# Safety Data Sheet  
**acc. to OSHA HCS**  
Printing date 01/14/2016  
Reviewed on 01/14/2016

## 1 Identification

- **Product identifier**
  - Trade name: **FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS**
  - Article number: 26684-01
  - Application of the substance / the mixture Laboratory chemicals

- **Details of the supplier of the safety data sheet**
  - Manufacturer/Supplier: Electron Microscopy Sciences  
    1560 Industry Road  
    USA-Hatfield, PA 19440  
    Tel: 215-412-8400  
    Fax: 215-412-8450  
    email: sgkck@aol.com  
    www.emsdiasum.com
  - **Information department:** Product safety department  
  - **Emergency telephone number:**  
    ChemTrec 1-800-424-9300 Contract CCN7661  
    1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**
  
  ![GHS07](image)

  Acute Tox. 4  **H312** Harmful in contact with skin.  
  Skin Irrit. 2  **H315** Causes skin irritation.  
  Eye Irrit. 2B  **H320** Causes eye irritation.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).  
  - **Hazard pictograms**

  ![GHS07](image)

- **Signal word** Warning
- **Hazard statements**  
  Harmful in contact with skin.  
  Causes skin and eye irritation.
- **Precautionary statements**
  Wear protective gloves / protective clothing.  
  Wash thoroughly after handling.  
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
  Specific treatment (see on this label).  
  Call a POISON CENTER/doctor if you feel unwell.  
  If skin irritation occurs: Get medical advice/attention.  
  If eye irritation persists: Get medical advice/attention.  
  IF ON SKIN: Wash with plenty of water.  
  Take off contaminated clothing and wash it before reuse.
Trade name: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

Store in a well-ventilated place. Keep cool.
Store in a closed container.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
  - NFPA ratings (scale 0 - 4)
    
    - Health = 2
    - Fire = 0
    - Reactivity = 0
  
  - HMIS-ratings (scale 0 - 4)

  - Other hazards
    - Results of PBT and vPvB assessment
      - PBT: Not applicable.
      - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.
- Dangerous components: Void

4 First-aid measures

- Description of first aid measures
- General information:
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
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Trade name: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

6 Accidental release measures

- **Advice for firefighters**: No special measures required.

- **Personal precautions, protective equipment and emergency procedures**: Not required.

- **Environmental precautions**: Dilute with plenty of water.

- **Methods and material for containment and cleaning up**:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.

- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- **Handling**
  - **Precautions for safe handling**
    - Ensure good ventilation/exhaustion at the workplace.
    - Prevent formation of aerosols.
  - **Information about protection against explosions and fires**: No special measures required.

- **Conditions for safe storage, including any incompatibilities**

- **Storage**
  - **Requirements to be met by storerooms and receptacles**: No special requirements.
  - **Information about storage in one common storage facility**: Not required.
  - **Further information about storage conditions**
    - Keep receptacle tightly sealed.
  - **Specific end use(s)**
    - No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems**: No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace**:
  - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information**: The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment**:

- **General protective and hygienic measures**:
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes and skin.

- **Breathing equipment**:
  - In case of brief exposure or low pollution use respiratory filter device.
  - In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

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## 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Amber colored</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>Undetermined</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous)</strong></td>
<td>Not flammable</td>
</tr>
<tr>
<td><strong>Ignition temperature</strong></td>
<td></td>
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<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Auto igniting</strong></td>
<td>Product is not selfigniting.</td>
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<tr>
<td><strong>Danger of explosion</strong></td>
<td>Product does not present an explosion hazard.</td>
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<tr>
<td><strong>Explosion limits</strong></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>Not determined</td>
</tr>
</tbody>
</table>
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Trade name: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

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10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: Irritant to skin and mucous membranes.
    - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    The product shows the following dangers according to internally approved calculation methods for preparations:
    Harmful
    Irritant
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    None of the ingredients is listed.
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety Health Administration)
    None of the ingredients is listed.

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12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes: Not known to be hazardous to water.
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
  DOT, ADR, IMDG, IATA: Void
- UN proper shipping name
  DOT, ADR, IMDG, IATA: Void
- Transport hazard class(es)
  DOT, ADR, IMDG, IATA: Void
- Class: Void
- Packing group
  DOT, ADR, IMDG, IATA: Void
- Environmental hazards: Not applicable.
- Special precautions for user: Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.
- UN "Model Regulation": Void
### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Section 355 (extremely hazardous substances):**
  - None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**
  - None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):**
  - 7732-18-5 water, distilled, conductivity or of similar purity
- **Proposition 65**
  - **Chemicals known to cause cancer:**
    - None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for females:**
    - None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for males:**
    - None of the ingredients is listed.
  - **Chemicals known to cause developmental toxicity:**
    - None of the ingredients is listed.
- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    - None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    - None of the ingredients is listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - None of the ingredients is listed.
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**
  - GHS07

**Signal word** Warning

**Hazard statements**
- Harmful in contact with skin.
- Causes skin and eye irritation.

**Precautionary statements**
- Wear protective gloves / protective clothing.
- Wash thoroughly after handling.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Specific treatment (see on this label).
- Call a POISON CENTER/doctor if you feel unwell.
- If skin irritation occurs: Get medical advice/attention.
- If eye irritation persists: Get medical advice/attention.
- IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse. Store in a well-ventilated place. Keep cool. Store in a closed container. Dispose of contents/container in accordance with local/regional/national/international regulations.  
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Date of preparation / last revision 01/14/2016 / -

· Abbreviations and acronyms:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  - Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS
- **Article number:** 26684-01
- **Relevant identified uses of the substance or mixture and uses advised against**
  - No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    Electron Microscopy Sciences
    1560 Industry Road
    USA-Hatfield, PA 19440
    Tel: 215-412-8400  Fax: 215-412-8450
    email: sgkck@aol.com
    www.emsdiasum.com
  - ProSciTech Pty Ltd
    11 Carlton Street, Kirwan QLD 4817 Australia
    Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
    Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
  - Emgrid Australia Pty. Ltd.
    P.O. Box 118
    The Patch VIC 3792
    Australia
    Tel: 03 9752 1785
    Fax: 03 9752 1784
    Website: www.emgrid.com.au
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
  - ChemTrec 1-800-424-9300 Contract CCN7661
  - 1-703-527-3887

2 Hazards identification

- **Classification of the substance or mixture**
  - GHS07
  - Acute Tox. 4  H312  Harmful in contact with skin.
  - Skin Irrit. 2  H315  Causes skin irritation.
  - Eye Irrit. 2  H319  Causes serious eye irritation.
- **Label elements**
- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**
  - GHS07
- **Signal word** Warning
Hazard statements
Harmful in contact with skin.
Causes skin irritation.
Causes serious eye irritation.

Precautionary statements
Wear protective gloves / protective clothing.
Wear eye protection / face protection.
Wash thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Specific treatment (see on this label).
Call a POISON CENTER/doctor if you feel unwell.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place. Keep cool.
Store in a closed container.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.
Dangerous components: Void
Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

Description of first aid measures
General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation: In case of unconsciousness place patient stably in side position for transportation.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: If symptoms persist consult doctor.
Information for doctor:
Most important symptoms and effects, both acute and delayed No further relevant information available.
Indication of any immediate medical attention and special treatment needed
No further relevant information available.
5 Firefighting measures

- Extinguishing media
  - Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
  - Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
- Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- Handling:
  - Precautions for safe handling
    - Ensure good ventilation/exhaustion at the workplace.
    - Prevent formation of aerosols.
  - Information about fire - and explosion protection: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: Keep container tightly sealed.
  - Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- Control parameters
  - Ingredients with limit values that require monitoring at the workplace:
    - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - Additional information: The lists valid during the making were used as basis.
- Exposure controls
  - Personal protective equipment:
  - General protective and hygienic measures:
    - Keep away from foodstuffs, beverages and feed.
    - Immediately remove all soiled and contaminated clothing.
    - Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

- **Respiratory protection:**
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**

  ![Protective gloves]

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**

  ![Tightly sealed goggles]

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - **Form:** Liquid
    - **Colour:** Amber coloured
    - **Odour:** Characteristic
    - **Odour threshold:** Not determined.
  - **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**
  - **Decomposition temperature:** Not determined.
  - **Self-igniting:** Product is not selfigniting.
  - **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - **Lower:** Not determined.
Trade name: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

10 Stability and reactivity

- Reactivity: Not determined.
- Chemical stability: Not determined.
- Thermal decomposition / conditions to be avoided: Not determined.
- Possibility of hazardous reactions: Not determined.
- Conditions to avoid: Not determined.
- Incompatible materials: Not determined.
- Hazardous decomposition products: Not determined.

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity: Not determined.
  - Primary irritant effect: Not determined.
  - Skin corrosion/irritation: Irritant to skin and mucous membranes.
  - Serious eye damage/irritation: Irritating effect.
  - Respiratory or skin sensitisation: Not determined.
- Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
  - Harmful
  - Irritant

12 Ecological information

- Toxicity
  - Aquatic toxicity: Not determined.
  - Persistence and degradability: Not determined.
Trade name: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

- Behaviour in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes: Not known to be hazardous to water.
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

- UN-Number
  - ADG, ADN, IMDG, IATA Void
- UN proper shipping name
  - ADG, ADN, IMDG, IATA Void
- Transport hazard class(es)
  - ADG, ADN, IMDG, IATA
  - Class Void
- Packing group
  - ADG, IMDG, IATA Void
- Environmental hazards:
  - Not applicable.
- Special precautions for user
  - Not applicable.
- Transport in bulk according to Annex II of Marpol and the IBC Code
  - Not applicable.
- UN "Model Regulation": Void

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Australian Inventory of Chemical Substances
    - All ingredients are listed.
  - Standard for the Uniform Scheduling of Medicines and Poisons
    - None of the ingredients is listed.
  - GHS label elements
    - The product is classified and labelled according to the Globally Harmonised System (GHS).

