

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/03/2018

Reviewed on 08/03/2009

## 1 Identification

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



GHS08

Muta. 2 H341 Suspected of causing genetic defects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms** GHS07, GHS08

- **Signal word** Warning

- **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

Suspected of causing genetic defects.

May cause respiratory irritation.

- **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

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Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

**IF ON SKIN:** Wash with plenty of water.

**IF INHALED:** Remove person to fresh air and keep comfortable for breathing.

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

**IF exposed or concerned:** Get medical advice/attention.

Call a **POISON CENTER**/doctor if you feel unwell.

Specific treatment (see on this label).

**If skin irritation occurs:** Get medical advice/attention.

**If eye irritation persists:** Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **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

· **Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **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. Seek medical advice if discomfort occurs.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** Coughing

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- **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<sub>2</sub> 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:  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrogen iodide (HI)  
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**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation
- **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 item 13.  
Ensure adequate ventilation.
- **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**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Keep respiratory protective device available.
- **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.
- **Specific end use(s)** No further relevant information available.

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## 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.*
  - Immediately remove all soiled and contaminated clothing.*
  - Wash hands before breaks and at the end of work.*
  - Store protective clothing separately.*
  - Avoid contact with the eyes and skin.*
- *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 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*
  - Natural rubber, NR*
- *Eye protection: Safety glasses*
- *Body protection: Protective work clothing*

## 9 Physical and chemical properties

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

<i>Form:</i>	<i>Powder</i>
<i>Color:</i>	<i>dark-red</i>
<i>Odor:</i>	<i>uncharacteristic</i>
- *Change in condition*
  - Melting point/Melting range: 220 °C (428 °F)*
  - Boiling point/Boiling range: 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.*

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- **Solubility in / Miscibility with**  
**Water:** Soluble.
- **Other information** There are no more data available.

## 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 informations available.
- **Conditions to avoid**  
 high temperatures  
 moisture
- **Incompatible materials:**  
 Avoid contact with:  
 Strong oxidizers  
 Strong acids
- **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:**  
 Irritant to skin and mucous membranes.  
 Itching
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **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 undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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

### 13 Disposal considerations

- **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.

### 14 Transport information

- |  |  |
|--|--|
| · <b>UN-Number</b>   | Void   |
| · <b>ADR, IMDG, IATA</b>   | Void   |
| · <b>UN proper shipping name</b>   | Void   |
| · <b>ADR</b>   | 2811 TOXIC SOLID, ORGANIC, N.O.S. (Propidium iodide) |
| · <b>IMDG, IATA</b>  | Void   |
| · <b>Transport hazard class(es)</b>  |  |
| · <b>ADR, IMDG, IATA</b>   | Void   |
| · <b>Class</b>   | Void   |
| · <b>Label</b>   | -  |
| · <b>Packing group</b>   | Void   |
| · <b>ADR, IMDG, IATA</b>   | Void   |
| · <b>Environmental hazards:</b>  |  |
| · <b>Marine pollutant:</b>   | No   |
| · <b>Special precautions for user</b>  | Not applicable.                                      |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.                                      |
| · <b>UN "Model Regulation":</b>  | UN2811, TOXIC SOLID, ORGANIC, N.O.S., 6.1, II        |

### 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 not 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.
- **Carcinogenicity categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **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**  
The substance is classified and labeled according to the Globally Harmonized System (GHS).

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- **Hazard pictograms** GHS07, GHS08
- **Signal word** Warning
- **Hazard statements**
  - Causes skin irritation.
  - Causes serious eye irritation.
  - Suspected of causing genetic defects.
  - May cause respiratory irritation.
- **Precautionary statements**
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - Avoid breathing dust/fume/gas/mist/vapors/spray
  - Wash thoroughly after handling.
  - Use only outdoors or in a well-ventilated area.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - IF ON SKIN: Wash with plenty of water.
  - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - IF exposed or concerned: Get medical advice/attention.
  - Call a POISON CENTER/doctor if you feel unwell.
  - Specific treatment (see on this label).
  - If skin irritation occurs: Get medical advice/attention.
  - If eye irritation persists: Get medical advice/attention.
  - Take off contaminated clothing and wash it before reuse.
  - Store in a well-ventilated place. Keep container tightly closed.
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.
- **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
  - 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
  - Skin Irrit. 2: Skin corrosion/irritation – Category 2
  - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

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*Muta. 2: Germ cell mutagenicity – Category 2*  
*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*  
· **\* Data compared to the previous version altered.**

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