Safety Data Sheet (SDS)

Revision Number: 1.1

1. Product and Company Identification

Product Name: SensoLyte® Rh110 Enterokinase Activity Assay Kit * Fluorimetric*

Manufacturer/Supplier: AnaSpec, Inc.
www.anaspec.com
34801 Campus Drive
Fremont, CA 94555
Tel: 510-791-9560
Fax: 510-791-9572
Email: service@anaspec.com

Catalog Number: AS-72210

Unit Size: 1 kit

2. Hazards Identification

Emergency Overview:

GHS Hazard Classification:

GHS Physical Hazards

Component A: Flammable liquid (Category 4)
Component B: Flammable liquid (Category 4)
Component C: Not Applicable
Component D: Not Applicable
Component E: Flammable liquid (Category 4)

GHS Health and Environmental Hazards

Component A: Irritant to eyes and skin
Component B: Irritant to eyes and skin
Component C: Irritant to eyes and skin
Component D: Irritants to eyes and skin
Component E: Irritants to eyes and skin

GHS Signal Words:

Component A: Warning
Component B: Warning
Component C: Danger
Component D: Danger
Component E: Warning

GHS Hazard Statements:

Component A: H227 Combustible liquid
Component B: H227 Combustible liquid
Component C: H302 Harmful if swallowed.
Component D: H302 Harmful if swallowed.
    H314 Causes severe skin burns and eye damage.
    H335 May cause respiratory irritation.

Component E: H227 Combustible liquid

GHS Precautionary Statements:
Component A: - None
Component B: - None
Component C: - None
Component D: - None
Component E: - None

HMIS Classification:

<table>
<thead>
<tr>
<th>Component A:</th>
<th>Component B:</th>
<th>Component C:</th>
<th>Component D:</th>
<th>Component E:</th>
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NFPA Rating:

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3. Composition / Information on Ingredients

<table>
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<tr>
<th>Ingredients/Components</th>
<th>Description</th>
<th>CAS Number</th>
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<tbody>
<tr>
<td>Component A</td>
<td>Contains DMSO</td>
<td>67-68-5</td>
</tr>
<tr>
<td>Component B</td>
<td>Contains DMSO</td>
<td>67-68-5</td>
</tr>
<tr>
<td>Component C</td>
<td>Solution</td>
<td>N/A</td>
</tr>
<tr>
<td>Component D</td>
<td>Solution</td>
<td>N/A</td>
</tr>
<tr>
<td>Component E</td>
<td>Contains DMSO</td>
<td>67-68-5</td>
</tr>
</tbody>
</table>
### 4. First Aid Measures

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### Component A

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Skin:** Wash off with soap and plenty of water. Consult a physician.

**Eyes:** Flush eyes with water as a precaution.

#### Component B

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Skin:** Wash off with soap and plenty of water. Consult a physician.

**Eyes:** Flush eyes with water as a precaution.

#### Component C

**Inhalation:** If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Skin:** Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

**Eyes:** Flush eyes with water as a precaution.

#### Component D

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Skin:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

**Eyes:** Flush eyes with water as a precaution.

#### Component E

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Skin:** Wash off with soap and plenty of water. Consult a physician.

**Eyes:** Flush eyes with water as a precaution.

### 5. Fire Fighting Measures
### Extinguishing media:

<table>
<thead>
<tr>
<th>Component A, B, and E:</th>
<th>For small fires, use alcohol resistant foam, dry chemical, or carbon dioxide. For large fires, use water spray from a safe distance. <strong>Component C, D:</strong> Not applicable.</th>
</tr>
</thead>
</table>

### Special firefighting procedures:

<table>
<thead>
<tr>
<th>Component A, B, and E:</th>
<th>Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. <strong>Component C, D:</strong> Not applicable.</th>
</tr>
</thead>
</table>

### Unusual fire and explosions hazards:

<table>
<thead>
<tr>
<th>Component A, B, E:</th>
<th>Combustible liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. Hazardous carbon oxides and sulphur oxides formed under fire conditions. <strong>Component C, and D:</strong> Not applicable.</th>
</tr>
</thead>
</table>

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### 6. Accidental Release Measures

#### Containment and spill response

<table>
<thead>
<tr>
<th>Component A, B, and E:</th>
<th>Immediately contact emergency personnel. Prevent further leakage or spillage if safe to do so. Avoid breathing vapors or mist. Remove all sources of ignition and provide ventilation. Collect with an electrically protected vacuum cleaner, by wet-brushing, or by absorbing with vermiculite, sand or earth, and place in appropriate container for disposal. Do not let material enter drains. <strong>Component C, and D:</strong> Not applicable.</th>
</tr>
</thead>
</table>

#### PPE

<table>
<thead>
<tr>
<th>Use personal protective equipment</th>
</tr>
</thead>
</table>

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### 7. Handling and Storage

#### Component A, B, and E

*Handling:* Wash thoroughly after handling. Remove and wash any contaminated clothing. Keep container tightly closed and avoid contact with eyes, skin, and clothing. Use with adequate ventilation and avoid ingestion and inhalation. Keep away from heat and flame.

*Storage:* Store in a tightly closed container away from moisture, heat, and flame. Store away from incompatible substances. Storage under a nitrogen blanket has been recommended. **Component C, and D:** Not applicable.
### 8. Exposure Controls /Personal Protection

**Engineering controls**

Component A, B and E: Facilities storing and using this material should be equipped with a safety shower and eyewash station. Adequate ventilation should also be present. **Component C, and D: Not applicable.**

**PPE**

Component A, B, and E

Respiratory System: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. 