(Contd. of page 5)
Trade name: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

- **Hazard pictograms**

[![Safety pictogram](image)](image)

- **Signal word** Warning
- **Hazard statements**
  Harmful in contact with skin.
  Causes skin irritation.
  Causes serious eye irritation.
- **Precautionary statements**
  Wear protective gloves / protective clothing.
  Wear eye protection / face protection.
  Wash thoroughly after handling.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Specific treatment (see on this label).
  Call a POISON CENTER/doctor if you feel unwell.
  If skin irritation occurs: Get medical advice/attention.
  If eye irritation persists: Get medical advice/attention.
  IF ON SKIN: Wash with plenty of water.
  Take off contaminated clothing and wash it before reuse.
  Store in a well-ventilated place. Keep cool.
  Store in a closed container.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Abbreviations and acronyms:**
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Acute Tox. 4: Acute toxicity, Hazard Category 4
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
### 1 Identification

- **Product identifier**
  - **Trade name:** FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS
  - **Article number:** 26684-01
  - **Application of the substance / the mixture** Laboratory chemicals

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Electron Microscopy Sciences
    - 1560 Industry Road
    - USA-Hatfield, PA 19440
    - Tel: 215-412-8400  Fax: 215-412-8450
    - email: sgkcck@aol.com
    - www.emsdiasum.com

  - **Information department:** Product safety department

- **Emergency telephone number:**
  - ChemTrec 1-800-424-9300 Contract CCN7661
  - 1-703-527-3887

### 2 Hazard(s) identification

- **Classification of the substance or mixture**

  - GHS07

  - **Acute Toxicity (Dermal) – Category 4** H312 Harmful in contact with skin.

  - **Skin Corrosion - Category 3** H316 Causes mild skin irritation.

  - **Eye Irritation - Category 2B** H320 Causes eye irritation.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**

  - GHS07

- **Signal word** Warning

- **Hazard statements**
  - Harmful in contact with skin.
  - Causes mild skin irritation.
  - Causes eye irritation.

- **Precautionary statements**
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - Wash thoroughly after handling.
  - **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Specific measures (see on this label).
  - Call a POISON CENTER/doctor if you feel unwell.
  - Wash contaminated clothing before reuse.
  - **If eye irritation persists:** Get medical advice/attention.
  - **IF ON SKIN:** Wash with plenty of water.

(Contd. on page 2)
Trade name: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

Store in a well-ventilated place. Keep cool.
Store in a closed container.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard description:
WHMIS-symbols:
D2B - Toxic material causing other toxic effects

Classification system:
NFPA ratings (scale 0 - 4)
Health = 2
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)
Health = 2
Fire = 0
Reactivity = 0

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.
Dangerous components: Void

4 First-aid measures

Description of first aid measures
General information:
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation: In case of unconsciousness place patient stably in side position for transportation.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: If symptoms persist consult doctor.
Information for doctor:
Most important symptoms and effects, both acute and delayed: No further relevant information available.
Indication of any immediate medical attention and special treatment needed:
No further relevant information available.
5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
- Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- Handling:
- Precautions for safe handling
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

- **Breathing equipment:**
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**
  Protective gloves
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - **Material of gloves**
    The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
  - **Penetration time of glove material**
    The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
  Tightly sealed goggles

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### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:**
    - **Form:** Liquid
    - **Color:** Amber colored
    - **Odor:** Characteristic
    - **Odor threshold:** Not determined.
  - **pH-value:** Not determined.

- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
  - **Boiling point/Boiling range:** Undetermined.

- **Flash point:** Not applicable.

- **Flammbility (solid, gaseous):** Not flammable.

- **Ignition temperature:**
  - **Decomposition temperature:** Not determined.
  - **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:**
  - **Product does not present an explosion hazard.**

- **Explosion limits:**
  - **Lower:** Not determined.
Safety Data Sheet  
acc. to OSHA HCS

Trade name: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: Irritant to skin and mucous membranes.
    - on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  Harmful
  Irritant

- Carcinogenic categories
- IARC (International Agency for Research on Cancer)
  None of the ingredients is listed.
- NTP (National Toxicology Program)
  None of the ingredients is listed.
12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behavior in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes: Not known to be hazardous to water.
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
  Recommendation: Disposal must be made according to official regulations.
  Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
  - DOT, TDG, ADN, IMDG, IATA: Void
- UN proper shipping name
  - DOT, TDG, ADN, IMDG, IATA: Void
- Transport hazard class(es)
  - DOT, TDG, ADN, IMDG, IATA
    - Class: Void
- Packing group
  - DOT, TDG, IMDG, IATA: Void
- Environmental hazards:
  - Not applicable.
- Special precautions for user
  - Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.
- UN "Model Regulation":
  - Void
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
    - Section 355 (extremely hazardous substances):
      None of the ingredients is listed.
    - Section 313 (Specific toxic chemical listings):
      None of the ingredients is listed.
    - TSCA (Toxic Substances Control Act):
      7732-18-5 water, distilled, conductivity or of similar purity
    - Proposition 65
      - Chemicals known to cause cancer:
        None of the ingredients is listed.
      - Chemicals known to cause reproductive toxicity for females:
        None of the ingredients is listed.
      - Chemicals known to cause reproductive toxicity for males:
        None of the ingredients is listed.
      - Chemicals known to cause developmental toxicity:
        None of the ingredients is listed.
    - Carcinogenic categories
      - EPA (Environmental Protection Agency)
        None of the ingredients is listed.
      - TLV (Threshold Limit Value established by ACGIH)
        None of the ingredients is listed.
      - NIOSH-Ca (National Institute for Occupational Safety and Health)
        None of the ingredients is listed.
    - Canadian substance listings:
      - Canadian Domestic Substances List (DSL)
        7732-18-5 water, distilled, conductivity or of similar purity
      - Canadian Ingredient Disclosure list (limit 0.1%)
        None of the ingredients is listed.
      - Canadian Ingredient Disclosure list (limit 1%)
        None of the ingredients is listed.
    - GHS label elements
      The product is classified and labeled according to the Globally Harmonized System (GHS).
    - Hazard pictograms
      GHS07
      - Signal word
        Warning
      - Hazard statements
        Harmful in contact with skin.
        Causes mild skin irritation.
        Causes eye irritation.
Precautionary statements
Wear protective gloves/protective clothing/eye protection/face protection.
Wash thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Specific measures (see on this label).
Call a POISON CENTER/doctor if you feel unwell.
Wash contaminated clothing before reuse.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water.
Store in a well-ventilated place. Keep cool.
Store in a closed container.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Date of preparation / last revision 01/14/2016 / -

Abbreviations and acronyms:
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety Health
Acute Toxicity (Dermal) – Category 4: Acute toxicity, Hazard Category 4
Skin Corrosion - Category 3: Skin corrosion/irritation, Hazard Category 3
Eye Irritation - Category 2B: Serious eye damage/eye irritation, Hazard Category 2B
Safety data sheet  
according to 1907/2006/EC, Article 31

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
- Trade name: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS
- Article number: 26684-01

1.2 Relevant identified uses of the substance or mixture and uses advised against
- No further relevant information available.
- Application of the substance / the mixture: Laboratory chemicals

1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Electron Microscopy Sciences
  1560 Industry Road
  USA-Hatfield, PA 19440
  Tel: 215-412-8400  Fax: 215-412-8450
  email: sgkcek@aol.com
  www.emsdiasum.com

- Further information obtainable from: Product safety department

1.4 Emergency telephone number:
- ChemTrec 1-800-424-9300 Contract CCN7661
  1-703-527-3887

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

GHS07

Acute Tox. 4  H312  Harmful in contact with skin.

Skin Irrit. 2  H315  Causes skin irritation.

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
  The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS07

- Signal word: Warning
- Hazard statements
  H312 Harmful in contact with skin.
  H315 Causes skin irritation.
- Precautionary statements
  P280 Wear protective gloves/protective clothing/eye protection/face protection.
  P321 Specific treatment (see on this label).
  P312 Call a POISON CENTER/doctor if you feel unwell.
  P332+P313 If skin irritation occurs: Get medical advice/attention.
  P403+P235 Store in a well-ventilated place. Keep cool.
  P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)
Trade name: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

- 2.3 Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
  - Description: Mixture of substances listed below with nonhazardous additions.
  - Dangerous components: Void
  - Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures
  - General information:
    Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  - After inhalation: In case of unconsciousness place patient stably in side position for transportation.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
  - Suitable extinguishing agents:
    CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
  - Protective equipment: No special measures required.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- 6.2 Environmental precautions: Dilute with plenty of water.
- 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
- 6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

(Contd. on page 3)
SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
- Information about fire - and explosion protection: No special measures required.

- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: Keep container tightly sealed.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists valid during the making were used as basis.

- 8.2 Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
  - Respiratory protection:
    In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
  - Protection of hands:
    
    Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - **Form:** Liquid
    - **Colour:** Amber coloured
    - **Odour:** Characteristic
    - **Odour threshold:** Not determined.
  - **pH-value:** Not determined.
  - **Change in condition**
    - **Melting point/Melting range:** Undetermined.
    - **Boiling point/Boiling range:** Undetermined.
  - **Flash point:** Not applicable.
  - **Flammability (solid, gaseous):** Not applicable.
  - **Ignition temperature:**
    - **Decomposition temperature:** Not determined.
  - **Self-igniting:** Product is not selfigniting.
  - **Danger of explosion:** Product does not present an explosion hazard.
  - **Explosion limits:**
    - **Lower:** Not determined.
    - **Upper:** Not determined.
  - **Vapour pressure:** Not determined.
  - **Density:** Not determined.
  - **Relative density:** Not determined.
  - **Vapour density:** Not determined.
  - **Evaporation rate:** Not determined.
  - **Solubility in / Miscibility with water:** Fully miscible.
  - **Partition coefficient (n-octanol/water):** Not determined.
  - **Viscosity:**
    - **Dynamic:** Not determined.
    - **Kinematic:** Not determined.
  - **Solvent content:**
    - **Organic solvents:** 0.0 %
    - **Water:** 97.5 %
    - **VOC (EC):** 0.00 %
SECTION 10: Stability and reactivity

- 10.1 Reactivity: No further relevant information available.
- 10.2 Chemical stability:
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions: No dangerous reactions known.
- 10.4 Conditions to avoid: No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects:
- Acute toxicity: Harmful in contact with skin.
- Primary irritant effect:
- Skin corrosion/irritation: Causes skin irritation.
- Serious eye damage/irritation: Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.
- STOT-single exposure: Based on available data, the classification criteria are not met.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity:
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability: No further relevant information available.
- 12.3 Bioaccumulative potential: No further relevant information available.
- 12.4 Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes: Not known to be hazardous to water.
- 12.5 Results of PBT and vPvB assessment:
- PBT: Not applicable.
- vPvB: Not applicable.
- 12.6 Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods:
- Recommendation:
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.
SECTION 14: Transport information

- **14.1 UN-Number**
  - ADR, ADN, IMDG, IATA: Void

- **14.2 UN proper shipping name**
  - ADR, ADN, IMDG, IATA: Void

- **14.3 Transport hazard class(es)**
  - ADR, ADN, IMDG, IATA: Void

- **14.4 Packing group**
  - ADR, IMDG, IATA: Void

- **14.5 Environmental hazards:**
  - Not applicable.

