Section 1: Chemical Product and Company Identification

Cat#: 25094J
Part Name: NUCLEAR FAST RED SOLUTION 1%
Supplier: Polysciences, Inc.
400 Valley Road
Warrington, PA 18976 USA
MSDS Telephone #215-343-6484 Emergency only #215-378-4526

Section 2: Hazards Identification

Hazard Overview
Low hazard for usual industrial or commercial handling.
GHS Classification
Non-Hazardous

Signal word: non-hazard

Section 3: Composition/ Information on Ingredients

<table>
<thead>
<tr>
<th>Item#</th>
<th>Name</th>
<th>EINECS</th>
<th>CAS#</th>
<th>% in product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2-Anthracensulfonic acid, 9-amino-9,10-dihydro-1,3-dihydroxy-9,10-dioxo-monosodium salt</td>
<td>229-088-0</td>
<td>0006409774</td>
<td>0 - 5</td>
</tr>
<tr>
<td>2</td>
<td>Aluminum potassium sulfate dodecahydrate</td>
<td>Unknown</td>
<td>0007784249</td>
<td>6 - 10</td>
</tr>
<tr>
<td>3</td>
<td>Water</td>
<td>231-791-2</td>
<td>0007732185</td>
<td>91 - 100</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

Contact medical personnel.
Flush eyes with flowing water for at least 15 minutes.
If swallowed, wash out mouth with water if person is conscious.
Separate eyelids with finger tips.
Wash skin with deluge of water for at least 15 minutes.

Section 5: Fire Fighting Measures

Flash point, deg F.: >200
Method: Autoignition temperature, deg. F.: no data
UEL: no data
LEL: no data
Flammability Classification: no data
Flame Propagation Rate: no data
Hazardous Combustion Products: sulfur compounds; nitrogen compounds

Section 6: Accidental Release Measures

Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel.

No special measures are indicated.

Section 7: Handling and Storage
Section 8: Exposure Controls/Personal Protection

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves.

No special protection is indicated.

Chemical-resistant gloves should be worn whenever this material is handled. The glove material has to be impermeable and resistant to the product. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water. All glove recommendations presume that the risk of exposure is through splash and not intentional immersion of the hands into the product.

Since glove permeation data does not exist for this material, no recommendation for the glove material can be given for the product. Permeation data must be obtained from the glove manufacturer to determine if the glove is suitable for the task.

Section 9: Physical and Chemical Properties

- Formula: no data
- Formula Weight: no data
- boiling point: 212
- melting point: 32
- solubility: miscible
- vapor pressure: no data
- Specific gravity: 1.01
- ph: no data
- appearance: clear dark red liquid

Section 10: Stability and Reactivity

- Chemical Stability: stable
- Conditions to Avoid: none
- Incompatibility with other materials: none
- Hazardous Decomposition Products: no data
- Hazardous Polymerization: will not occur

Section 11: Toxicological Information

- Acute Data: no data
- Subchronic data: no data

Section 12: Ecological Information

- no data

Section 13: Disposal Considerations

The following chart lists the status of the chemicals and its components in reference to 40 CFR Part 261.33. If the product is listed by code number, the substance may be subject to special federal and state disposal regulations. If no codes are listed the material must be disposed in compliance with all Federal, State, and Local Regulations.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Waste Code</th>
<th>Regulated Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>0006409774</td>
<td>not listed</td>
<td>not listed</td>
</tr>
<tr>
<td>0007732185</td>
<td>not listed</td>
<td>not listed</td>
</tr>
<tr>
<td>0007784249</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

Section 14: Transportation Data

- Proper Shipping Name: NOT REGULATED
- Chemical Name: UN
Section 15: Regulatory Information

This product contains a component which does not appear on the TSCA public inventory. It is manufactured or imported only in small quantities and solely for research and development.

All usage of this product must comply with 40 CFR 720.36.

This chemical substance must be used by, or directly under the supervision of, a technically qualified individual.

You must notify all persons who are engaged in experimentation, research, or analysis on the chemical substance, including the manufacture, possessing, use, transport, storage, and disposal of the substance of any known risk to health.

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Prop 65 - Column A identifies those items which are known to the State of California to cause cancer. Column B identified items which are known to the State of California to cause reproductive toxicity.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>0006409774</td>
<td>no</td>
<td>no</td>
</tr>
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<td>no</td>
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<tr>
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<td>no</td>
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</tbody>
</table>

State Regulatory Information: If a CAS# is listed below this material is subject to the listed state right-to-know requirements.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Regulated name</th>
<th>de minimis conc. %</th>
<th>Rep. Thres.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0006409774</td>
<td>not listed</td>
<td>not listed</td>
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SARA Toxic Release Chemicals (as defined in Section 313 of SARA Title III)
This list identifies the toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). The list is also referred to as the Toxics Release Inventory (TRI) List.

<table>
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SARA Extremely Hazardous Substances and TPOs
This list includes hazardous chemicals as defined in 29 CFR 1910.1200(c); and extremely hazardous substances regulated under Section 302 of SARA Title III with their TPOs (in pounds), as listed in 40 CFR 355, Appendices A and B.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Regulated name</th>
<th>TPQ (pounds)</th>
<th>EHS-RQ(pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0006409774</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
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<tr>
<td>0007732185</td>
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CERCLA
The hazardous substances, and their reportable quantities (RQs) are listed in the federal regulations at 40 CFR Part 302, Table 302.4. Release of a CERCLA hazardous substance in an amount equal to or greater than its RQ, in any 24-hour period, must be reported to the National Response Center at (800) 424-8802.

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Regulated name</th>
<th>RQ (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0006409774</td>
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Section 16: Other Information
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END OF MSDS