

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.12.2011

Version number 1

Revision: 07.12.2011

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

- **1.1. Product identifier**
- **Trade name:** Solution B for Silver Staining Kit
- **Article number:** 43810
- **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)



SERVA
Electrophoresis

2 Hazards identification

- **2.1. Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC not applicable**
- **Information concerning particular hazards for human and environment:**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
- **2.2. Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **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

- **3.2. Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with harmless additions.
- **Dangerous components:**

| | | | |
|-------------------|---------|--|-------|
| CAS: 64-17-5 | ethanol |  F R11 | 5-15% |
| EINECS: 200-578-6 | |  Flam. Liq. 2, H225 | |

- **Additional information** For the wording of the listed risk phrases refer to section 16.

GB

(Contd. on page 2)

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

Printing date 07.12.2011

Version number 1

Revision: 07.12.2011

Trade name: *Solution B for Silver Staining Kit*

(Contd. of page 1)

4 First aid measures

- **4.1. 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** If symptoms persist consult doctor.
- **Information for doctor**
- **4.2. Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **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**
CO₂, 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** No further relevant information available.
- **5.3. Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **6.1. Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2. Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Dilute with plenty of water.
- **6.3. Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
- **6.4. Reference to other sections**
No dangerous substances are released.
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** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **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.

GB

(Contd. on page 3)

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

Printing date 07.12.2011

Version number 1

Revision: 07.12.2011

Trade name: Solution B for Silver Staining Kit

(Contd. of page 2)

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· 8.1. Control parameters

· **Components with limit values that require monitoring at the workplace:**

64-17-5 ethanol (5-15%)

WEL Long-term value: 1920 mg/m³, 1000 ppm

· **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:** 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.

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 through 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

· **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: | Solution |
| Colour: | Colourless |
| · Odour: | Characteristic |
| · Odour threshold: | Not determined. |

· pH-value: Not determined.

· Change in condition

| | |
|------------------------------|--------------|
| Melting point/Melting range: | undetermined |
| Boiling point/Boiling range: | undetermined |

· Flash point: Not applicable

(Contd. on page 4)

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

Printing date 07.12.2011

Version number 1

Revision: 07.12.2011

Trade name: Solution B for Silver Staining Kit

(Contd. of page 3)

| | |
|---|--|
| · Flammability (solid, gaseous) | <i>Not applicable.</i> |
| · Ignition temperature: | |
| Decomposition temperature: | <i>Not determined.</i> |
| · Self igniting: | <i>Product is not selfigniting.</i> |
| · Danger of explosion: | <i>Product does not present an explosion hazard.</i> |
| · Explosion limits: | |
| Lower: | <i>Not determined.</i> |
| Upper: | <i>Not determined.</i> |
| · Vapour pressure: | <i>Not determined.</i> |
| · Density: | <i>Not determined</i> |
| · Relative density | <i>Not determined.</i> |
| · Vapour density | <i>Not determined.</i> |
| · Evaporation rate | <i>Not determined.</i> |
| · Solubility in / Miscibility with Water: | <i>Fully miscible</i> |
| · Segregation coefficient (n-octanol/water): | <i>Not determined.</i> |
| · Viscosity: | |
| dynamic: | <i>Not determined.</i> |
| kinematic: | <i>Not determined.</i> |
| · Solvent content: | |
| Organic solvents: | <i>10.0 %</i> |
| · VOC %: | <i>10.00 %</i> |
| · VOC g/l: | <i>100.0 g/l</i> |
| · Solids content: | <i>0.7 %</i> |
| · 9.2. Other information | <i>No further relevant information available.</i> |

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** *No dangerous reactions known*
- **10.4. Conditions to avoid** *No further relevant information available.*
- **10.5. Incompatible materials:** *No further relevant information available.*
- **10.6. Hazardous decomposition products:** *No dangerous decomposition products known*

11 Toxicological information

- **11.1. 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:**
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

(Contd. on page 5)

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

Printing date 07.12.2011

Version number 1

Revision: 07.12.2011

Trade name: Solution B for Silver Staining Kit

(Contd. of page 4)

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.

12 Ecological information

- **12.1. Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **12.2. Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **12.3. Bioaccumulative potential** No further relevant information available.
- **12.4. Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (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.
- **12.5. Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **12.6. Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1. Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---|--|
| · 14.1. UN-Number · ADR, IMDG, IATA | Void |
| · 14.2. UN proper shipping name · ADR, IMDG, IATA | Void |
| · 14.3. Transport hazard class(es) · ADR, IMDG, IATA · Class · Label | Void - |
| · 14.4. Packing group · ADR, IMDG, IATA | Void |
| · 14.5. Environmental hazards: · Marine pollutant: | No |
| · 14.6. Special precautions for user | Not applicable. |
| · 14.7. 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. |

GB

(Contd. on page 6)

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

Printing date 07.12.2011

Version number 1

Revision: 07.12.2011

Trade name: Solution B for Silver Staining Kit

(Contd. of page 5)

15 Regulatory information

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

· **National regulations**

· **Technical instructions (air):**

| Class | Share in % |
|-------|------------|
| NK | 5-15 |

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly 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.

· **Relevant phrases**

H225 Highly flammable liquid and vapour.

R11 Highly flammable.

· **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

· *** Data compared to the previous version altered.**

-GB-