

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2024

Reviewed on 04/16/2024

1 Identification

- **Product identifier**
- **Trade name:** SERVA Triple Color Protein Standard I
- **Article number:** 39251
- **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:**
Emergency medical information in case of poisoning
Poison Information Center Mainz-Tel: +49 (0) 6131 19240
(Advice in German and English)



2 Hazard(s) identification

- **Classification of the substance or mixture**
The product 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)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

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

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Ready-to-use aqueous protein standard solution

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2024

Reviewed on 04/16/2024

Trade name: SERVA Triple Color Protein Standard I

(Contd. of page 1)

Dangerous components:

3483-12-3	(R*,R*)-1,4-dimercaptobutane-2,3-diol	< 10%
-----------	---------------------------------------	-------

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:**
Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes with running water. Remove existing contact lenses, if possible, and continue rinsing. Consult an ophthalmologist immediately.
- **After swallowing:** Rinse out mouth. Call a doctor immediately.
- **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:**
CO₂ extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear protective clothing.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up**
Dispose contaminated material as waste according to section 13.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Protective Action Criteria for Chemicals**

PAC-1:

1,2,3-Propanetriol	45 mg/m ³
--------------------	----------------------

PAC-2:

1,2,3-Propanetriol	180 mg/m ³
--------------------	-----------------------

PAC-3:

1,2,3-Propanetriol	1,100 mg/m ³
--------------------	-------------------------

- **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

- **Precautions for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2024

Reviewed on 04/16/2024

Trade name: SERVA Triple Color Protein Standard I

(Contd. of page 2)

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Storage temperature: -15 to -25 °C
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store container tightly closed and dry.
- **Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

1,2,3-Propanetriol (10-25%)

PEL	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV	TLV withdrawn-insufficient data human occup. exp.

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Additional information about design of technical systems:** No further data; see section 7.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **Protection of hands:**
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.
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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:**
Natural rubber, NR
Nitrile rubber, NBR
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2024

Reviewed on 04/16/2024

Trade name: SERVA Triple Color Protein Standard I

(Contd. of page 3)

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information:

· Color:	Dark blue
· Odor:	Odorless
· Odor threshold:	Not determined.
· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Undetermined.
· Flammability (solid, gaseous):	Not applicable.
· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	Not applicable.
· Decomposition temperature:	Not determined.
· Viscosity:	
· Kinematic viscosity:	Not determined.
· Dynamic viscosity:	Not determined.
· Solubility in / Miscibility with:	
· Water:	Not determined.
· Partition coefficient (n-octanol/water):	Not determined.
· Vapor pressure:	Not determined.
· Vapor pressure:	Not determined.
· Density:	Not determined.
· Relative density:	Not determined.

· Other information

· Appearance:	
· Form:	Solution
· Important information on protection of health and environment, and on safety:	
· Danger of explosion:	Not determined.
· Solvent content:	
· Organic solvents:	10-25 %
· VOC %:	
· VOC content:	0.00 %

10 Stability and reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No further relevant information available.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** Avoid contact with: strong oxidizing agents, strong bases
- **Hazardous decomposition products:** No further relevant information available.

11 Toxicological information

· Information on toxicological effects

· **Acute toxicity:** Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

3483-12-3 (R*,R*)-1,4-dimercaptobutane-2,3-diol

Oral	LD50	400 mg/kg (rat)
------	------	-----------------

· **on the skin:** Based on available data, the classification criteria are not met.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2024

Reviewed on 04/16/2024

Trade name: SERVA Triple Color Protein Standard I

(Contd. of page 4)

- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - single exposure:**
Based on available data, the classification criteria are not met.
- **Specific target organ toxicity - repeated exposure:**
Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:**
- **Additional ecological information:**
- **General notes:** Water hazard class 2 (Self-assessment): hazardous for water

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Dispose of in accordance with official regulations.
- **Uncleaned packagings:**
- **Recommendation:**
Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.

14 Transport information

- | | |
|----------------------------------|------|
| · UN-Number | Void |
| · DOT, ADR, IMDG, IATA | Void |
| · UN proper shipping name | Void |
| · DOT, ADR, IMDG, IATA | Void |

(Contd. on page 6)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2024

Reviewed on 04/16/2024

Trade name: SERVA Triple Color Protein Standard I

(Contd. of page 5)

- | | |
|--|-----------------|
| · Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Void |
| · Environmental hazards | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.

- Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

- Hazardous Air Pollutants**

None of the ingredients is listed.

- Proposition 65**

None of the ingredients is listed.

- Chemicals known to cause cancer:**

None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- Cancerogenity categories**

- EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- TLV (Threshold Limit Value)**

None of the ingredients is listed.

- NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- GHS label elements** Void

- Hazard pictograms** Void

- Signal word** Void

- Hazard statements** Void

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/16/2024

Reviewed on 04/16/2024

Trade name: SERVA Triple Color Protein Standard I

(Contd. of page 6)

· **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** 04/16/2024

· **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

bw: body weight

UFI: Unique Formula Identifier

ADR: Accord relatif au transport international 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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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