

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 21.12.2011

Version number 1

Revision: 21.12.2011

## 1 Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

- Trade name: **Dodecylsulfate-Na-salt**
- Synonyma SDS; Sodium laurylsulfate

**SERVA**  
Electrophoresis

- Article number: 20763

- CAS Number:

151-21-3

- EC number:

205-788-1

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

- Application of the substance / the preparation Laboratory chemicals

### 1.3. 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

- 1.4. Emergency telephone number: +49 6131 19240 (university hospital Mainz)

## 2 Hazards identification

### 2.1. Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008



GHS02

Flam. Sol. 2 H228 Flammable solid.



GHS06

Acute Tox. 3 H311 Toxic in contact with skin.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R21/22: Harmful in contact with skin and if swallowed.



Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.



F; Highly flammable

R11: Highly flammable.

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- **Information concerning particular hazards for human and environment:** not applicable
- **Classification system:**  
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

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- **2.2. Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS02, GHS06
- **Signal word** Danger
- **Hazard statements**  
H228 Flammable solid.  
H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.
- **Precautionary statements**  
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- **2.3. Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.

### 3 Composition/information on ingredients

- **3.1. Chemical characterization: Substances**
- **CAS No. Description:**  
151-21-3 sodium dodecyl sulphate
- **Identification number(s):**
- **EC number:** 205-788-1
- **Description:**
- **Empirical formula:** C<sub>12</sub>H<sub>25</sub>O<sub>4</sub>S Na
- **MW:** 288,4

|   |       |
|---|-------|
| · <b>Regulation (EC) No 648/2004 on detergents / Labelling for contents</b> |       |
| anionic surfactants   | ≥ 30% |

### 4 First aid measures

- **4.1. Description of first aid measures**
- **General information** Remove contaminated clothing.
- **After inhalation** Supply fresh air and to be sure call for a doctor.
- **After skin contact** Immediately rinse with water.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing** Drink copious amounts of water and provide fresh air. Call for doctor immediately.
- **Information for doctor**
- **4.2. Most important symptoms and effects, both acute and delayed**  
Coughing

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*Breathing difficulty*

- **4.3. Indication of any immediate medical attention and special treatment needed**  
*No further relevant information available.*

## **5 Firefighting measures**

- **5.1. Extinguishing media**
- **Suitable extinguishing agents**  
*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*
- **5.2. Special hazards arising from the substance or mixture**  
*In case of fire, the following can be released:*  
*Carbon monoxide and carbon dioxide*  
*Sulphur dioxide (SO<sub>2</sub>)*
- **5.3. Advice for firefighters**
- **Protective equipment:** *Wear self-contained respiratory protective device.*
- **Additional information**  
*Collect contaminated fire fighting water separately. It must not enter the sewage system.*

## **6 Accidental release measures**

- **6.1. Personal precautions, protective equipment and emergency procedures**  
*Wear protective clothing.*  
*Ensure adequate ventilation*  
*Avoid formation of dust.*
- **6.2. Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.*
- **6.3. Methods and material for containment and cleaning up:**  
*Dispose contaminated material as waste according to item 13.*
- **6.4. 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**
- **7.1. Precautions for safe handling**  
*Thorough dedusting.*  
*Ensure good ventilation/exhaustion at the workplace.*
- **Information about protection against explosions and fires:**  
*Dust can combine with air to form an explosive mixture.*  
*Keep ignition sources away - Do not smoke.*  
*Protect against electrostatic charges.*
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** *Store only in unopened original receptacles.*
- **Information about storage in one common storage facility:**  
*Do not store together with strong oxidizing agents.*
- **Further information about storage conditions:** *Store in cool, dry conditions in well sealed receptacles.*
- **7.3. 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.*

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- **8.1. 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.
  