Skin and Body: Wear appropriate work uniform or laboratory coat to prevent skin exposure.

Hands: Use chemical resistant, impervious gloves. Appropriate techniques should be used to remove potentially contaminated gloves.

Eyes: Wear chemical splash goggles.

Component C, and D: Not applicable.

### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Components are liquids.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>Not determined</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
| pH            | Component A, Not applicable  
                Component B, no data available  
                Component C -7.4  
                Component D -7.4  
                Component E no data available |
| Boiling Point | Not determined          |
| Melting Point | Not determined          |
| Flash Point   | Not determined          |
| Vapor Pressure: | Not determined        |
| Vapor Density: | Not determined         |

### 10. Stability and Reactivity

Thermal Decomposition: Not applicable

Dangerous Products of Decomposition: Not Applicable

Dangerous Reactions: Not Applicable

### 11. Toxicological Information

RTECS Number: Component A: PV6210000
### Component List

<table>
<thead>
<tr>
<th>Component</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
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<tr>
<td>B</td>
<td>PV6210000</td>
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<tr>
<td>C</td>
<td>N/A</td>
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<tr>
<td>D</td>
<td>N/A</td>
</tr>
<tr>
<td>E</td>
<td>PV6210000</td>
</tr>
</tbody>
</table>

### Toxicity

For Component A, B, and F contain DMSO.
- **Oral LD50**
  - LD50 Oral - rat - 14,500 mg/kg
- **Inhalation LC50**
  - LC50 Inhalation - rat - 4 h - 40250 ppm
- **Dermal LD50**
  - LD50 Dermal - rabbit - > 5,000 mg/kg

### Health Hazards

No data available

### Potential Hazards

**Potential Health Effects**
- **Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.
- **Ingestion** Harmful if swallowed. Causes skin irritation.
- **Skin** Harmful if absorbed through skin. Causes skin irritation.
- **Eyes** Causes eye irritation.

**Aggravated Medical Condition:** Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide (DMSO) is readily absorbed through skin and may carry such materials into the body.

**Carcinogenicity:**
No data available

**OSHA Permissible Exposure Limit (PEL) Data**
No data available

**ACGIH Threshold Limit Values (TLV)**
No data available

### 12. Ecological Information
For Dimethyl sulfoxide (DMSO) CAS-No. 67-68-5 (Component A, B, and E contain DMSO)

**Toxicity**
Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 34,000 mg/l - 96 h
LC50 - Oncorhynchus mykiss (rainbow trout) - 35,000 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia pulex (Water flea) - 27,500 mg/l
Toxicity to algae EC50 - Lepomis macrochirus (Bluegill) - > 400,000 mg/l - 96 h

**Persistence and degradability**
No data available

**Bioaccumulative potential**
No data available

**Mobility in soil**
No data available

**PBT and vPvB assessment**
No data available

**Other adverse effects**
No data available

13. Disposal Considerations

For Dimethyl sulfoxide (DMSO) CAS-No. 67-68-5 (Components A, B, and E)

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**
Dispose of as unused product.

14. Transport Information:

<table>
<thead>
<tr>
<th>UN Number</th>
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<tbody>
<tr>
<td>Hazard Class</td>
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<td>Identification Number</td>
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<td>Packing Group</td>
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<tr>
<td>Proper Shipping Name (DOT)</td>
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### Regulatory Information

<table>
<thead>
<tr>
<th>California Proposition 65:</th>
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</table>
| US TSCA (Toxic Substance Control Act): | Component A: Listed  
Component B: Listed  
Component C: Not Listed  
Component D: Not listed  
Component E: listed |
| US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act): | Component A: Not listed  
Component B: Not listed  
Component C: Not listed  
Component D: Not listed  
Component E: Not listed |
| US SARA Title III | Component A  
SARA 302 components: N/A  
SARA 313 components: N/A  
SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard  
Component B  
SARA 302 components: N/A  
SARA 313 components: N/A  
SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard  
Component C  
SARA 302 components: N/A  
SARA 313 components: N/A  
SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard  
Component D  
SARA 302 components: N/A  
SARA 313 components: N/A  
SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard  
Component E  
SARA 302 components: N/A  
SARA 313 components: N/A, Chronic Health Hazard  
SARA 311/312 Hazards: Acute Health Hazard |
| US Clean Air Act: | Component A, B, C, D, E,  
Listed under Hazardous Air Pollutants: Not listed  
Listed under Class 1 Ozone Depletors: Not listed  
Listed under Class 2 Ozone Depletors: Not listed |
| US Clean Water Act: | Components A, B, C, D, E,  
Listed under “Hazardous Substances”: Not listed  
Listed under “Priority Pollutants”: Not listed  
Listed under “Toxic Pollutants”: Not listed |
### US States: Right-to-Know: Listed in the following States:

<table>
<thead>
<tr>
<th>Component A:</th>
<th>Component B:</th>
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### European/International Regulations:

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### 16. Other Information

It is not intended for food, drug, and household, agricultural or cosmetic use. A technically qualified individual experienced in handling potentially hazardous chemicals must supervise its use. The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Users should make independent decisions regarding completeness of the information based on all sources available. AnaSpec shall not be held liable for any damage resulting from handling or from contact with the above product.