

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

Printing date 29.11.2011

Version number 1

Revision: 29.07.2009

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

- **1.1. Product identifier**
- **Trade name:** Puromycin-2HCl
- **Article number:** 33835
- **CAS Number:**  
58-58-2
- **EC number:**  
200-387-8
- **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**



GHS08

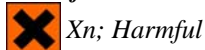
Muta. 2 H341 Suspected of causing genetic defects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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



Xn; Harmful

R22-68: Harmful if swallowed. Possible risk of irreversible effects.

- **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**

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms** GHS07, GHS08

- **Signal word** Warning

- **Hazard statements**

H302 Harmful if swallowed.

H341 Suspected of causing genetic defects.

- **Precautionary statements**

P201 Obtain special instructions before use.

P264 Wash thoroughly after handling.

P281 Use personal protective equipment as required.

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*P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.**P330 Rinse mouth.**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:**  
*58-58-2 (S)-3'-[[2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-deoxy-N,N-dimethyladenosine dihydrochloride*
- **Identification number(s):**
- **EC number:** 200-387-8
- **Description:**
- **Empirical formula:**  $C_{22}H_{29}N_7O_5 \cdot 2 HCl$
- **MW:** 544,4

**4 First aid measures**

- **4.1. Description of first aid measures**
- **General information**  
*Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.*
- **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.*
- **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**  
*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**  
*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 chloride (HCl)*  
*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 clothing.*
- **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.*

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- **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**  
Prevent formation of dust.  
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:** Store at -15 to -25 °C
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in dry conditions.
- **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.
- **8.2. Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.
- **Breathing equipment:**  
Short term filter device:  
Filter P2.
- **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.
- **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  
Nitrile rubber, NBR
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

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## 9 Physical and chemical properties

### · 9.1. Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

Form:	Powder
Colour:	White
Odour:	uncharacteristic

#### · Change in condition

Melting point/Melting range:	168 - 178°C
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

#### · Solubility in / Miscibility with

Water:	Soluble
· 9.2. Other information	No further relevant information available.

## 10 Stability and reactivity

### · 10.1. Reactivity

### · 10.2. Chemical stability

#### · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.  
To avoid thermal decomposition do not overheat.

· 10.3. Possibility of hazardous reactions 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:

Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide and carbon dioxide

## 11 Toxicological information

### · 11.1. Information on toxicological effects

#### · Acute toxicity:

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

Oral	LD50	720 mg/kg (Maus)
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#### · Primary irritant effect:

· on the skin: No irritant effect.

· on the eye: No irritating effect.

· Sensitization: No sensitizing effects known.

#### · CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Muta. 2

## 12 Ecological information

### · 12.1. Toxicity

· Aquatic toxicity: No further relevant information available.

· 12.2. Persistence and degradability No further relevant information available.

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- **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.

**14 Transport information**

- |  |  |
|--|--|
| · <b>14.1. UN-Number</b><br>· ADR, ADN, IMDG, IATA                                     | Void   |
| · <b>14.2. UN proper shipping name</b><br>· ADR, ADN, IMDG, IATA                       | Void   |
| · <b>14.3. Transport hazard class(es)</b><br>· ADR, ADN, IMDG, IATA<br>· Class         | Void   |
| · <b>14.4. Packing group</b><br>· ADR, IMDG, IATA                                      | Void   |
| · <b>14.5. Environmental hazards:</b><br>· <b>Marine pollutant:</b>                    | No   |
| · <b>14.6. Special precautions for user</b>  | Not applicable.                                      |
| · <b>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.                                      |
| · <b>Transport/Additional information:</b>   | Not dangerous according to the above specifications. |
| · <b>UN "Model Regulation":</b>  | -  |

**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 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)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

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

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