- **14.6 Special precautions for user**
  - Not applicable.

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
  - Not applicable.

- **UN "Model Regulation":**
  - Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I**
  - None of the ingredients is listed.

- **15.2 Chemical safety assessment:**
  - A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - VOC: Volatile Organic Compounds (USA, EU)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

1.1 Productidentificatie

Handelsnaam: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS
Artikelnummer: 26684-01

1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik
Geen verdere relevante informatie verkrijgbaar.

1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad
Fabrikant/leverancier:
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400  Fax: 215-412-8450
e-mail: sgkck@aol.com
www.emsdiasum.com

Aurion
Binnenhaven 5
6709 PD Wageningen
The Netherlands
Tel: 31 317 415094
Fax: 31 317 415955
e-mail: info@aurion.nl

Inlichtingengevende sector: Product safety department

1.4 Telefoonnummer voor noodgevallen:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

2.1 Indeling van de stof of het mengsel
Indeling overeenkomstig Verordening (EG) nr. 1272/2008

GHS07

Acute Tox. 4 H312 Schadelijk bij contact met de huid.
Skin Irrit. 2 H315 Veroorzaakt huidirritatie.

2.2 Etiketteringselementen
Etikettering overeenkomstig Verordening (EG) nr. 1272/2008
Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

Gevarenpictogrammen

GHS07

Signaalwoord Waarschuwing
Gevaarwaarschuwingen
H312 Schadelijk bij contact met de huid.
H315 Veroorzaakt huidirritatie.
Veiligheidsaanbevelingen
P280 Beschermende handschoenen/beschermende kleding/oogbescherming/gelaatsbescherming dragen.

(Vervolg op blz. 2)
RUBRIEK 3: Samenstelling en informatie over de bestanddelen

- 3.2 Chemische karakterisering: Mengsels
  - Beschrijving: Mengsel van na elkaar aangevoerde stoffen met ongevaarlijke bijmengingen.
  - Gevaarlijke inhoudstoffen: Niet van toepassing
  - Aanvullende gegevens:
    De woordelijke inhoud van de opgegeven aanwijzingen inzake de mogelijke gevaren is te vinden in hoofdstuk 16.

RUBRIEK 4: Eerstehulpmaatregelen

- 4.1 Beschrijving van de eerstehulpmaatregelen
  - Algemene informatie:
    Het is mogelijk dat vergiftigingsymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.
  - Na het inademen: Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
  - Na huidcontact: Onmiddellijk met water en zeep afwassen en goed naspoelen.
  - Na oogcontact: De ogen gedurende verscheidene minuten onder stromend water afspoelen terwijl de oogspleet geopend blijft. Bij aanhoudende klachten een dokter raadplegen.

RUBRIEK 5: Brandbestrijdingsmaatregelen

- 5.1 Blusmiddelen
  - Geschikte blusmiddelen: CO2, bluspoeder of waterstraal. Grotere brand met waterstraal bestrijden of met schuim, dat tegen alcohol bestand is.
- 5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt
  Geen verdere relevante informatie verkrijgbaar.
- 5.3 Advies voor brandweerlieden
  - Speciale beschermende kleding: Geen bijzondere maatregelen nodig.

RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

- 6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures
  Niet nodig.
- 6.2 Milieuvorzorgsmaatregelen: Met veel water verdunnen.
Veiligheidsinformatieblad
volgens 1907/2006/EG, Artikel 31

Handelsnaam: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

6.3 Insluitings- en reinigingsmethoden en -materiaal:
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.
Besmet materiaal zoals afval volgens punt 13 verwijderen.
Voor voldoende ventilatie zorgen.

6.4 Verwijzing naar andere rubrieken
Informatie inzake veilig gebruik - zie hoofdstuk 7.
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
Informatie inzake berging - zie hoofdstuk 13.

RUBRIEK 7: Hantering en opslag

7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
Aërosolvorming vermijden.

Informatie m.b.t. brand- en ontploffingsgevaar: Geen bijzondere maatregelen noodzakelijk.

7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten
Op slag:
Eisen ten opzichte van opslagruimte en tanks: Geen bijzondere eisen.
Informatie m.b.t. gezamenlijke opslag: Niet noodzakelijk.
Verdere inlichtingen over eisen m.b.t. de opslag: Tanks ondoorzichtig gesloten houden.

7.3 Specifiek eindgebruik Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

Aanvullende gegevens m.b.t. de inrichting van technische installaties: Geen aanvullende gegevens. Zie 7.

8.1 Controleparameters
Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:
Het produkt bevat geen relevante hoeveelheden van stoffen, die met betrekking tot de werkplaatsen, qua grenswaarden gecontroleerd moeten worden.

Aanvullende gegevens: Als basis dienden lijsten die bij opstelling geldig waren.

8.2 Maatregelen ter beheersing van blootstelling
Persoonlijke beschermingsvoorzieningen:
Algemene beschermings- en gezondheidsmaatregelen:
Verwijderd houden van eet- en drinkwaren.
Verontreinigde kleding onmiddellijk uittrekken.
Vóór de pauze en aan het einde van werktijd handen wassen.
Aanraking met de ogen en de huid vermijden.

Ademhalingsbescherming:
Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingsstoel gebruiken.

Handbescherming:
Veiligheidshandschoenen

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliemengsel afgegeven worden.
Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.
Handelsnaam: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

· Handschoenmateriaal
  De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór het gebruik worden getest.

· Doordringingstijd van het handschoenmateriaal
  De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

· Oogbescherming:
  Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

| 9.1 Informatie over fysische en chemische basiseigenschappen |
|-----------------|-----------------|
| · Algemene gegevens | Voorkomen: |
| · Vorm: | Vloeistof |
| · Kleur: | Barnsteenkleurig |
| · Reuk: | Karakteristiek |
| · Geurdrempelwaarde: | Niet bepaald. |
| · pH-waarde: | Niet bepaald. |
| · Toestandsverandering | Smeltpunt/smeltbereik: Niet bepaald. |
| · Kookpunt/kookpuntbereik: | Niet bepaald. |
| · Vlammpt: | Niet bruikbaar. |
| · Ontvlambaarheid (vast, gasvormig): | Niet bruikbaar. |
| · Ontstekingstemperatuur: | Ontbindingstemperatuur: Niet bepaald. |
| · Zelfonsteking: | Het produkt ontbrandt niet uit zichzelf. |
| · Ontploffingsgevaar: | Het produkt is niet ontploffingsgevaarlijk. |
| · Ontploffingsgrenzen: | Onderste: Niet bepaald. |
| · Bovenste: Niet bepaald. |
| · Dampspanning: | Niet bepaald. |
| · Dichtheid: | Niet bepaald. |
| · Relatieve dichtheid | Niet bepaald. |
| · Dampdichtheid | Niet bepaald. |
| · Verdampingssnelheid | Niet bepaald. |
| · Oplosbaarheid in/mengbaarheid met Water: | Volledig mengbaar. |
| · Verdelingscoëfficiënt (n-octanol/water): | Niet bepaald. |
| · Viscositeit | Dynamisch: Niet bepaald. |
Veiligheidsinformatieblad
volgens 1907/2006/EG, Artikel 31
Handelsnaam: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

datum van de druk: 14.01.2016
Herziening van: 14.01.2016

Rubriek 10: Stabiliteit en reactiviteit

10.1 Reactiviteit
Geen verdere relevante informatie verkrijgbaar.

10.2 Chemische stabiliteit

10.3 Mogelijke gevaarlijke reacties
Geen gevaarlijke reacties bekend.

10.4 Te vermijden omstandigheden
Geen verdere relevante informatie verkrijgbaar.

10.5 Chemisch op elkaar inwerkende materialen:
Geen verdere relevante informatie verkrijgbaar.

10.6 Gevaarlijke ontledingsproducten:
Geen gevaarlijke ontbindingsprodukten bekend.

Rubriek 11: Toxicologische informatie

11.1 Informatie over toxicologische effecten

Acute toxiciteit
Schadelijk bij contact met de huid.

Primaire aandoening:

Huidcorrosie/-irritatie
Vooroorzaakt huidirritatie.

Ernstig oogletsel/oogirritatie
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

Sensibilisatie van de luchtwegen/de huid
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)

Mutageniteit in geslachtscellen
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

Kankerverwekkendheid
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

Giftigheid voor de voortplanting
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

STOT bij eenmalige blootstelling
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

STOT bij herhaalde blootstelling
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

Gevaar bij inademing
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

Rubriek 12: Ecologische informatie

12.1 Toxiciteit

Aquatische toxiciteit: Geen verdere relevante informatie verkrijgbaar.

12.2 Persistentie en afbreekbaarheid
Geen verdere relevante informatie verkrijgbaar.

12.3 Bioaccumulatie
Geen verdere relevante informatie verkrijgbaar.

12.4 Mobiliteit in de bodem
Geen verdere relevante informatie verkrijgbaar.

Verdere ecologische informatie:

Algemene informatie:
Waterbezwaarlijkheid (NL) 11: Weinig schadelijk voor water levende organismen.
Geen gevaar voor water bekend.

