1 Identification

- Product identifier
  - Trade name: Albumin bovine
  - Article number: 11920
  - CAS Number: 9048-46-8
  - EC number: 232-936-2

- Application of the substance / the mixture: Laboratory chemicals

- 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
  - Information department: Product Safety department
    Tel.: +49 6221 13840-35
  - 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)

2 Hazard(s) identification

- Classification of the substance or mixture
  - The substance is not classified according to the Globally Harmonized System (GHS).

- Label elements
  - GHS label elements: Void
  - Hazard pictograms: Void
  - Signal word: Void
  - Hazard statements: Void

- Classification system:
  - NFPA ratings (scale 0 - 4)
    - Health = 0
    - Fire = 0
    - Reactivity = 0
  - HMIS-ratings (scale 0 - 4)
    - Health = 0
    - Fire = 0
    - Reactivity = 0

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: PBT - assessment not available.
    - vPvB: vPvB - assessment not available.

(Contd. on page 2)
Trade name: Albumin bovine

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 wash with water and soap and rinse thoroughly.
  - After eye contact:
    Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing. Consult ophthalmologist in case of complaints.
  - After swallowing:
    Wash out mouth. Drink plenty of water and supply fresh air. Seek medical advice if discomfort occurs.
  - 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
  - Environmental precautions: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  - Pick up mechanically.
  - Dispose contaminated material as waste according to item 13.
- Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- Handling:
- Precautions for safe handling
  Ensure good ventilation/exhaustion at the workplace.
Trade name: Albumin bovine

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 at +2 to +8 °C
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:** Keep receptacle tightly sealed and store in dry conditions.
  - **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    - Keep away from foodstuffs, beverages and feed.
    - Store protective clothing separately.
    - Immediately remove all soiled and contaminated clothing.
    - Avoid contact with the eyes and skin.
    - Wash hands before breaks and at the end of work.

- **Breathing equipment:** Suitable respiratory protective device recommended.
- **Protection of hands:**
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Due to missing tests no recommendation 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 the degradation

- **Material of gloves**
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**
  - The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
  - Nitrile rubber, NBR
  - Chloroprene rubber, CR

- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - Form: Crystalline powder
      - Color: Whitish
      - Odor: Characteristic
    - **pH-value (70 g/l) at 20 °C (68 °F):** 5.2
Trade name: Albumin bovine

- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.

- **Flash point:** Not applicable.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Density at 20 °C (68 °F):** 1.01 g/cm³ (8.428 lbs/gal)

- **Solubility in / Miscibility with Water at 20 °C (68 °F):** 100 g/l

- **Other information**
  - No further relevant information available.

### 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 further relevant informations available.
  - Conditions to avoid: No further relevant information available.
  - Incompatible materials: No further relevant information available.
  - Hazardous decomposition products: In case of fire: See Section 5

### 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 product to reach ground water, water course or sewage system.
    - Results of PBT and vPvB assessment
    - PBT: Not applicable.
Safety Data Sheet
acc. to OSHA HCS

Trade name: Albumin bovine

· 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:
    Disposal of uncleaned packagings must be made according to official regulations in the same manner as the product.
· Recommended cleansing agent: Water, if necessary with cleansing agents.

14 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, ADN Void
  · Class Void
  · ADR, IMDG, IATA Void
  · Class Void
  · Label -
· Packing group
  · DOT, ADR, IMDG, IATA Void
· Environmental hazards:
  · Marine pollutant: No
· Special precautions for user Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 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.

(Contd. on page 6)
Trade name: Albumin bovine

(Contd. of page 5)

- 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 / 4
- Abbreviations and acronyms:
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - 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 concerning the International Carriage of Dangerous Goods by Road)
  - 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.