: Medical Emergency Information in case of poisoning: Poison Information Center Mainz - Phone: +49 (0) 6131 19240 (advisory service in German or English language)	221 13840-35
Hazard(s) identification	
Classification of the substance or mixture The substance is not classified according to the Globally Harmoni Label elements GHS label elements Void Hazard pictograms Void Signal word Void Hazard statements Void Classification system:	ized System (GHS).
NFPA ratings (scale 0 - 4) Health = 0 Fire = 0 Reactivity = 0	
HMIS-ratings (scale 0 - 4)	
HMIS-ratings (scale $0 - 4$)HEALTH 0 FIRE 0 Fire 0 Reactivity 0	

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3 Composition/information on ingredients

- · Chemical characterization: Substances
- CAS No. Description
- 9048-46-8 Albumins, blood serum • Identification number(s)
- EC number: 232-936-2
- Description:
- **MW:** ca. 67000

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:
- CO_{2} extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. • Special hazards arising from the substance or mixture
- In case of fire, the following can be released: Carbon monoxide and carbon dioxide
- Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.
- Reference to other sections No dangerous substances are released.

7 Handling and storage

- · Handling:
- · Precautions for safe handling Prevent formation of dust.
- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Store in dry conditions.
- Specific end use(s) No further relevant information available.

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	otection
Additional information about des	ign of technical systems: No further data; see item 7.
Control parameters	
	at require monitoring at the workplace: Not required.
	that were valid during the creation were used as basis.
Exposure controls	
Personal protective equipment:	
General protective and hygienic n	
· ·	s for handling chemicals should be followed.
	espiratory protective device recommended.
Protection of hands: The glove material has to be impe	ermeable and resistant to the product/ the substance/ the preparation.
	induction to the glove material can be given for the product/ the preparation.
the chemical mixture.	
Selection of the glove material	on consideration of the penetration times, rates of diffusion and a
degradation	
Material of gloves	
	wes does not only depend on the material, but also on further marks
quality and varies from manufactu Penetration time of glove materia	
	<i>u</i> to be found out by the manufacturer of the protective gloves and has to
observed.	
For the permanent contact of a	n maximum of 15 minutes gloves made of the following materials of
suitable:	
Nitrile rubber, NBR	
Nitrile rubber, NBR Chloroprene rubber, CR	
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses	clothing
Nitrile rubber, NBR Chloroprene rubber, CR	clothing
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses	
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical property	ies
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work	ies
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical property Information on basic physical and General Information Appearance:	ies d chemical properties
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical properts Information on basic physical and General Information Appearance: Form:	ies d chemical properties Crystalline powder
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical propertu Information on basic physical and General Information Appearance: Form: Color:	ies d chemical properties Crystalline powder Whitish
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical propertion Information on basic physical and General Information Appearance: Form: Color: Odor:	ies d chemical properties Crystalline powder Whitish Characteristic
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical property Information on basic physical and General Information Appearance: Form: Color: Odor: pH-value (70 g/l) at 20 °C (68 °F)	ies d chemical properties Crystalline powder Whitish Characteristic
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical property Information on basic physical and General Information Appearance: Form: Color: Odor: pH-value (70 g/l) at 20 °C (68 °F, Change in condition	ies d chemical properties Crystalline powder Whitish Characteristic
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical property Information on basic physical and General Information Appearance: Form: Color: Odor: pH-value (70 g/l) at 20 °C (68 °F) Change in condition Melting point/Melting range:	ies d chemical properties Crystalline powder Whitish Characteristic): 7 Undetermined.
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical property Information on basic physical and General Information Appearance: Form: Color: Odor: pH-value (70 g/l) at 20 °C (68 °F) Change in condition	<i>ies</i> <i>d chemical properties</i> <i>Crystalline powder</i> <i>Whitish</i> <i>Characteristic</i> <i>): 7</i>
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical property Information on basic physical and General Information Appearance: Form: Color: Odor: pH-value (70 g/l) at 20 °C (68 °F, Change in condition Melting point/Melting range: Boiling point/Boiling range:	ies d chemical properties Crystalline powder Whitish Characteristic): 7 Undetermined.
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical property Information on basic physical and General Information Appearance: Form: Color: Odor: pH-value (70 g/l) at 20 °C (68 °F) Change in condition Melting point/Melting range:	ies d chemical properties Crystalline powder Whitish Characteristic): 7 Undetermined. Undetermined.
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical properti Information on basic physical and General Information Appearance: Form: Color: Odor: PH-value (70 g/l) at 20 °C (68 °F, Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point:	ies d chemical properties Crystalline powder Whitish Characteristic D: 7 Undetermined. Undetermined. Not applicable.
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical properti Information on basic physical and General Information Appearance: Form: Color: Odor: pH-value (70 g/l) at 20 °C (68 °F) Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point: Flammability (solid, gaseous):	ies d chemical properties Crystalline powder Whitish Characteristic): 7 Undetermined. Undetermined. Not applicable. Product is not flammable.
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical properti Information on basic physical and General Information Appearance: Form: Color: Odor: PH-value (70 g/l) at 20 °C (68 °F) Change in condition Melting point/Melting range: Boiling point/Melting range: Flash point: Flammability (solid, gaseous): Danger of explosion: Density at 20 °C (68 °F): Solubility in / Miscibility with	ies d chemical properties Crystalline powder Whitish Characteristic): 7 Undetermined. Undetermined. Not applicable. Product is not flammable. Product does not present an explosion hazard. 1.01 g/cm ³ (8.428 lbs/gal)
Nitrile rubber, NBR Chloroprene rubber, CR Eye protection: Safety glasses Body protection: Protective work Physical and chemical properti Information on basic physical and General Information Appearance: Form: Color: Odor: PH-value (70 g/l) at 20 °C (68 °F) Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point: Flammability (solid, gaseous): Danger of explosion: Density at 20 °C (68 °F):	ies d chemical properties Crystalline powder Whitish Characteristic): 7 Undetermined. Undetermined. Not applicable. Product is not flammable. Product does not present an explosion hazard.