12.5 Resultaten van PBT- en zPzB-beoordeling

PBT: Niet bruikbaar.

zPzB: Niet bruikbaar.

(Vervolg op blz. 6)
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- 12.6 Andere schadelijke effecten Geen verdere relevante informatie verkrijgbaar.

**RUBRIEK 13: Instructies voor verwijdering**

- 13.1 Afvalverwerkingsmethoden
  - Aanbeveling: Mag niet tesamen met huisvuil gestort worden of in de riolering terechtkomen.
- 13.2 Niet gereinigde verpakkingen:
  - Aanbeveling: Afvalverwijdering volgens overheidsbepalingen.
  - Aanbevolen reinigingsmiddel: Water, eventueel met toevoeging van reinigingsmiddelen.

**RUBRIEK 14: Informatie met betrekking tot het vervoer**

- 14.1 VN-nummer
  - ADR, ADN, IMDG, IATA Niet van toepassing
- 14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN
  - ADR, ADN, IMDG, IATA Niet van toepassing
- 14.3 Transportgevarenklasse(n)
  - ADR, ADN, IMDG, IATA Klasse Niet van toepassing
- 14.4 Verpakkingsgroep:
  - ADR, IMDG, IATA Niet van toepassing
- 14.5 Milieugevaren:
  - Niet bruikbaar.
- 14.6 Bijzondere voorzorgen voor de gebruiker
  - Niet bruikbaar.
- 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code
  - Niet bruikbaar.
- VN "Model Regulation":
  - Niet van toepassing

**RUBRIEK 15: Regelgeving**

- 15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel
  - SZW-lijst van kankerverwekkende stoffen
    - geen der bestanddelen staat op de lijst.
  - SZW-lijst van mutagene stoffen
    - geen der bestanddelen staat op de lijst.
  - NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbareheid
    - geen der bestanddelen staat op de lijst.
  - NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling
    - geen der bestanddelen staat op de lijst.
  - NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding
    - geen der bestanddelen staat op de lijst.
  - Richtlijn 2012/18/EU
    - Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I geen der bestanddelen staat op de lijst.
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- Nationale voorschriften:
  - Gevaarklasse v. water: Waterbezwaarlijkheid (NL) 11: Saneringsinspanning B
  - 15.2 Chemischeveiligheidsbeoordeling: Een chemische veiligheidsbeoordeling is niet uitgevoerd.

RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkтеigenschappen en vestigen geen contractuele rechtsbetrekking.

- Afkortingen en acroniemen:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Acute Tox. 4: Acute toxicity, Hazard Category 4
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

· 1.1 Identificateur de produit

· Nom du produit: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS
· Code du produit: 26684-01

· 1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées
Pas d'autres informations importantes disponibles.

· Emploi de la substance / de la préparation Produits chimiques pour laboratoires

· 1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité
· Producteur/fournisseur:
  Electron Microscopy Sciences
  1560 Industry Road
  USA-Hatfield, PA 19440
  Tel: 215-412-8400 Fax: 215-412-8450
  email: sgkcck@aol.com
  www.emsdiasum.com

· Service chargé des renseignements: Product safety department

· 1.4 Numéro d'appel d'urgence:
  ChemTrec 1-800-424-9300 Contract CCN7661
  1-703-527-3887

RUBRIQUE 2: Identification des dangers

· 2.1 Classification de la substance ou du mélange

· Classification selon le règlement (CE) no 1272/2008

GHS07

Acute Tox. 4  H312  Nocif par contact cutané.
Skin Irrit. 2  H315  Provoque une irritation cutanée.

· 2.2 Éléments d'étiquetage

· Étiquetage selon le règlement (CE) no 1272/2008 Le produit est classifié et étiqueté selon le règlement CLP.

· Pictogrammes de danger

GHS07

· Mention d'avertissement Attention

· Mentions de danger
  H312  Nocif par contact cutané.
  H315  Provoque une irritation cutanée.

· Conseils de prudence
  P280  Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.
  P321  Traitement spécifique (voir sur cette étiquette).
  P312  Appeler un CENTRE ANTIPOISON/un médecin en cas de malaise.
  P332+P313  En cas d'irritation cutanée: consulter un médecin.
  P403+P235  Stocker dans un endroit bien ventilé. Tenir au frais.
  P501  Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/ internationale.
**RUBRIQUE 3: Composition/informations sur les composants**

- **3.2 Caractérisation chimique: Mélange**
  - **Description:** Mélange des substances mentionnées à la suite avec des additifs non dangereux.
  - **Composants dangereux:** néant
  - **Indications complémentaires:** Pour le libellé des phrases de risque citées, se référer au chapitre 16.

**RUBRIQUE 4: Premiers secours**

- **4.1 Description des premiers secours**
  - **Remarques générales:** Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.
  - **Après inhalation:** En cas d’inconscience, coucher et transporter la personne en position latérale stable.
  - **Après contact avec la peau:** Laver immédiatement à l’eau et au savon et bien rincer.
  - **Après contact avec les yeux:** Rincer les yeux, pendant plusieurs minutes, sous l’eau courante en écartant bien les paupières. Si les troubles persistent, consulter un médecin.
  - **Après ingestion:** Si les troubles persistent, consulter un médecin.
- **4.2 Principaux symptômes et effets, aigus et différés** Pas d’autres informations importantes disponibles.
- **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires** Pas d’autres informations importantes disponibles.

**RUBRIQUE 5: Mesures de lutte contre l’incendie**

- **5.1 Moyens d’extinction**
  - **Moyens d’extinction:** CO2, poudre d’extinction ou eau pulvérisée. Combattre les foyers importants avec de l’eau pulvérisée ou de la mousse résistant à l’alcool.
- **5.2 Dangers particuliers résultant de la substance ou du mélange** Pas d’autres informations importantes disponibles.
- **5.3 Conseils aux pompiers**
  - **Equipement spécial de sécurité:** Aucune mesure particulière n’est requise.

**RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle**

- **6.1 Précautions individuelles, équipement de protection et procédures d’urgence** Pas nécessaire.
- **6.2 Précautions pour la protection de l’environnement:** Diluer avec beaucoup d’eau.
- **6.3 Méthodes et matériel de confinement et de nettoyage:** Recueillir les liquides à l’aide d’un produit absorbant (sable, kieselguhr, neutralisant d’acide, liant universel, sciure). Évacuer les matériaux contaminés en tant que déchets conformément au point 13. Assurer une aération suffisante.
- **6.4 Référence à d’autres rubriques** Afin d’obtenir des informations pour une manipulation sûre, consulter le chapitre 7.
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Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.
Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

RUBRIQUE 7: Manipulation et stockage

- 7.1 Précautions à prendre pour une manipulation sans danger
  Veiller à une bonne ventilation/aspiration du poste de travail.
  Éviter la formation d'aérosols.
- Préventions des incendies et des explosions: Aucune mesure particulière n'est requise.
- 7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités
  - Stockage:
    - Exigences concernant les lieux et conteneurs de stockage: Aucune exigence particulière.
    - Indications concernant le stockage commun: Pas nécessaire.
    - Autres indications sur les conditions de stockage: Tenir les emballages hermétiquement fermés.
- 7.3 Utilisation(s) finale(s) particulière(s) Pas d'autres informations importantes disponibles.
Fiche de données de sécurité
selon 1907/2006/CE, Article 31

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Révision: 14.01.2016

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- Temps de pénétration du matériau des gants
  Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.
- Protection des yeux:
  Lunettes de protection hermétiques

### RUBRIQUE 9: Propriétés physiques et chimiques

- 9.1 Informations sur les propriétés physiques et chimiques essentielles
- Indications générales
  - Aspect:
    - Forme: Liquide
    - Couleur: Ambré
  - Odeur: Caractéristique
  - Seuil olfactif: Non déterminé.
  - Valeur du pH: Non déterminé.
  - Changement d'état
    - Point de fusion: Non déterminé.
    - Point d'ébullition: Non déterminé.
  - Point d'éclair: Non applicable.
  - Inflammabilité (solide, gazeux): Non applicable.
  - Température d'inflammation:
    - Température de décomposition: Non déterminé.
  - Auto-inflammation: Le produit ne s'enflamme pas spontanément.
  - Danger d'explosion: Le produit n'est pas explosif.
  - Limites d'explosion:
    - Inférieure: Non déterminé.
    - Supérieure: Non déterminé.
  - Pression de vapeur: Non déterminé.
  - Densité: Non déterminée.
    - Densité relative: Non déterminé.
    - Densité de vapeur: Non déterminé.
    - Vitesse d'évaporation: Non déterminé.
  - Solubilité dans/miscibilité avec l'eau: Entièrement miscible
  - Coefficient de partage (n-octanol/eau): Non déterminé.
  - Viscosité:
    - Dynamique: Non déterminé.
    - Cinématique: Non déterminé.
  - Teneur en solvants:
    - Solvants organiques: 0.0 %
    - Eau: 97.5 %
RUBRIQUE 10: Stabilité et réactivité

- 10.1 Réactivité: Pas d'autres informations importantes disponibles.
- 10.2 Stabilité chimique
- Décomposition thermique/conditions à éviter: Pas de décomposition en cas d'usage conforme.
- 10.3 Possibilité de réactions dangereuses: Aucune réaction dangereuse connue.
- 10.4 Conditions à éviter: Pas d'autres informations importantes disponibles.
- 10.5 Matières incompatibles: Pas d'autres informations importantes disponibles.
- 10.6 Produits de décomposition dangereux: Pas de produits de décomposition dangereux connus.

