Section I - Product Identification
An solution of nuclear fast red and aluminum sulfate in water.

Section II - Hazards Identification
Overview: May be harmful if swallowed. May be irritating to skin eyes and respiratory tract.

Safety Ratings
Health: Slight     Flammability: None     Reactivity: None     Contact: Slight
Recommended safety equipment: safety goggles, lab coat and proper gloves
Storage: General storage

NFPA Ratings
Health = 1     Flammability = 0     Reactivity = 0

Potential Health Effects
The toxicology of this compound have not been completely examined. It is presumed that the toxicity of this item is similar to other aluminum compounds.

Inhalation: May be irritating

Ingestion: While the toxicity of this compound is low, large doses may cause nausea, vomiting, diarrhea, etc. Death has resulted from ingesting large amounts of alum.

Skin contact: Not normally a problem.

Eye contact: May be irritating.

Chronic Exposure: Unknown.

Aggravation of preexisting conditions: Unknown

Section III - Composition/Information on Components

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS#</th>
<th>OSHA Pel ACGIH TLV</th>
<th>Other Limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear fast red</td>
<td>6409-77-4</td>
<td></td>
<td></td>
<td>0.1% w/v</td>
</tr>
<tr>
<td>Aluminum sulfate</td>
<td>7784-31-8</td>
<td>2 mg/m³ (Al) TWA</td>
<td>2 mg/m³ (Al) TWA</td>
<td>5% w/v</td>
</tr>
</tbody>
</table>

Section IV - First Aid Measures

Inhalation: Remove from source of exposure and get medical attention for any breathing difficulty.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Skin Contact: Wash affected area with soap and water. Get medical advice if irritation develops.

Eye Contact: Rinse thoroughly with running water. Get medical advice if irritation develops.
Section V - Fire Fighting Measures

Flash point: Not applicable.

Fire: Not normally a fire hazard.

Explosion: Not normally an explosion hazard.

Fire Extinguishing Media: Any means suitable for surrounding fire.

Special information: Pyrolysis will release corrosive oxides.

Section VI - Accidental Release Measures
Absorb with a suitable absorbent (such as paper towels) and store in a suitable container for disposal.

Section VII - Handling and Storage
Store in a closed container, protected from freezing.

Section VIII - Exposure Control/Personal Protection

Airborne Exposure Limits: See section III.


Personal Respirator: Usually not required.

Skin Protection: Protective gloves are not required but recommended as part of good laboratory practice.

Eye Protection: Laboratory safety goggles or similar products are not required but recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

Boiling Point: 100 °C

Vapor pressure (mm Hg): 18 @ 20 °C

Vapor Density (air = 1): 0.6

Appearance and Odor: A clear, dark red or purple liquid.

Density: About 1.02 g/ml

Evaporation Rate (water = 1): 1

Solubility: Infinitely miscible with water

Section X - Stability and Reactivity

Stability: Freezes at low temperature.

Hazardous Decomposition Products: Nothing unusual.

Hazardous polymerization: Will not occur.

Incompatibilities: Nothing unusual.

Conditions to avoid: Excessive cold/heat and light.

Section XI - Toxicological Information

None relating to normal exposure.

Cancer lists

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Known Carcinogenicity?</th>
<th>Anticipated?</th>
<th>IARC Category</th>
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</thead>
<tbody>
<tr>
<td>Nuclear fast red</td>
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<td>no</td>
<td>none</td>
</tr>
<tr>
<td>Aluminum sulfate</td>
<td>no</td>
<td>no</td>
<td>none</td>
</tr>
</tbody>
</table>

Section XII - Ecological Information

Environmental Fate: Biodegradable

Environmental Toxicity: None

Section XIII - Disposal Considerations

Usually not restricted but local governments can restrict the amounts of dyes and salts that may be flushed down the drain. Insure compliance with all government regulation.

SDS for Nuclear Fast Red Stain, page 2 of 3
Section XIV - Transportation information
Not regulated.

Section XV - Regulatory Information

Chemical Inventory Status

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear fast red</td>
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<td>Yes</td>
</tr>
<tr>
<td>Aluminum sulfate</td>
<td>Yes</td>
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Federal, State and International Regulations

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<tr>
<th>Ingredient</th>
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<th>SARA 313</th>
<th>RCRA</th>
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<tr>
<td>Nuclear fast red</td>
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<td>No</td>
</tr>
<tr>
<td>Aluminum sulfate</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Chemical Weapons Convention: No  TSCA 12(b): No  CDTA: No
SARA 311/312: Acute: Yes, Chronic: No

Section XVI - Other Information
This information is believed to be correct but is not warranted as such, nor does it purport to be all inclusive.

Revision Date: Jan. 3, 2018