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10 Stability and reactivity

- · Reactivity No further relevant informations available
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.
- *Conditions to avoid No further relevant information available.*
- *Incompatible materials:* No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. The substance is not subject to classification.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:
- Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation: Must be specially treated adhering to official regulations.
- · Uncleaned packagings:
- · Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

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• **Recommended cleansing agent:** Water, if necessary with cleansing agents.

Transport information	
UN-Number DOT, ADR, ADN, IMDG, IATA	Void
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Void
Transport hazard class(es)	
DOT, ADR, ADN, IMDG, IATA Class	Void
Packing group DOT, ADR, IMDG, IATA	Void
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
UN "Model Regulation":	Void

15 Regulatory information

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

- Section 355 (extremely hazardous substances): Substance is not listed.
- Section 313 (Specific toxic chemical listings): Substance is not listed.
- · TSCA (Toxic Substances Control Act): Substance is listed.

· Proposition 65 Substance is not listed.

- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Cancerogenity categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Product safety department
- · Contact: +49 6221 13840-35
- Date of preparation / last revision 05/03/2018 / 1

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US

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Abbreviations and acronyms:	(Contd. of page
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer International Transport of Dangerous Goods by Rail)	r (Regulations Concerning t
ICAO: International Civil Aviation Organisation	
PBT: persistent, bioaccumulative, toxic substance (REACH)	
vPvB: very persistent, very bioaccumulative substance (REACH)	
REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals	
CLP: Regulation on classification, labelling and packaging of substances and mixtures	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement	t concerning the Internation
Carriage of Dangerous Goods by Road)	0
IMDG: International Maritime Code for Dangerous Goods	
DOT: US Department of Transportation	
IATA: International Air Transport Association	
ACGIH: American Conference of Governmental Industrial Hygienists	
EINECS: European Inventory of Existing Commercial Chemical Substances	
CAS: Chemical Abstracts Service (division of the American Chemical Society)	
NFPA: National Fire Protection Association (USA)	
HMIS: Hazardous Materials Identification System (USA)	
PBT: Persistent, Bioaccumulative and Toxic	
vPvB: very Persistent and very Bioaccumulative	
NIOSH: National Institute for Occupational Safety	
OSHA: Occupational Safety & Health	
TLV: Threshold Limit Value	
PEL: Permissible Exposure Limit	
REL: Recommended Exposure Limit	
* Data compared to the previous version altered.	