RUBRIQUE 11: Informations toxicologiques

- 11.1 Informations sur les effets toxicologiques
- Toxicité aiguë: Nocif par contact cutané.
- Effet primaire d’irritation:
  - Corrosion cutanée/irritation cutanée: Provoque une irritation cutanée.
- Lésions oculaires graves/irritation oculaire: Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- Sensibilisation respiratoire ou cutanée: Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- Effets CMR (cancérogène, mutagène et toxique pour la reproduction):
  - Mutagénicité sur les cellules germinales: Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- Cancérogénicité: Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- Toxicité pour la reproduction: Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- Toxicité spécifique pour certains organes cibles - exposition unique: Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- Toxicité spécifique pour certains organes cibles - exposition répétée: Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- Danger par aspiration: Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

RUBRIQUE 12: Informations écologiques

- 12.1 Toxicité: Pas d'autres informations importantes disponibles.
- Toxicité aquatique: Pas d'autres informations importantes disponibles.
- 12.2 Persistance et dégradabilité: Pas d'autres informations importantes disponibles.
- 12.3 Potentiel de bioaccumulation: Pas d'autres informations importantes disponibles.
- 12.4 Mobilité dans le sol: Pas d'autres informations importantes disponibles.
- Autres indications écologiques:
  - Indications générales: Aucune pollution des eaux connue.
  - 12.5 Résultats des évaluations PBT et VPVB:
    - PBT: Non applicable.
    - vPvB: Non applicable.
RUBRIQUE 13: Considérations relatives à l'élimination

13.1 Méthodes de traitement des déchets
Recommandation: Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.

13.2 Emballages non nettoyés:
Recommandation: Évacuation conformément aux prescriptions légales.

Produit de nettoyage recommandé: Eau, éventuellement avec des produits de nettoyage

RUBRIQUE 14: Informations relatives au transport

14.1 Numéro ONU
ADR, ADN, IMDG, IATA néant

14.2 Désignation officielle de transport de l'ONU
ADR, ADN, IMDG, IATA néant

14.3 Classe(s) de danger pour le transport
ADR, ADN, IMDG, IATA néant

14.4 Groupe d'emballage
ADR, IMDG, IATA néant

14.5 Dangers pour l'environnement: Non applicable.

14.6 Précautions particulières à prendre par l'utilisateur Non applicable.

14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC Non applicable.

"Règlement type" de l'ONU: néant

RUBRIQUE 15: Informations relatives à la réglementation

15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement

 Directive 2012/18/UE
Substances dangereuses désignées - ANNEXE I Aucun des composants n’est compris.

15.2 Évaluation de la sécurité chimique: Une évaluation de la sécurité chimique n’a pas été réalisée.

RUBRIQUE 16: Autres informations

Ces indications sont fondées sur l’état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

Acronymes et abréviations:
ADR: Accord européen sur le transport des marchandises dangereuses par Route
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
Nom du produit: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

· 1.1 Produktidentifikator
· Handelsname: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS
· Artikelnummer: 26684-01
· 1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird
   Keine weiteren relevanten Informationen verfügbar.
· Verwendung des Stoffes / des Gemisches: Laborchemikalien

· 1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt
· Hersteller/Lieferant:
  Electron Microscopy Sciences
  1560 Industry Road
  USA-Hatfield, PA 19440
  Tel: 215-412-8400  Fax: 215-412-8450
  email: sgkcck@aol.com
  www.emsdiasum.com
  Science Services GmbH
  Unterhachinger Str. 75
  81737 München Germany
  Tel: +49(0)89 18 93 668-0
  safety@scienceservices.de

24h Giftnotruf Munchen: +49 (0)89 19240
Toxikologische Abteilung der II. Medizinischen Klinik
rechts der Isar, Munchen. - www.toxinfo.org

· Auskunftgebender Bereich: Product safety department
· 1.4 Notrufnummer:
  ChemTrec 1-800-424-9300 Contract CCN7661
  1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

· 2.1 Einstufung des Stoffs oder Gemischs
· Einstufung gemäß Verordnung (EG) Nr. 1272/2008

⚠️ GHS07

Acute Tox. 4  H312  Gesundheitsschädlich bei Hautkontakt.
Skin Irrit. 2  H315  Verursacht Hautreizungen.

· 2.2 Kennzeichnungselemente
· Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008
   Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.
· Gefahrenpiktogramme

⚠️ GHS07

· Signalwort Achtung

(Fortsetzung auf Seite 2)
Handelsname: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

- Gefahrenhinweise
  H312 Gesundheitsschädlich bei Hautkontakt.
  H315 Verursacht Hautreizungen.

- Sicherheitshinweise
  P280 Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen.
  P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).
  P312 Bei Unwohlsein GIFTINFORMATIONSZENTRUM/Arzt anrufen.
  P332+P313 Bei Hautreizung: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
  P403+P235 An einem gut belüfteten Ort aufbewahren. Kühlenhalten.

2.3 Sonstige Gefahren
- Ergebnisse der PBT- und vPvB-Beurteilung
  - PBT: Nicht anwendbar.
  - vPvB: Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen
- 3.2 Chemische Charakterisierung: Gemische
  - Beschreibung: Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.
  - Gefährliche Inhaltsstoffe: entfällt
  - Zusätzliche Hinweise: Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

ABSCHNITT 4: Erste-Hilfe-Maßnahmen
- 4.1 Beschreibung der Erste-Hilfe-Maßnahmen
  - Allgemeine Hinweise:
    Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.
  - Nach Einatmen: Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.
  - Nach Hautkontakt: Sofort mit Wasser und Seife abwaschen und gut nachspülen.
  - Nach Verschlucken: Bei anhaltenden Beschwerden Arzt konsulteren.

4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen
Keine weiteren relevanten Informationen verfügbar.

4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung
Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung
- 5.1 Löschmittel
  - Geeignete Löschmittel:

5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren
Keine weiteren relevanten Informationen verfügbar.

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**Handelsname:** FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

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**5.3 Hinweise für die Brandbekämpfung**

- Besondere Schutzausrüstung: Keine besonderen Maßnahmen erforderlich.

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**ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung**

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**
  Nicht erforderlich.
- **6.2 Umweltschutzmaßnahmen**: Mit viel Wasser verdünnen.
- **6.3 Methoden und Material für Rückhaltung und Reinigung**:
- **6.4 Verweis auf andere Abschnitte**
  Informationen zur sicheren Handhabung siehe Abschnitt 7.
  Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.
  Informationen zur Entsorgung siehe Abschnitt 13.

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**ABSCHNITT 7: Handhabung und Lagerung**

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**
  Für gute Belüftung/Absaugung am Arbeitsplatz sorgen. Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz**: Keine besonderen Maßnahmen erforderlich.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
  - Lagerung:
  - Anforderung an Lagerräume und Behälter: Keine besonderen Anforderungen.
  - Zusammenlagerungshinweise: Nicht erforderlich.
  - Weitere Angaben zu den Lagerbedingungen: Behälter dicht geschlossen halten.
  - Lagerklasse:
  - Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV): -
- **7.3 Spezifische Endanwendungen**
  Keine weiteren relevanten Informationen verfügbar.

---

**ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen**

- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen**: Keine weiteren Angaben, siehe Abschnitt 7.
- **8.1 Zu überwachende Parameter**
- **Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten**:
  - Das Produkt enthält keine relevanten Mengen von Stoffen mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten.
- **Zusätzliche Hinweise**: Als Grundlage dienten die bei der Erstellung gültigen Listen.
- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung**:
  - Allgemeine Schutz- und Hygienemaßnahmen:
    - Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.
    - Beschmutzte, getränkte Kleidung sofort ausziehen.
    - Vor den Pausen und bei Arbeitsende Hände waschen.
    - Berührung mit den Augen und der Haut vermeiden.

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- **Atemschutz:**
  Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät verwenden.
- **Handschutz:**
- **Handschuhmaterial**
  Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialen nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.
- **Durchdringungszeit des Handschuhmaterials**
  Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.
- **Augenschutz:**
  Dichtschließende Schutzbrille

**ABSCHNITT 9: Physikalische und chemische Eigenschaften**

- **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**
- **Allgemeine Angaben**
  - **Aussehen:**
    - **Form:** Flüssigkeit
    - **Farbe:** Bernsteinfarben
  - **Geruch:** Charakteristisch
  - **Geruchsschwelle:** Nicht bestimmt.
  - **pH-Wert:** Nicht bestimmt.
- **Zustandsänderung**
  - **Schmelzpunkt/Schmelzbereich:** Nicht bestimmt.
  - **Siedepunkt/Siedebereich:** Nicht bestimmt.
- **Flammpunkt:** Nicht anwendbar.
- **Entzündlichkeit (fest, gasförmig):** Nicht anwendbar.
- **Zündtemperatur:**
  - **Zersetzungstemperatur:** Nicht bestimmt.
- **Selbstentzündlichkeit:** Das Produkt ist nicht selbstentzündlich.
- **Explosionsgefahr:** Das Produkt ist nicht explosionsgefährlich.
- **Explosionsgrenzen:**
  - **Untere:** Nicht bestimmt.
<table>
<thead>
<tr>
<th>Obere:</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Dampfdruck: icht bestimmt.</td>
</tr>
<tr>
<td>· Dichte: icht bestimmt.</td>
</tr>
<tr>
<td>· Relative Dichte: icht bestimmt.</td>
</tr>
<tr>
<td>· Dampfdichte: icht bestimmt.</td>
</tr>
<tr>
<td>· Verdampfungsgeschwindigkeit: icht bestimmt.</td>
</tr>
<tr>
<td>· Löslichkeit in / Mischbarkeit mit Wasser:</td>
</tr>
<tr>
<td>Vollständig mischbar.</td>
</tr>
<tr>
<td>· Verteilungskoeffizient (n-Octanol/Wasser): icht bestimmt.</td>
</tr>
<tr>
<td>· Viskosität:</td>
</tr>
<tr>
<td>Dynamisch: icht bestimmt.</td>
</tr>
<tr>
<td>Kinematisch: icht bestimmt.</td>
</tr>
<tr>
<td>· Lösemittelgehalt:</td>
</tr>
<tr>
<td>Organische Lösemittel: 0.0 %</td>
</tr>
<tr>
<td>Wasser: 97.5 %</td>
</tr>
<tr>
<td>VOC (EU): 0.00 %</td>
</tr>
<tr>
<td>· 9.2 Sonstige Angaben: Keine weiteren relevanten Informationen verfügbar.</td>
</tr>
</tbody>
</table>

**ABSCHNITT 10: Stabilität und Reaktivität**

- 10.1 Reaktivität Keine weiteren relevanten Informationen verfügbar.
- 10.2 Chemische Stabilität
  - Thermische Zersetzung / zu vermeidende Bedingungen: Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- 10.3 Möglichkeit gefährlicher Reaktionen Keine gefährlichen Reaktionen bekannt.
- 10.4 Zu vermeidende Bedingungen Keine weiteren relevanten Informationen verfügbar.
- 10.5 Unverträgliche Materialien: Keine weiteren relevanten Informationen verfügbar.
- 10.6 Gefährliche Zersetzungsprodukte: Keine gefährlichen Zersetzungsprodukte bekannt.

