SECTION 1: IDENTIFICATION

1.1. Product Identifier
Product Form: Mixture
Product Name: AR100075

1.2. Intended Use of the Product
Use of the substance/mixture: Research Use Only.

1.3. Name, Address, and Telephone of the Responsible Party
OriGene Technologies, Inc.
9620 Medical Center Drive, Suite 200
Rockville, MD 20850
301.340.3188

1.4. Emergency Telephone Number
OriGene Technologies 1-301-340-3188

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture
GHS-US classification
Not classified

2.2. Label Elements
GHS-US Labeling
No labeling applicable

2.3. Other Hazards
Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)
No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance
Not applicable

3.2. Mixture
Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures
First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.
First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.
First-aid Measures After Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/Injuries: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.
Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.
Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media
Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.
Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.
5.2. Special Hazards Arising From the Substance or Mixture
Fire Hazard: Not considered flammable but may burn at high temperatures.
Explosion Hazard: Product is not explosive.
Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters
Precautionary Measures Fire: Exercise caution when fighting any chemical fire.
Firefighting Instructions: Use water spray or fog for cooling exposed containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

6.1.1. For Non-emergency Personnel
Protective Equipment: Use appropriate personal protection equipment (PPE).

6.1.2. For Emergency Responders
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions
Prevent entry to sewers and public waters.

6.3. Methods and Material for Containment and Cleaning Up
For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections
See Section 8 for exposure controls and personal protection. See Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling
Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities
Technical Measures: Comply with applicable regulations.
Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.
Incompatible Products: Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)
Research Use Only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters
For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

8.2. Exposure Controls
Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Materials for Protective Clothing: Chemically resistant materials and fabrics.
Hand Protection: Wear protective gloves.
Eye Protection: Chemical safety goggles.
Skin and Body Protection: Wear suitable protective clothing.
Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties
Physical State: Liquid
pH: 7.3
All other properties: No data available

9.2. Other Information
No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:
Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability:
Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of Hazardous Reactions:
Hazardous polymerization will not occur.

10.4. Conditions to Avoid:
Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. Incompatible Materials:
Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products:
Thermal decomposition generates: carbon oxides (CO, CO₂) and nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects
Acute Toxicity: Not classified

<table>
<thead>
<tr>
<th>Substance</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride (7647-14-5)</td>
<td>LD50 Oral Rat</td>
<td>3 g/kg</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Rat</td>
<td>&gt; 42 g/m³ (Exposure time: 1 h)</td>
</tr>
<tr>
<td>Sodium phosphate dibasic (7558-79-4)</td>
<td>LD50 Oral Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation: Not classified
Serious Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Specific Target Organ Toxicity (Repeatec Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.
Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecology - General: Not classified.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Toxicity Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride (7647-14-5)</td>
<td>5560 (5560 - 6080) mg/l [Exposure time: 96 h - Species: Lepomis macrochirus [flow-through]]</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
</tr>
<tr>
<td>LC 50 Fish 2</td>
<td>12946 mg/l [Exposure time: 96 h - Species: Lepomis macrochirus [static]]</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
<td>340.7 (340.7 - 469.2) mg/l [Exposure time: 48 h - Species: Daphnia magna [Static]]</td>
</tr>
</tbody>
</table>

12.2. Persistence and Degradability
Activated Proteins HRP, PE, AP
Persistence and Degradability: Not established.
12.3. Bioaccumulative Potential

<table>
<thead>
<tr>
<th>Activated Proteins HRP, PE, AP</th>
<th>Bioaccumulative Potential</th>
<th>Not established.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride (7647-14-5)</td>
<td></td>
<td>(no bioaccumulation)</td>
</tr>
<tr>
<td>BCF fish 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.4. Mobility in Soil  No additional information available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.


SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT  Not regulated for transport
14.2. In Accordance with IMDG  Not regulated for transport
14.3. In Accordance with IATA  Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

<table>
<thead>
<tr>
<th>Sodium chloride (7647-14-5)</th>
<th>Listed on the United States TSCA (Toxic Substances Control Act) inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albumins, blood serum (9048-46-8)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Sodium phosphate dibasic (7558-79-4)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

15.2 US State Regulations

<table>
<thead>
<tr>
<th>Sodium phosphate dibasic (7558-79-4)</th>
<th>U.S. - Massachusetts - Right To Know List</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List</td>
</tr>
<tr>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Further information

Copyright 2018 OriGene Technologies, Inc. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. OriGene Technologies and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.origene.com for additional terms and conditions of sale.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006