1 Identification

· Product identifier

· Product name: Streptavidin-R-Phycoerythrin (ver 6), 0.25 mg; Streptavidin-R-Phycoerythrin (ver 6), 1 mg; Streptavidin-R-Phycoerythrin (ver 6), 10 mg; Streptavidin-R-Phycoerythrin (ver 6), 50 mg

· Product Code: PJRS27-SX, PJRS27-1, PJRS27-10, PJRS27-50

· Application of the substance / the mixture: Reagents and Standards for Analytical Chemical Laboratory Use

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:
  Agilent Technologies, Inc.
  5301 Stevens Creek Blvd
  Santa Clara, CA 95051, USA

· Email: pdl-msds_author@agilent.com

· Phone number: 800-227-9770

· Emergency telephone number: CHEMTREC®: 1-800-424-9300

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

· Precautionary statements
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wash thoroughly after handling.
  Avoid release to the environment.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If swallowed: Call a doctor if you feel unwell.
  If swallowed: Rinse mouth. Do NOT induce vomiting.
  If on skin: Wash with plenty of soap and 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.
  Store in accordance with local/regional/national/international regulations.
  Store in a closed container.
  Protect from sunlight.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
  · NFPA ratings (scale 0 - 4)

    Health = 0
    Fire = 0
    Reactivity = 0

(Contd. on page 2)
Product name: Streptavidin-R-Phycoerythrin (ver 6), 0.25 mg; Streptavidin-R-Phycoerythrin (ver 6), 1 mg; Streptavidin-R-Phycoerythrin (ver 6), 10 mg; Streptavidin-R-Phycoerythrin (ver 6), 50 mg

HMIS-ratings (scale 0 - 4)

- Health = 0
- 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: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.
- Dangerous components: Void

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: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- 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: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Wear protective gloves / eye protection / face protection.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Product name: Streptavidin-R-Phycoerythrin (ver 6), 0.25 mg; Streptavidin-R-Phycoerythrin (ver 6), 1 mg; Streptavidin-R-Phycoerythrin (ver 6), 10 mg; Streptavidin-R-Phycoerythrin (ver 6), 50 mg

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.

Protective Action Criteria for Chemicals

PAC-1:
- 1185-53-1 2-amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride 12 mg/m³
- 87-86-5 pentachlorophenol 1 mg/m³

PAC-2:
- 1185-53-1 2-amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride 130 mg/m³
- 87-86-5 pentachlorophenol 15 mg/m³

PAC-3:
- 1185-53-1 2-amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride 790 mg/m³
- 87-86-5 pentachlorophenol 150 mg/m³

7 Handling and storage

Handling:
- Precautions for safe handling: Wear protective gloves / eye protection / face protection.
- Information about protection against explosions and fires: No special measures required.

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: None.
- 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.

Control parameters
- Components with limit values that require monitoring at the workplace:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.

Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
  - Breathing equipment: Not required.
- Protection of hands:
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Material of gloves: Wear suitable gloves.
9 Physical and chemical properties