**ABSCHNITT 11: Toxikologische Angaben**

- 11.1 Angaben zu toxikologischen Wirkungen
  - Akute Toxizität
    Gesundheitsschädlich bei Hautkontakt.
  - Primäre Reizwirkung:
    - Ätz-/Reizwirkung auf die Haut
      Verursacht Hautreizungen.
  - Schwere Augenschädigung/-reizung
    Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
  - Sensibilisierung der Atemwege/Haut
    Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
  - CMR-Wirkungen (kreuserzeugende, ergbverändernde und fortpflanzungsgefährdende Wirkung)
  - Keimzell-Mutagenität
    Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
  - Karzinogenität
    Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
  - Reproduktionstoxizität
    Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
  - Spezifische Zielorgan-Toxizität bei einmaliger Exposition
    Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
  - Spezifische Zielorgan-Toxizität bei wiederholter Exposition
    Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
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· Aspirationsgefahr: Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

ABSCHNITT 12: Umweltbezogene Angaben

· 12.1 Toxizität
- Aquatische Toxizität: Keine weiteren relevanten Informationen verfügbar.
· 12.2 Persistenz und Abbaubarkeit: Keine weiteren relevanten Informationen verfügbar.
· 12.3 Bioakkumulationspotenzial: Keine weiteren relevanten Informationen verfügbar.
· 12.4 Mobilität im Boden: Keine weiteren relevanten Informationen verfügbar.
· Weitere ökologische Hinweise:
- Allgemeine Hinweise: Keine Wassergefährdung bekannt.
- Ergebnisse der PBT- und vPvB-Beurteilung
  - PBT: Nicht anwendbar.
  - vPvB: Nicht anwendbar.
· 12.6 Andere schädliche Wirkungen: Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 13: Hinweise zur Entsorgung

· 13.1 Verfahren der Abfallbehandlung
- Ungereinigte Verpackungen:
  - Empfehlung: Entsorgung gemäß den behördlichen Vorschriften.

ABSCHNITT 14: Angaben zum Transport

· 14.1 UN-Nummer
- ADR, ADN, IMDG, IATA: entfällt
· 14.2 Ordnungsgemäße UN-Versandbezeichnung
- ADR, ADN, IMDG, IATA: entfällt
· 14.3 Transportgefahrenklassen
- ADR, ADN, IMDG, IATA: entfällt
· 14.4 Verpackungsgruppe
- ADR, IMDG, IATA: entfällt
· 14.5 Umweltgefahren:
- Nicht anwendbar.
· 14.6 Besondere Vorsichtsmaßnahmen für den Verwender
- Nicht anwendbar.
· 14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code
- Nicht anwendbar.
· UN "Model Regulation": entfällt
Sicherheitsdatenblatt
gemäß 1907/2006/EG, Artikel 31

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ABSCHNITT 15: Rechtsvorschriften

· 15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch
  · Richtlinie 2012/18/EU
  · Namentlich aufgeführte gefährliche Stoffe - ANHANG I Keiner der Inhaltsstoffe ist enthalten.
  · 15.2 Stoffsicherheitsbeurteilung: Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

· Abkürzungen und Akronyme:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Acute Tox. 4: Acute toxicity, Hazard Category 4
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

· 1.1 Identificatore del prodotto
  · Denominazione commerciale: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS
  · Articolo numero: 26684-01
· 1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati
  Non sono disponibili altre informazioni.
· 1.3 Informazioni sul fornitore della scheda di dati di sicurezza
  · Produttore/fornitore:
    Electron Microscopy Sciences
    1560 Industry Road
    USA-Hatfield, PA 19440
    Tel: 215-412-8400  Fax: 215-412-8450
    email: sgkck@aol.com
    www.emsdiasum.com

Societa Italiana Chimici
Via Rio Nell Ellba 140
00138 Rome, Italy
Tel: 39 06 8800211
Fax: 39 30 06 8815313
Web: www.sichim.com

· Informazioni fornite da: Product safety department
· 1.4 Numero telefonico di emergenza:
  ChemTrec 1-800-424-9300 Contract CCN7661
  1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

· 2.1 Classificazione della sostanza o della miscela
  · Classificazione secondo il regolamento (CE) n. 1272/2008

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  Acute Tox. 4  H312  Nocivo per contatto con la pelle.
  Skin Irrit. 2  H315  Provoca irritazione cutanea.

· 2.2 Elementi dell'etichetta
  · Etichettatura secondo il regolamento (CE) n. 1272/2008
    Il prodotto è classificato ed etichettato conformemente al regolamento CLP.
  · Pittogrammi di pericolo

  GHS07

· Avvertenza  Attenzione
· Indicazioni di pericolo
  H312 Nocivo per contatto con la pelle.
  H315 Provoca irritazione cutanea.
· Consigli di prudenza
  P280  Indossare guanti/indumenti protettivi/Proteggere gli occhi/il viso.
  P321  Trattamento specifico (vedere su questa etichetta).

(continua a pagina 2)
Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31


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SEZIONE 3: Composizione/informazioni sugli ingredienti

- 3.2 Caratteristiche chimiche: Miscele
  - Descrizione: Miscela delle seguenti sostanze con additivi non pericolosi.
  - Sostanze pericolose: non applicabile
  - Ulteriori indicazioni: Il testo dell’avvertenza dei pericoli citati può essere appreso dal capitolo 16

SEZIONE 4: Misure di primo soccorso

- 4.1 Descrizione delle misure di primo soccorso
  - Indicazioni generali:
    I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.
  - Inalazione: Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.
  - Contatto con la pelle: Lavare immediatamente con acqua e sapone sciaccuando accuratamente.
  - Contatto con gli occhi: Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte Se persiste il dolore consultare il medico.
  - Ingestione: Se il dolore persiste consultare il medico.
- 4.2 Principali sintomi ed effetti, sia acuti che ritardati: Non sono disponibili altre informazioni.
- 4.3 Indicazione dell’eventuale necessità di consultare immediatamente un medico e di trattamenti speciali: Non sono disponibili altre informazioni.

SEZIONE 5: Misure antincendio

- 5.1 Mezzi di estinzione
  - Mezzi di estinzione idonei: CO₂, polvere o acqua nebulizzata. Estinguere gli incendi di grosse dimensioni con acqua nebulizzata o con schiuma resistente all'alcool.
  - 5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela: Non sono disponibili altre informazioni.
  - 5.3 Raccomandazioni per gli addetti all'estinzione degli incendi
  - Mezzi protettivi specifici: Non sono richiesti provvedimenti particolari.

SEZIONE 6: Misure in caso di rilascio accidentale

- 6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza: Non necessario.
- 6.2 Precauzioni ambientali: Diluire abbondantemente con acqua.
- 6.3 Metodi e materiali per il contenimento e per la bonifica:
  Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).
  Smaltimento del materiale contaminato conformemente al punto 13.

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Provvedere ad una sufficiente areazione.

6.4 Riferimento ad altre sezioni
Per informazioni relative ad una manipolazione sicura, vedere capitolo 7.
Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.
Per informazioni relative allo smaltimento vedere Capitolo 13.

SEZIONE 7: Manipolazione e immagazzinamento

7.1 Precauzioni per la manipolazione sicura
Accurata ventilazione/aspirazione nei luoghi di lavoro.
Evitare la formazione di aerosol.

Indicazioni in caso di incendio ed esplosione: Non sono richiesti provvedimenti particolari.

7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità
Stoccaggio:
Requisiti dei magazzini e dei recipienti: Non sono richiesti requisiti particolari.
Indicazioni sullo stoccaggio misto: Non necessario.
Ulteriori indicazioni relative alle condizioni di immagazzinamento: Mantenere i recipienti ermeticamente chiusi.

7.3 Usi finali particolari Non sono disponibili altre informazioni.

SEZIONE 8: Controllo dell'esposizione/protezione individuale

Ulteriori indicazioni sulla struttura di impianti tecnici: Nessun dato ulteriore, vedere punto 7.

8.1 Parametri di控制
Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:
Il prodotto non contiene quantità rilevanti di sostanze i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro.

Ulteriori indicazioni: Le liste valide alla data di compilazione sono state usate come base.

8.2 Controlli dell'esposizione
Mezzi protettivi individuali:
Norme generali protettive e di igiene del lavoro:
Tenere lontano da cibo, bevande e foraggi.
Togliere immediatamente gli abiti contaminati.
Lavarsi le mani prima dell'intervallo o a lavoro terminato.
Evitare il contatto con gli occhi e la pelle.
Maschera protettiva:
Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.

