Section 1: Chemical Product and Company Identification
Cat#: 25094C
Part Name: 2.5% FERRIC AMMONIUM SULFATE
Supplier: Polysciences, Inc.
400 Valley Road
Warrington, PA 18976 USA
MSDS Telephone #215-343-6484 Emergency only #215-378-4526

Identified uses: Laboratory use, manufacture of substances

Section 2: Hazards Identification
Hazard Overview
Low hazard for usual industrial or commercial handling.
GHS Classification
Non-Hazardous

Signal word: non-hazard

Hazard and Precautionary Statements
H000 Low hazard for normal industrial use
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P280A Wear protective gloves
P301A IF SWALLOWED do not induce vomiting. Do not give anything to drink. Obtain medical attention without delay.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P313 Get medical advice/attention.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P351 Rinse cautiously with water for several minutes.
P501 Dispose of contents/container to proper waste area in accordance with institutional practices and local, state or federal regulations.

NFPA Rating
These ratings are Polysciences’ Inc. own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and List 49).

If no data is listed the information is not available.

Health Flammability Reactivity
1 0 0

Section 3: Composition/ Information on Ingredients
Note: Items listed with a CASRN... number have no CAS# available.

<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>Ammonium iron bis(sulphate)</td>
<td>Unknown</td>
<td>0007783837</td>
<td>0 - 5</td>
</tr>
<tr>
<td>2</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 breathing is difficult, contact emergency personnel.
If swallowed, wash out mouth with water if person is conscious.
Remove to fresh air.
Wash skin with deluge of water for at least 15 minutes.

Section 5: Fire Fighting Measures
Flash point, deg F.: no data
UEL: no data
LEL: no data
Autoignition temperature, deg. F.: no data
Flame Propagation Rate: no data

Section 6: Accidental Release Measures
Absorb liquids on absorbent material.
Contain spilled liquids.
Use appropriate personal protective equipment.

Section 7: Handling and Storage
Store at 4 deg. C.

Section 8: Exposure Controls/ Personal Protection

OSHA (ACGIH) Exposure Limits

<table>
<thead>
<tr>
<th>CAS#</th>
<th>OSHA</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>0007732185</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>0007783837</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

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.

Use chemical splash goggles and face shield.

Use latex or equivalent gloves.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>mixture</td>
</tr>
<tr>
<td>Formula Weight</td>
<td>mixture</td>
</tr>
<tr>
<td>boiling point</td>
<td>no data</td>
</tr>
<tr>
<td>melting point</td>
<td>no data</td>
</tr>
<tr>
<td>solubility</td>
<td>no data</td>
</tr>
<tr>
<td>vapor pressure</td>
<td>no data</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1</td>
</tr>
<tr>
<td>ph</td>
<td>no data</td>
</tr>
<tr>
<td>appearance</td>
<td>liquid</td>
</tr>
</tbody>
</table>

Section 10: Stability and Reactivity

Chemical Stability: stable
Conditions to Avoid: no data
Incompatibility with other materials: no data
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 chemical 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>0007732185</td>
<td>not listed</td>
<td>not listed</td>
</tr>
<tr>
<td>0007783837</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

Section 14: Transportation Data

Proper Shipping Name: NOT REGULATED
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.

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.

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

CAS# | Column A | Column B
---|---|---
0007732185 | no | no
0007783837 | no | no

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

CAS# |
---|
0007732185 | not listed |
0007783837 | not listed |

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.

---|---|---|---
0007732185 | not listed | not listed | not listed
0007783837 | not listed | not listed | not listed

SARA Extremely Hazardous Substances and TPQs

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 TPQs (in pounds), as listed in 40 CFR 355, Appendices A and B.

CAS# | Regulated name | TPQ (pounds) | EHS-RQ (pounds)
---|---|---|---
0007732185 | not listed | not listed | not listed
0007783837 | not listed | not listed | not listed

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.

CAS# | Regulated name | RQ (pounds)
---|---|---
0007732185 | Not listed | Not listed
0007783837 | Not listed | Not listed

Section 16: Other Information

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END OF MSDS