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

- **Product identifier**
- **Trade name:** Vial H4 (Desalting Resin)
- **Article number:** WS0158
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Research and Development
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** ProZyme, Inc
  3832 Bay Center Place
  HAYWARD, CA 94545
  USA
- **Further information obtainable from:** ProZyme Quality Assurance Department
- **Emergency telephone number:** +1 760 476 3961

2 Hazards identification

- **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 is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**
- **Labelling according to EU guidelines:**
  Observe the general safety regulations when handling chemicals.
  The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- **Other hazards**
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterisation:** Mixtures
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

(Contd. on page 2)
## 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 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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**: Pick up mechanically.
  - **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**: Wear protective gloves / eye protection / face protection.
  - **Information about fire - and explosion protection**: 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 facilities**: No further data; see item 7.
Control parameters
Ingredients 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 valid during the making were used as basis.

Exposure controls
Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Respiratory protection: 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.
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.
Eye protection: Wear eye protection / face protection.

9 Physical and chemical properties

Information on basic physical and chemical properties
General Information
Appearance:
Form: Solid
Colour: Pale
Odour: Characteristic
Odour threshold: Not determined.
PH-value: Not applicable.

Change in condition
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

Flash point: Not applicable.
Flammability (solid, gaseous): Not determined.
Ignition temperature: 427 °C
Decomposition temperature: Not determined.
Self-igniting: Product is not selfigniting.
Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
Lower: Not determined.
Upper: Not determined.

Vapour pressure at 20 °C: 23 hPa

Density:
Relative density Not determined.
Vapour density Not applicable.
Evaporation rate Not applicable.
### Safety data sheet

**according to 1907/2006/EC, Article 31**

**Trade name:** Vial H4 (Desalting Resin)

(Contd. of page 3)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility in / Miscibility with water:</td>
<td>Insoluble.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solvent content:</td>
<td></td>
</tr>
<tr>
<td>Organic solvents:</td>
<td>0.0 %</td>
</tr>
<tr>
<td>Water:</td>
<td>50.0 %</td>
</tr>
<tr>
<td>Solids content:</td>
<td>50.0 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

### 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 Based on available data, the classification criteria are not met.
  - Primary irritant effect:
  - Skin corrosion/irritation May be harmful in contact with skin.
  - Serious eye damage/irritation Based on available data, the classification criteria are not met.
  - Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
  - CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity Based on available data, the classification criteria are not met.
  - Carcinogenicity Based on available data, the classification criteria are not met.
  - Reproductive toxicity Based on available data, the classification criteria are not met.
  - STOT-single exposure Based on available data, the classification criteria are not met.
  - STOT-repeated exposure Based on available data, the classification criteria are not met.
  - Aspiration hazard Based on available data, the classification criteria are not met.

### 12 Ecological information

- **Toxicity**
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.

(Contd. on page 5)
Trade name: Vial H4 (Desalting Resin)

- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes: Generally not hazardous for water
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

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

14 Transport information

- UN-Number
  - ADR, ADN, IMDG, IATA: not regulated
- UN proper shipping name
  - ADR, ADN, IMDG, IATA: not regulated
- Transport hazard class(es)
  - ADR, ADN, IMDG, IATA
    - Class: not regulated
- Packing group
  - ADR, IMDG, IATA: not regulated
- Environmental hazards:
  - Not applicable.
- Special precautions for user
  - Not applicable.
- Transport in bulk according to Annex II of Marpol and the IBC Code
  - Not applicable.
- UN "Model Regulation": not regulated

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I: None of the ingredients is listed.
  - 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.

· Trademark ProZyme is a trademark or a registered trademark of ProZyme, Inc., in the United States and other countries.

· Department issuing SDS: ProZyme Quality Assurance Department

· Supersedes Date: 06-March-2015

· Current Version: AD