Guanti protettivi:

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/la sostanza/la formulazione.
A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto/la formulazione/la miscela di sostanze chimiche.
Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.
· Materiale dei guanti
La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell’impiego
· Tempo di permeazione del materiale dei guanti
Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.
· Occhiali protettivi:

Occhiali protettivi a tenuta

SEZIONE 9: Proprietà fisiche e chimiche

· 9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali
· Indicazioni generali
· Aspetto:
  · Forma: Liquido
  · Colore: Ambra
· Odore:
  · Odore: Caratteristico
· Soglia olfattiva:
  · Soglia olfattiva: Non definito.
· valori di pH:
  · valori di pH: Non definito.
· Cambiamento di stato
  · Temperatura di fusione/ambito di fusione: Non definito.
  · Temperatura di ebollizione/ambito di ebollizione: Non definito.
· Punto di infiammabilità:
  · Punto di infiammabilità: Non applicabile.
· Infiammabilità (solido, gassoso):
  · Infiammabilità (solido, gassoso): Non applicabile.
· Temperatura di accensione:
  · Temperatura di decomposizione: Non definito.
· Autoaccensione:
  · Autoaccensione: Prodotto non autoinfiammabile.
· Pericolo di esplosione:
  · Pericolo di esplosione: Prodotto non esplosivo.
· Limiti di infiammabilità:
  · Inferiore: Non definito.
  · Superiore: Non definito.
· Tensione di vapore:
  · Tensione di vapore: Non definito.
· Densità:
  · Densità: Non definito.
· Densità relativa
  · Densità relativa: Non definito.
· Densità del vapore
  · Densità del vapore: Non definito.
· Velocità di evaporazione
  · Velocità di evaporazione: Non definito.
· Solubilità in/Miscibilità con acqua:
  · Solubilità in/Miscibilità con acqua: Completamente miscibile.
· Coefficiente di distribuzione (n-Octanol/acqua):
  · Coefficiente di distribuzione (n-Octanol/acqua): Non definito.
· Viscosità:
  · Dinamica: Non definito.

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Cinematica:
- Non definito.
- Tenore del solvente:
  - Solventi organici: 0.0 %
  - Acqua: 97.5 %
  - VOC (CE): 0.00 %
- 9.2 Altre informazioni
  Non sono disponibili altre informazioni.

SEZIONE 10: Stabilità e reattività
- 10.1 Reattività
  Non sono disponibili altre informazioni.
- 10.2 Stabilità chimica
- Decomposizione termica/condizioni da evitare: Il prodotto non si decompone se utilizzato secondo le norme.
- 10.3 Possibilità di reazioni pericolose
  Non sono note reazioni pericolose.
- 10.4 Condizioni da evitare
  Non sono disponibili altre informazioni.
- 10.5 Materiali incompatibili
  Non sono disponibili altre informazioni.
- 10.6 Prodotti di decomposizione pericolosi
  Non sono noti prodotti di decomposizione pericolosi.

SEZIONE 11: Informazioni tossicologiche
- 11.1 Informazioni sugli effetti tossicologici
  - Tossicità acuta
    Nocivo per contatto con la pelle.
  - Irritabilità primaria:
    - Corrosione/irritazione cutanea
      Provoca irritazione cutanea.
  - Lesioni oculari gravi/irritazioni oculari gravi
    Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
  - Sensibilizzazione respiratoria o cutanea
    Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
  - Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)
    - Mutagenicità delle cellule germinali
      Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
    - Cancerogenicità
      Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
    - Tossicità per la riproduzione
      Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
    - Tossicità specifica per organi bersaglio (STOT) - esposizione singola
      Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
    - Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta
      Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
    - Pericolo in caso di aspirazione
      Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

SEZIONE 12: Informazioni ecologiche
- 12.1 Tossicità
  - Tossicità acquatica: Non sono disponibili altre informazioni.
- 12.2 Persistenza e degradabilità: Non sono disponibili altre informazioni.
- 12.3 Potenziale di bioaccumulo: Non sono disponibili altre informazioni.
- 12.4 Mobilità nel suolo: Non sono disponibili altre informazioni.
- Ulteriori indicazioni in materia ambientale:
  - Ulteriori indicazioni:
    Non si conoscono dati di pericolosità per le acque.
Denominazione commerciale: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

(SEgue da pagina 5)

12.5 Risultati della valutazione PBT e vPvB
- PBT: Non applicabile.
- vPvB: Non applicabile.
12.6 Altri effetti avversi Non sono disponibili altre informazioni.

SEZIONE 13: Considerazioni sullo smaltimento

- 13.1 Metodi di trattamento dei rifiuti
- Consigli: Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- Imballaggi non puliti:
  - Consigli: Smaltimento in conformità con le disposizioni amministrative.
  - Detergente consigliato: Acqua eventualmente con l'aggiunta di detersivi.

SEZIONE 14: Informazioni sul trasporto

- 14.1 Numero ONU
  - ADR, ADN, IMDG, IATA non applicabile
- 14.2 Nome di spedizione dell'ONU
  - ADR, ADN, IMDG, IATA non applicabile
- 14.3 Classi di pericolo connesso al trasporto
  - ADR, ADN, IMDG, IATA non applicabile
- 14.4 Gruppo di imballaggio
  - ADR, IMDG, IATA non applicabile
- 14.5 Pericoli per l'ambiente: Non applicabile.
- 14.6 Precauzioni speciali per gli utilizzatori Non applicabile.
- 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC Non applicabile.
  - UN "Model Regulation": non applicabile

SEZIONE 15: Informazioni sulla regolamentazione

- 15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela
- Direttiva 2012/18/UE
- Sostanze pericolose specificate - ALLEGATO I Nessuno dei componenti è contenuto.
- 15.2 Valutazione della sicurezza chimica: Una valutazione della sicurezza chimica non è stata effettuata.

SEZIONE 16: Altre informazioni

I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.

- Abbreviazioni e acronimi:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
### Scheda di dati di sicurezza

*ai sensi del regolamento 1907/2006/CE, Articolo 31*

Stampato il: 14.01.2016  
Revisione: 14.01.2016

**Denominazione commerciale:** FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

<table>
<thead>
<tr>
<th>Acronimo</th>
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<tbody>
<tr>
<td>IMDG</td>
<td>International Maritime Code for Dangerous Goods</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonised System of Classification and Labelling of Chemicals</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (division of the American Chemical Society)</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds (USA, EU)</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>vPvB</td>
<td>very Persistent and very Bioaccumulative</td>
</tr>
<tr>
<td>Acute Tox. 4</td>
<td>Acute toxicity, Hazard Category 4</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion/irritation, Hazard Category 2</td>
</tr>
</tbody>
</table>
안전지침서
제31조의 1907/2006/EC에 따라

기압점: 2016.01.14
개정: 2016.01.14

1. 화학제품과 회사에 관한 정보

- 제품명: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS
- 상품번호: 26684-01
- 안전데이터표 (Safety Data Sheet) 내 공급업체 관련 상세 정보
  - 제조자/수입자/유통업자 정보:
    Electron Microscopy Sciences
    1560 Industry Road
    USA-Hatfield, PA 19440
    Tel: 215-412-8400  Fax: 215-412-8450
    email: sgkcck@aol.com
    www.emsdiasum.com
  - 추가적인 정보 획득 가능: Product safety department
  - 비상연락 전화번호:
    ChemTrec 1-800-424-9300 Contract CCN7661
    1-703-527-3887

2. 유해성 위험성

- 순물질 또는 혼합물의 분류

  ![경고]

  심한 눈 손상/자극성 구분 H319 눈에 심한 자극을 일으킴

  - 라벨표기 요소
  - GHS 라벨 요소
    본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
  - 그림문자
    GHS07

  - 신호어 경고
  - 유해/위험 문구
    눈에 심한 자극을 일으킴
  - 예방조치 문구
    (보호장갑: 보호의 보안경: 안면보호구)를(을) 착용하시오.
    취급 후에는 취급 부위를 철저히 씻으십시오.
    눈에 묻으면 몇 분간 물로 조심해서 씻으십시오. 가능하면콘텍트렌즈를 제거하시오. 계속 씻으십시오.
    눈에 자극이 지속되면 의학적인 조치 조언을 구하시오.
    환기가 잘 되는 곳에 보관하고 저장으로 유지하시오
    현지/지역/국가/국제 규정에 따라서 내용물/증기 노출
제품명: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

3 구성성분의 명칭 및 함유량

- 화학적 특성: 혼합물
- 설명: 무한한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.
- 위험 요소: 누락된다

4 응급조치 요령

- 응급조치요령 내용
  - 일반적 정보:
    중독증상은 몇 시 간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48시간동안 의료진의 관찰을 받 아야 한다.
    흡입했을 때: 환자가 의식을 잃었을 경우에는 안전한 장소에서 환자를 운반한다.
    피부에 접촉했을 때: 즉시 물과 비슷한 물로 씻어내고야 한다. 중상이 지속될 경우에는 의사와 상담한다.
  - 기타 의사의 주의사항:
    - 가장 중요한 급-만성 증상 및 영향: 추가적인 정보가 존재하지 않습니다.
    - 특별한 응급처치 및 특별조치가 필요함을 시사하는 경우: 추가적인 정보가 존재하지 않습니다.

5 폭발, 화재시 대처방법

- 소화제
  - 적절한 소화제:
    이산 화학 소, 전화, 화학재료가 주 또는 물방울을 사용하고, 다이아몬드는 물을 분사하거나 알코올
    이 함유된 가루로 한다.
  - 불화학물질이나 혼합물에서 발생하는 특별 유해성 추가적인 정보가 존재하지 않습니다.
  - 소방관에 대한 권고사항:
    화재 진압 시 억제할 보호구 및 예방조치: 특별한 조치가 필요없음.

6 누출 사고 시 대처방법

- 개인적 예방조치, 보호장비 및 응급처치 절차 필요없음.
- 환경 관련 예방조치: 먼 음료 물로 회색 시킨다.
- 밀폐 및 정화 방법과 소재:
  - 액체가 혼합된 물질 (요추, 규조, 산성 결합물, 일반 결합물, 톱밥)에 혼합되도록 한다.
  - 안전한 환경에서 되도록 한다.
- 화학적 안전
  - 안전관리에 대한 정보는 제7장을 참조하시오.
  - 개인 보호 장비에 대한 정보는제8장을 참조하시오.
  - 쓰레기 처리에 대한 정보는 제13장을 참조하시오.
7 취급 및 저장방법

취급:
- 안전 취급을 위한 예방조치
  작업장에서는 통풍이 잘되고, 습기의 조절이 가능한 장소에 보관한다.

예방대책에 대해:
- 추가적인

보관:
- 안전한 저장 방법: 특별한 요구사항이 없음.
- 보관 조건에 관한 추가적인 정보: 용기의 세척 및 개폐를 위한 준비를 취한다.

8 노출방지 및 개인보호구

노출방지:
- 철단시설 디자인에 대한 추가정보: 더 이상의 자료는 없음.  항목 7 을 참고하시오.