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
      - Form: Liquid
      - Color: Red
    - Odor:
      - Odor: Characteristic
    - Odor threshold:
      - Odor threshold: Not determined.
  - pH-value at 20 °C (68 °F):
    - pH-value at 20 °C (68 °F): 8.2
  - Change in condition
    - Melting point/Melting range:
      - Melting point/Melting range: 0 °C (32 °F)
    - Boiling point/Boiling range:
      - Boiling point/Boiling range: 100 °C (212 °F)
  - Flash point:
    - Flash point: Not applicable.
  - Flammability (solid, gaseous):
    - Flammability (solid, gaseous): Not applicable.
  - Decomposition temperature:
    - Decomposition temperature: Not determined.
  - Auto igniting:
    - Auto igniting: Product is not selfigniting.
  - Danger of explosion:
    - Danger of explosion: Product does not present an explosion hazard.
  - Explosion limits:
    - Lower:
      - Lower: Not determined.
    - Upper:
      - Upper: Not determined.
  - Vapor pressure at 20 °C (68 °F):
    - Vapor pressure at 20 °C (68 °F): 23 hPa (17.3 mm Hg)
  - Density:
    - Density: Not determined.
  - Relative density:
    - Relative density: Not determined.
  - Vapor density:
    - Vapor density: Not determined.
  - Evaporation rate:
    - Evaporation rate: Not determined.
  - Solubility in / Miscibility with
    - Water:
      - Water: Not miscible or difficult to mix.
  - Partition coefficient (n-octanol/water):
    - Partition coefficient (n-octanol/water): Not determined.
  - Viscosity:
    - Dynamic at 20 °C (68 °F):
      - Dynamic at 20 °C (68 °F): 0.952 mPas
    - Kinematic:
      - Kinematic: Not determined.
  - Solvent content:
    - Water:
      - Water: 98.8 %
    - VOC content:
      - VOC content: 0.00 %
  - Solids content:
    - Solids content: 1.0 %
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 dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
  - Primary irritant effect:
    - on the skin: May be harmful in contact with skin.
    - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  - The product is not subject to classification according to internally approved calculation methods for preparations: 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.
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    - 87-86-5 pentachlorophenol: 2B
  - NTP (National Toxicology Program)
    - 87-86-5 pentachlorophenol: R
  - 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.
- Behavior in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes: Not hazardous for water.
### Product name

Streptavidin-R-Phycoerythrin (ver 6), 0.25 mg; Streptavidin-R-Phycoerythrin (ver 6), 1 mg; Streptavidin-R-Phycoerythrin (ver 6), 10 mg; Streptavidin-R-Phycoerythrin (ver 6), 50 mg

### Results of PBT and vPvB assessment

- **PBT**: Not applicable.
- **vPvB**: Not applicable.
- **Other adverse effects** No further relevant information available.

### Disposal considerations

- **Waste treatment methods**
  - **Recommendation**: Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Uncleaned packagings**
  - **Recommendation**: Disposal must be made according to official regulations.

### Transport information

- **UN-Number**
  - DOT, ADN, IMDG, IATA: not regulated

- **UN proper shipping name**
  - DOT, ADN, IMDG, IATA: not regulated

- **Transport hazard class(es)**
  - DOT, ADN, IMDG, IATA: Class not regulated

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances)**: None of the ingredients is listed.
    - **Section 313 (Specific toxic chemical listings)**:
      - 87-86-5 pentachlorophenol
    - **TSCA (Toxic Substances Control Act)**:
      - 7647-14-5 sodium chloride [ACTIVE]
### Product name:
Streptavidin-R-Phycoerythrin (ver 6), 0.25 mg; Streptavidin-R-Phycoerythrin (ver 6), 1 mg; Streptavidin-R-Phycoerythrin (ver 6), 10 mg; Streptavidin-R-Phycoerythrin (ver 6), 50 mg

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1185-53-1</td>
<td>2-amino-2-(hydroxymethyl)propane-1,3-diolhydrochloride</td>
<td>ACTIVE</td>
</tr>
<tr>
<td>87-86-5</td>
<td>pentachlorophenol</td>
<td>ACTIVE</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>water, distilled, conductivity or of similar purity</td>
<td>ACTIVE</td>
</tr>
</tbody>
</table>

**Hazardous Air Pollutants**

- 87-86-5 pentachlorophenol

**Proposition 65**

- Chemicals known to cause cancer:
  - 87-86-5 pentachlorophenol

**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.

**Carcinogenic categories**

- **EPA (Environmental Protection Agency)**
  - 87-86-5 pentachlorophenol | L |
- **TLV (Threshold Limit Value established by ACGIH)**
  - 87-86-5 pentachlorophenol | A3 |
- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  - None of the ingredients is listed.

**GHS label elements**

- Void

**Signal word**

- Void

**Hazard statements**

- Void

**Precautionary statements**

- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Wash thoroughly after handling.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If swallowed: Call a doctor if you feel unwell.
- If swallowed: Rinse mouth. Do NOT induce vomiting.
- If on skin: Wash with plenty of soap and water.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF INEYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Store in accordance with local/regional/national/international regulations.
- Store in a closed container.
- Protect from sunlight.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

**Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

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**16 Other information**

The information contained in this document is based on Agilent’s state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.