# Safety Data Sheet

## 1. Product Identifier

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Glyko® β(1-4)-Galactosidase (Streptococcus pneumoniae)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code</td>
<td>GXX-5014, WS0044</td>
</tr>
<tr>
<td>CAS Number</td>
<td>NA</td>
</tr>
<tr>
<td>Other Names</td>
<td>NA</td>
</tr>
<tr>
<td>IUPAC</td>
<td>NA</td>
</tr>
<tr>
<td>MFCD Number</td>
<td>NA</td>
</tr>
<tr>
<td>EC/EINECS</td>
<td>NA</td>
</tr>
<tr>
<td>REACH Number</td>
<td>NA</td>
</tr>
</tbody>
</table>

## 2. Relevant identified uses of the substance or mixture and uses advised against

- Research and Development

## 3. Details of the supplier of the safety data sheet

**ProZyme, Inc**

3832 Bay Center Place, Hayward, CA 94545-3619, USA

- Telephone: +1 (760) 476-3961
- Fax number: +1 (510) 638-6919
- Email: info@prozyme.com

## 4. Emergency telephone number

+1 (760) 476 3961

## 2. Hazards Identification

### 1. Classification of the substance or mixture

<table>
<thead>
<tr>
<th>Risk Code</th>
<th>Hazard Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>Skin Sens. 1 May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H334</td>
<td>Resp. Sens. 1 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
</tbody>
</table>

* The risk codes have been generated using Annex VII of directive 67/548/EEC. Risk code combinations are not included.

### 2. Label elements

Signal Word: **Danger**

---

**Hazard Statements**

- H317: May cause an allergic skin reaction.
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Precautionary Phrases**

None Hazardous

---

### 3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

---

### 3. Composition / Information on Ingredients

#### 1. Substances

Not Relevant

#### 2. Mixtures

---

**Issue Date:** 25 Oct 2012  
**Revision Date:** 08-July-2015
4. First Aid Measures

1. Description of first aid measures

**Skin Contact**
- P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
- Wash immediately with plenty of soap and water.

**Eye Contact**
- Rinse with plenty of water. If symptoms arise, call a physician.

**Ingestion**
- Never give anything by mouth to an unconscious person. If symptoms arise, consult a physician. Do not induce vomiting without medical advice.

**Inhalation**
- P304 + P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

2. Most important symptoms and effects

No data available.

3. Indication of any immediate medical attention

Obtain medical attention in the event of any acute or delayed symptoms.

5. Firefighting measures

1. Extinguishing Media

**Suitable**
- Suitable extinguishing media for surrounding fire should be used.

**Unsuitable**
- NA

2. Special Hazards arising from the substance or mixture

In combustion emits fumes of carbon oxides.

3. Advice for Fire Fighters

- Wear self-contained breathing apparatus and protective clothing if needed.

6. Accidental Release Measures

1. Personal Precautions

- Refer to section 8 of SDS for personal protection details.

2. Environmental Precautions

- Do not discharge into drains or rivers.

3. Methods & Materials

- Absorb small spills with appropriate absorbant material. Wash the spillage site with large amounts of water. Place in suitable container for proper disposal.
7. Handling and Storage

1. Personal Precautions

| Safe Handling | Wear appropriate protective clothing (safety glasses, gloves, laboratory coat). Handle in accordance with all current regulations and standards. |
| Protection against explosions and fires | NA |

2. Conditions for safe storage, including any incompatibilities

| Managing Storage Risks | Store cold at +2-8°C. |
| Storage Controls | Store according to product labeling. Handle and store in accordance with all current regulations and standards. |
| Maintaining Integrity | Keep container tightly closed. Store cold at +2-8°C. |
| Other advice | NA |

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

Not Applicable

2. Exposure Controls

| General protective and hygiene measures | P280: Wear protective gloves/protective clothing/eye protection/face protection. Handle in accordance with good laboratory hygiene practices. |
| Engineering measures | NA |
| Eye / Face Protection | Safety Glasses with side-shields. |
| Hand protection | Protective gloves. |
| Skin protection | Wear appropriate protective clothing (safety glasses, gloves, laboratory coat). |
| Other personal protection advice | NA |

