# Safety Data Sheet

According to Regulation (EC) No. 1272/2008
Language: English

## 1. Identification of substance / mixture

### Mixture

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Denaturation Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code</td>
<td>WS0056</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 (510) 638-6900
  - Fax: +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>Hazard Statement</th>
<th>Signal Word</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>Skin Sens. 1</td>
<td>R43, R42/43</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H320</td>
<td>Eye Irrit. 2B</td>
<td>R37, R36/37, R36/37/38, R37/38</td>
<td>Causes eye irritation</td>
</tr>
<tr>
<td>H335</td>
<td>STOT SE 3a</td>
<td>R53</td>
<td>May cause respiratory irritation.</td>
</tr>
<tr>
<td>H413</td>
<td>Aquatic Chronic 4</td>
<td>R53</td>
<td>May cause long lasting harmful effects to aquatic life.</td>
</tr>
</tbody>
</table>

### 2. Label elements

- **Warning**

### Hazard Statements

- H317: May cause an allergic skin reaction.
- H320: Causes eye irritation
- H335: May cause respiratory irritation.
- H413: May cause long lasting harmful effects to aquatic life.

### Precautionary Phrases

- Non Hazardous

## 3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

## 3. Composition / Information on Ingredients

### 1. Substances

No Resource File

### 2. Mixtures

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Product Name</th>
<th>CAS Number</th>
<th>EC/EINECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-8%</td>
<td>β-mercaptoethanol</td>
<td>60-24-2</td>
<td>200-464-6</td>
</tr>
</tbody>
</table>
4. First Aid Measures

1. Description of first aid measures

Skin Contact: Wash immediately with plenty of soap and water. If symptoms arise, call a physician.

Eye Contact: Bathe the eye with running water for 15 minutes. Consult a physician.

Ingestion: Wash out mouth with water. Never give anything by mouth to an unconscious person. Call a physician. Do not induce vomiting without medical advice.

Inhalation: Move to fresh air. If symptoms arise, call a physician. If not breathing, give artificial respiration.

2. Most important symptoms and effects

Material may cause irritation at the point of contact. Prolonged and/or repeat contact may cause skin sensitization or an allergic reaction.

3. Indication of any immediate medical attention

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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 toxic fumes of carbon oxides, sodium oxides and sulphur oxides.

3. Advice for Fire Fighters

   Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

1. Personal Precautions

   Refer to section 8 of SDS for personal protection details. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

2. Environmental Precautions

   Do not discharge into drains or rivers.

3. Methods & Materials

   Absorb small spills with inert absorbant material. Place in suitable closed container for proper disposal according to local regulations.

4. Preventing the occurrence of secondary hazards

   No data available.

7. Handling and Storage

1. Personal Precautions

   Safe Handling: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. 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 at -20°C according to product labeling.

   Storage Controls: Store according to product labeling. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

   Maintaining Integrity: Store at -20°C according to product labeling. Keep container tightly closed.

   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.
2. Exposure Controls

General protective and hygiene measures
Wear appropriate protective clothing (safety glasses, gloves, laboratory coat). Avoid contact with skin, eyes and clothing. Follow good industrial hygiene and safety procedures.

Engineering measures
Ensure there is sufficient ventilation of the area.

Eye / Face Protection
Safety Glasses with side-shields or a face-shield. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU).

Hand protection
Protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.

Respiratory protection
Respiratory protection not generally required when under conditions of normal use.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Stench</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No Data Available</td>
</tr>
<tr>
<td>PH</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Melting point / Freezing point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flammability(solid, gas)</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Solubility(ies):</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No Data Available</td>
</tr>
</tbody>
</table>

2. Other Information

NA

10. Stability and Reactivity

1. Reactivity
No dangerous reaction known under conditions of normal use.

2. Stability
Stable under recommended storage conditions.

3. Possibility of Hazardous Reactions
No data available.

4. Conditions to Avoid
Strong oxidizing agents.

5. Incompatible Materials
Oxidising agents.

6. Hazardous Decomposition Products
In combustion emits toxic fumes of carbon oxides, nitrogen oxides, sodium oxides or sulphur oxides.

11. Toxicology information

<table>
<thead>
<tr>
<th>Acute Toxicity</th>
<th>No data available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>May be harmful if absorbed through the skin. May cause skin irritation.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>May cause eye irritation.</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>May be harmful if inhaled. May cause skin sensitization with prolonged and/or repeat exposure.</td>
</tr>
<tr>
<td>Germ Cell mutagenicity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>No data available.</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>No data available.</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>May be harmful if inhaled. Possibility of allergic response arising from prolonged/repeated exposure in sensitive individuals.</td>
</tr>
</tbody>
</table>

2. Additional

To the best of our knowledge, the toxicological, carcinogenic and mutagenic properties have not been thoroughly investigated.

12. Ecological Information

1. Toxicity
   May cause long-term adverse effects in the aquatic environment.

2. Persistance 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: Do not allow product to reach sewage system. Use a licensed disposal company. Dispose of according to current regulations and standards.
   Disposal of Packaging: Dispose of as unused product.

14. Transport Information

Air (ICAO)

1. UN Number:
2. Shipping Name: None Hazardous
3. Transport hazard class(es): Sub Class:

4. Packing group:
5. Environmental hazards:
6. Special Precautions for user:
7. Transport in bulk:

Road (ADR)
1. **UN Number:**

2. **Shipping Name:** None Hazardous

3. **Transport hazard class(es):** Sub Class:

4. **Packing group:**

5. **Environmental hazards:**

6. **Special Precautions for user:**

7. **Transport in bulk:**

### Sea (IMDG)

1. **UN Number:**

2. **Shipping Name:** None Hazardous

3. **Transport hazard class(es):** Sub Class:

4. **Packing group:**

5. **Environmental hazards:**

6. **Special Precautions for user:**

7. **Transport in bulk:**

#### 15. Safety, health, environmental and national regulations

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

2. **Safety Assessment**
   
   No Chemical Safety Assessment

#### 16. Other Information

1. **Other Information:**
   
   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; 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>Risk Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R36/37</td>
<td>Irritating to eyes and respiratory system.</td>
</tr>
<tr>
<td>R36/37/38</td>
<td>Irritating to eyes, respiratory system and skin.</td>
</tr>
<tr>
<td>R37</td>
<td>Irritating to respiratory system.</td>
</tr>
<tr>
<td>R37/38</td>
<td>Irritating to respiratory system and skin.</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 sensitisation by skin contact.</td>
</tr>
<tr>
<td>R53</td>
<td>May cause long-term adverse effects in the aquatic environment.</td>
</tr>
</tbody>
</table>

3. **Disclaimer**

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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.

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