- **8.2. Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
Short term filter device:  
Filter P2.
- **Protection of hands:**  
Protective gloves.  
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.
- **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

- **9.1. Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

|         |           |
|---------|-----------|
| Form:   | Powder    |
| Colour: | White     |
| Odour:  | Odourless |
- **pH-value (100 g/l) at 20°C:** 9
- **Change in condition**

|                              |              |
|------------------------------|--------------|
| Melting point/Melting range: | 204 - 207°C  |
| Boiling point/Boiling range: | undetermined |
- **Flash point:** > 150°C
- **Flammability (solid, gaseous)** Highly flammable.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density at 20°C:** 1.1 g/cm<sup>3</sup>
- **Bulk density at 20°C:** 490 - 560 kg/m<sup>3</sup>
- **Solubility in / Miscibility with Water at 20°C:** 150 g/l
- **Segregation coefficient (n-octanol/water):** 1.6 log POW

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· **9.2. Other information** *There are no more data available.*

## 10 Stability and reactivity

- **10.1. Reactivity** *No further relevant informations available*
- **10.2. Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3. Possibility of hazardous reactions**  
*As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion*  
*Reacts with strong oxidizing agents*
- **10.4. Conditions to avoid** *No further relevant information available.*
- **10.5. Incompatible materials:** *No further relevant information available.*
- **10.6. Hazardous decomposition products:**  
*Carbon monoxide and carbon dioxide*  
*Sulphur oxides (SO<sub>x</sub>)*

## 11 Toxicological information

- **11.1. Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

|        |          |                    |
|--------|----------|--------------------|
| Oral   | LD50     | 1288 mg/kg (rat)   |
| Dermal | LD50     | 580 mg/kg (rabbit) |
|        | LC50/96h | 4.5 mg/l (Fish)    |

- **Primary irritant effect:**
- **on the skin:** *Irritant to skin and mucous membranes.*
- **on the eye:** *Irritating effect.*
- **Sensitization:** *No sensitizing effects known.*

## 12 Ecological information

- **12.1. Toxicity**
- **Acquatic toxicity:**  
*No further relevant information available.*
- **EC50/48h** *6 mg/l (Daphnia magna)*
- **12.2. Persistence and degradability**  
*Easily biodegradable*  
*90% (28 d)*
- **Behaviour in environmental systems:**
- **12.3. Bioaccumulative potential**  
*Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.*  
*Distribution coefficient n-octanol/water logP o/w: 1,6*
- **12.4. Mobility in soil** *No further relevant information available.*
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water.*  
*Do not allow product to reach ground water, water course or sewage system.*  
*Danger to drinking water if even small quantities leak into the ground.*
- **12.5. Results of PBT and vPvB assessment**
- **PBT:** *PBT - assessment not available.*
- **vPvB:** *vPvB - assessment not available.*

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· 12.6. Other adverse effects No further relevant information available.

### 13 Disposal considerations

- 13.1. Waste treatment methods
- Recommendation  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

### 14 Transport information

- 14.1. UN-Number  
· ADR, IMDG, IATA UN2926
- 14.2. UN proper shipping name  
· ADR 2926 FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.  
(sodium dodecyl sulphate)  
· IMDG FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.  
(Sodium dodecyl sulphate)  
· IATA Flammable solid, toxic, organic, n.o.s. (Sodium dodecyl sulphate)
- 14.3. Transport hazard class(es)  
· ADR  

  - Class 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
  - Label 4.1+6.1
- IMDG, IATA  

  - Class 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
  - Label 4.1+6.1
- 14.4. Packing group  
· ADR, IMDG, IATA III
- 14.5. Environmental hazards:  
· Marine pollutant: No
- 14.6. Special precautions for user  
Warning: Flammable solids, self-reactive substances and solid desensitised explosives.  
· Danger code (Kemler): 46  
· EMS Number: F-A,S-G
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

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**· Transport/Additional information:****· ADR****· Tunnel restriction code**

E

**· UN "Model Regulation":**UN2926, *FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S., 4.1 (6.1), III***15 Regulatory information**

- **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Water hazard class:** Water hazard class 2 (Assessment by list): hazardous for water.
- **15.2. 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 MSDS:** Product safety department

- **Contact:** +49 6221 13840-35

**· Abbreviations and acronyms:**

*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)*

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*ICAO: International Civil Aviation Organization*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

- **\* Data compared to the previous version altered.**