9. Physical and Chemical Properties

| 1. Physical and Chemical Properties | |
| Appearance | Clear liquid |
| Odour | Not Available |
| Odour threshold | Not Available |
| PH | 7.5 |
| Melting point / Freezing point | Not Available |
| Initial boiling point and boiling range | Not Available |
| Flash point | Not Available |
| Evaporation rate | Not Available |
| Flammability(solid,gas) | Not Available |
| Upper/lower flammability or explosive limits | Not Available |
| Vapour pressure | Not Available |
Vapour density | Not Available
Relative density | Not Available
Solubility(ies): | Not Available
Partition coefficient: n-octanol/water | Not Available
Auto-ignition temperature | Not Available
Decomposition temperature | Not Available
Viscosity | Not Available
Explosive properties | Not Available
Oxidising properties | Not Available

2. Other Information
Not available

10. Stability and Reactivity

1. Reactivity
Not Combustable.

2. Stability
Stable under recommended storage conditions.

3. Possibility of Hazardous Reactions
No hazardous reactions known.

4. Conditions to Avoid
No data available.

5. Incompatible Materials
No data available.

6. Hazardous Decomposition Products
In combustion emits fumes of carbon oxides.

11. Toxicology Information

1. Information

   - Acute Toxicity: No data available.
   - Skin corrosion/irritation: Non-hazardous but possibility of allergic response arising from prolonged/repeated exposure in sensitive individuals.
   - Serious eye damage/irritation: May cause eye irritation with susceptible person.
   - Respiratory or skin sensitisation: Non-hazardous but possibility of allergic response arising from prolonged/repeated exposure in sensitive individuals.
   - Germ Cell mutagenicity: No data available.
   - Carcinogenicity: No data available.
   - Reproductive toxicity: No data available.
   - STOT-single exposure: No data available.
   - STOT-repeated exposure: No data available.
   - Aspiration hazard: Non-hazardous but possibility of allergic response arising from prolonged/repeated exposure in sensitive individuals.

2. Additional
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
12. Ecological Information

1. Toxicity
   No data available

2. Persistence and degradability
   No data available

3. Bio-Accumulative Potential
   No data available

4. Mobility and Soil
   No data available.

5. Results of PBT & vPvB assessment
   No data available.

6. Other adverse effects
   No data available.

13. Disposal Considerations

1. Waste Treatment Methods
   - **Disposal Operations**: Dilute with excess water, mop up with absorptive material and dispose of according to local regulations.
   - **Disposal of Packaging**: Dispose of as unused product.

14. Transport Information

   **Air (ICAO)**
   Not classified as hazardous for transport

   **Road (ADR)**
   Not classified as hazardous for transport

   **Sea (IMDG)**
   Not classified as hazardous for transport

15. Safety, health and environmental regulations

1. Safety, health and environmental regulations:
   No data available.

2. Safety Assessment
16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by road)
RID: Reglement 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
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service

2. Associated risk phrases according to European directive 67/548/EEC

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R42</td>
<td>May cause sensitization by inhalation.</td>
</tr>
<tr>
<td>R42/43</td>
<td>May cause sensitization by inhalation and skin contact.</td>
</tr>
<tr>
<td>R43</td>
<td>May cause sensitization by skin contact.</td>
</tr>
</tbody>
</table>

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.

The above information is supplied in good faith and is believed to be correct. It does not claim to be all-inclusive and is intended to be used only as a guide. Final determination of the suitability of any material is the sole responsibility of the user. ProZyme shall not be held responsible for any damage resulting from handling or contact with the above product. This product is intended for in vitro research only.

4. Trademarks

ProZyme and Glyko are trademarks or registered trademarks of ProZyme Inc., in the United States and other countries.