

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

Printing date 29.11.2011

Version number 1

Revision: 18.03.2011

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

- **1.1. Product identifier**
- **Trade name:** Propidium iodide
- **Article number:** 33671
- **CAS Number:**  
25535-16-4
- **EC number:**  
247-081-0
- **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**



GHS06

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H331 Toxic if inhaled.



GHS08

Muta. 1B H340 May cause genetic defects.



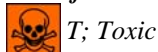
GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

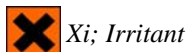
STOT SE 3 H335 May cause respiratory irritation.

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



T; Toxic

R46-23/25: May cause heritable genetic damage. Toxic by inhalation and if swallowed.



Xi; Irritant

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

- **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** GHS06, GHS08**· Signal word** Danger**· Hazard statements***H301 Toxic if swallowed.**H331 Toxic if inhaled.**H315 Causes skin irritation.**H319 Causes serious eye irritation.**H340 May cause genetic defects.**H335 May cause respiratory irritation.***· Precautionary statements***P280 Wear protective gloves/protective clothing/eye protection/face protection.**P201 Obtain special instructions before use.**P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.**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.**P405 Store locked up.***· 2.3. Other hazards****· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.**3 Composition/information on ingredients****· 3.1. Chemical characterization: Substances****· CAS No. Description:***25535-16-4 3,8-diamino-5-[3-(diethylmethylammonio)propyl]-6-phenylphenanthridinium diiodide***· Identification number(s):****· EC number:** 247-081-0**· Description:****· Empirical formula:**  $C_{27}H_{34}N_4I_2$ **· MW:** 668,4**4 First aid measures****· 4.1. Description of first aid measures****· General information** Remove contaminated clothing.**· After inhalation***Supply fresh air.**Call a doctor immediately.***· After skin contact** Immediately rinse with water.**· After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.**· After swallowing***Rinse out mouth and then drink plenty of water.**Call a doctor immediately.***· Information for doctor****· 4.2. Most important symptoms and effects, both acute and delayed** Coughing**· 4.3. Indication of any immediate medical attention and special treatment needed***No further relevant information available.*

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## 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:  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrogen iodide (HI)  
Carbon monoxide and carbon dioxide
- **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.
- **6.3. Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4. Reference to other sections**  
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.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**  
Store only in unopened original receptacles.  
Store at +2 to +8 °C
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Store under lock and key and with access restricted to technical experts or their assistants only.  
This product is hygroscopic.  
Protect from humidity and water.
- **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.
- **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.

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- **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.  
Store protective clothing separately.
- **Breathing equipment:**  
Short term filter device:  
Filter P3.
- **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.
- **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:**  
Nitrile rubber, NBR  
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:**

<b>Form:</b>	Powder
<b>Colour:</b>	Red
<b>Odour:</b>	uncharacteristic
- **Change in condition**

<b>Melting point/Melting range:</b>	220°C
<b>Boiling point/Boiling range:</b>	undetermined
- **Flash point:** Not applicable
- **Flammability (solid, gaseous)** Product is not flammable.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density:** Not determined
- **Solubility in / Miscibility with**

<b>Water:</b>	Soluble
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- **9.2. Other information** There are no more data available.

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### 10 Stability and reactivity

- **10.1. Reactivity**
- **10.2. Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3. Possibility of hazardous reactions** Reacts with 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:**  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrogen iodide (HI)  
Carbon monoxide and carbon dioxide

### 11 Toxicological information

- **11.1. Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Itching
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Muta. 1B

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

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### 14 Transport information

· 14.1. UN-Number · ADR, IMDG, IATA	2811
· 14.2. UN proper shipping name · ADR  · IMDG · IATA	2811 TOXIC SOLID, ORGANIC, N.O.S. (Propidium iodide) TOXIC SOLID, ORGANIC, N.O.S. (Propidium iodide) Toxic solid, organic, n.o.s. (Propidium iodide)
· 14.3. Transport hazard class(es)  · ADR  	     6.1 Toxic substances. 6.1
· IMDG, IATA  	     6.1 Toxic substances. 6.1
· 14.4. Packing group · ADR, IMDG, IATA	II
· 14.5. Environmental hazards: · Marine pollutant:	Not applicable. No
· 14.6. Special precautions for user · Danger code (Kemler): · EMS Number:	Warning: Toxic substances. 60 F-A,S-A
· 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:  · ADR · Tunnel restriction code	   D/E
· UN "Model Regulation":	UN2811, TOXIC SOLID, ORGANIC, N.O.S., 6.1, II

### 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 %
I	80-100
- Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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· **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)*

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

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