통제 변수
- 화학물질의 노출기준, 생물학적 노출기준 등:
  본 제품에는 작업장에서 감시가 필요한 주요한 자가의 어떤 해당 재료의 양을 함유하고 있지 않다.

보관 정보: 재조합 당일에 유효한 목록을 기초로 사용한다.

노출 통제
- 개인 보호구
- 일반적보호조치 및 위생조치:
  식료품, 음료수와 사료로부터 멀리 떨어져 놓는다.
  더러워질 때나 음료수가 묻은 곳은 신중하게 신경을 써야 한다.
  흑거는 이나 작업이 끝나면 펑크를 씻는다.
  눈과 피부와의 접촉은 피한다.

호흡기 보호:
- 단시간 또는 정파한 오염의 경우에는 호흡과 기름을 사용 한다. 심각한 또는 장기적으로 노출시에는 호흡 보호 장비를 사용한다.

손 보호:

보호용 장갑

장갑재질은 제품 / 원료 / 조제를 통과시키지 않아야하고, 내구성이 있어야한다.
적합한 장갑의 선정은 재료의 특성에 의해 결정되어야 하고제조업체의 조정에 따라야 한다.
장갑재질의 선정은 제품의 특성에 따라야 한다. 제품은 다양한 재료로부터의 재료로 이루어지는 것이기 때문에, 장갑재질의 안전성은 사용 전에 충분히 고려해야 한다.
장갑 재료의 투과성은 투과 시간에 보호장갑 재료에 의하여 일정하지 않고, 준수되어야한다.
제품명: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

9 물리화학적 특성

<table>
<thead>
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<tr>
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<td>녹는점/동결점</td>
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<td>맞지않는</td>
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<td>부화점</td>
<td>해당사항 없음</td>
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<td>VOC (EU)</td>
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</tbody>
</table>
제품명: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

10 안정성 및 반응성

- 반응성: 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성: 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성 및 유해 반응의 가능성: 규정에따라사용할경우해체는없다
- 유해반응 가능성: 위험한 반응은알려지지 않았다.
- 피해야 할 조건: 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지 않았다.

11 독성에 관한 정보

- 독성학적 영향에 대한 정보: 추가적인 정보가 존재하지 않습니다.
- 급성 독성: 추가적인 정보가 존재하지 않습니다.
- 피부 자극: 추가적인 정보가 존재하지 않습니다.
- 유해 반응 가능성: 추가적인 정보가 존재하지 않습니다.
- 피해야 할 조건: 추가적인 정보가 존재하지 않습니다.
- 환경에 미치는 영향: 추가적인 정보가 존재하지 않습니다.
- 비위생적 포장: 추가적인 정보가 존재하지 않습니다.

12 환경에 미치는 영향

- 특성: 추가적인 정보가 존재하지 않습니다.
- 지속성 및 분해성: 추가적인 정보가 존재하지 않습니다.
- 환경 시스템에서의 행동: 추가적인 정보가 존재하지 않습니다.
- 생물농축 잠재성: 추가적인 정보가 존재하지 않습니다.
- 토양내 이동성: 추가적인 정보가 존재하지 않습니다.
- 추가적인 생태학 정보: 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

- 폐기물 처리 방법: 추가적인 정보가 존재하지 않습니다.
- 비위생적 포장: 추가적인 정보가 존재하지 않습니다.
제품명: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

31조의 1907/2006/EC에 따라

기압점: 2016.01.14
개정: 2016.01.14

주 천 세정재: 경우에 따라 서세계가침가됨(5쪽부터계속)

14 운송에 필요한 정보

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15 법적 규제현황

해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률

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<td>Korean Existing Chemical Inventory</td>
<td>7732-18-5 water, distilled, conductivity or of similar purity</td>
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\[KE-35400\]

GHS 라벨 요소
본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

그림문자

신호어 경고

유해.위험 문구
눈에 심한 자극을 일으킴

예방조치 문구
(보호장갑: 보호기의 보안경: 안면보호구)를(을) 착용하시오.
취급 후에는 취급 부위를 철저히 씻으십시오.
눈에 묻으면 몇 분간 물로 씻어주십시오. 가능하면콘택트렌즈를 제거하시고, 계속 씻으십시오.
눈에 자극이 지속되면 의학적인 조치 조언을 구하시오.
환기가 잘되는 곳에 보관하고 저온으로 유지하시오.
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

(7쪽계속)
제품명: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

화학물질 안전성 평가: 화학물질 안전성 평가가 수행되지 않았음

16 그 밖의 참고사항
이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은
비유하지않았으며계약적인법률관계에기반을두고있지도않다.

최초 작성일자: 2016.01.14
개정 횟수 및 최종 개정일자: 1 / 2016.01.14
약어와 두문자어:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
심한 눈 손상/자극성 구분2: Serious eye damage/eye irritation, Hazard Category 2
SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

· 1.1 Identificador del producto
· Nombre comercial: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS
· Número del artículo: 26684-01
· 1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados
No existen más datos relevantes disponibles.
· Utilización del producto / de la elaboración Sustancias químicas de laboratorio
· 1.3 Datos del proveedor de la ficha de datos de seguridad
· Fabricante/distribuidor:
  Electron Microscopy Sciences
  1560 Industry Road
  USA-Hatfield, PA 19440
  Tel: 215-412-8400  Fax: 215-412-8450
  email: sgkcek@aol.com
  www.emsdiasum.com
  Aname
  C/ Perez Galdos no. 2
  28693 Quijorna
  Madrid, Spain
  Tel: +34.91.816.89.50
  Fax: +34.91.816.85.94
  email: ventas@aname.es
· Área de información: Product safety department
· 1.4 Teléfono de emergencia:
  ChemTrec 1-800-424-9300 Contract CCN7661
  1-703-527-3887

SECCIÓN 2: Identificación de los peligros

· 2.1 Clasificación de la sustancia o de la mezcla
· Clasificación con arreglo al Reglamento (CE) n° 1272/2008

GHS07

Acute Tox. 4  H312  Nocivo en contacto con la piel.
Skin Irrit. 2  H315  Provoca irritación cutánea.

· 2.2 Elementos de la etiqueta
· Etiquetado con arreglo al Reglamento (CE) n° 1272/2008
El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.
· Pictogramas de peligro

GHS07

· Palabra de advertencia Atención
· Indicaciones de peligro
  H312 Nocivo en contacto con la piel.
  H315 Provoca irritación cutánea.
· Consejos de prudencia
  P280  Llevar guantes/prendas/gafas/máscara de protección.
**Nombre comercial:** FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

- **P321** Se necesita un tratamiento específico (ver en esta etiqueta).
- **P312** Llamar a un CENTRO DE TOXICOLOGÍA/médico si la persona se encuentra mal.
- **P332+P313** En caso de irritación cutánea: Consultar a un médico.
- **P403+P235** Almacenar en un lugar bien ventilado. Mantener en lugar fresco.
- **P501** Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

- **2.3 Otros peligros**
  - Resultados de la valoración PBT y mPmB
    - **PBT:** No aplicable.
    - **mPmB:** No aplicable.

**SECCIÓN 3: Composición/información sobre los componentes**

- **3.2 Caracterización química: Mezclas**
  - **Descripción:** Mezcla formada por las substancias especificadas a continuación con adiciones no peligrosas.
  - **Componentes peligrosos:** suprimido
  - **Indicaciones adicionales:** El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

**SECCIÓN 4: Primeros auxilios**

- **4.1 Descripción de los primeros auxilios**
  - **Instrucciones generales:** Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.
  - **En caso de inhalación del producto:** Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.
  - **En caso de contacto con la piel:** Lavar inmediatamente con agua y jabón y enjuagar bien.
  - **En caso de con los ojos:** Limpiar los ojos abiertos durante varios minutos con agua corriente. En caso de trastornos persistentes consultar un médico.
  - **En caso de ingestión:** Consultar un médico si los trastornos persisten.
- **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.
- **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente** No existen más datos relevantes disponibles.

**SECCIÓN 5: Medidas de lucha contra incendios**

- **5.1 Medios de extinción**
  - **Sustancias extintoras apropiadas:** CO2, polvo extintor o chorro de agua rociada. Combatir incendios mayores con chorro de agua rociada o espuma resistente al alcohol.
- **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **5.3 Recomendaciones para el personal de lucha contra incendios**
  - **Equipo especial de protección:** No se requieren medidas especiales.

**SECCIÓN 6: Medidas en caso de vertido accidental**

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia** No es necesario.
- **6.2 Precauciones relativas al medio ambiente:** Diluir con mucha agua.
Nombre comercial: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

- **6.3 Métodos y material de contención y de limpieza:**
  Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).
  Desechar el material contaminado como vertido según item 13.
  Asegurar suficiente ventilación.

- **6.4 Referencia a otras secciones**
  Ver capítulo 7 para mayor información sobre una manipulación segura.
  Ver capítulo 8 para mayor información sobre el equipo personal de protección.
  Para mayor información sobre cómo desechar el producto, ver capítulo 13.

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**SECCIÓN 7: Manipulación y almacenamiento**

- **7.1 Precauciones para una manipulación segura**
  Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
  Evitar la formación de aerosoles.

- **Prevención de incendios y explosiones:** No se requieren medidas especiales.

- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
  **Almacenamiento:**
  **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
  **Normas en caso de un almacenamiento conjunto:** No es necesario.
  **Indicaciones adicionales sobre las condiciones de almacenamiento:**
  Mantener el recipiente cerrado herméticamente.

- **7.3 Usos específicos finales**
  No existen más datos relevantes disponibles.

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**SECCIÓN 8: Controles de exposición/protección individual**

- **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**
  Sin datos adicionales, ver punto 7.

- **8.1 Parámetros de control**
  **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:**
  El producto no contiene cantidades relevantes de substancias con valores límite que exijan un control en el puesto de trabajo.

- **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.

- **8.2 Controles de la exposición**
  **Equipo de protección individual:**
  **Medidas generales de protección e higiene:**
  Mantener alejado de alimentos, bebidas y alimentos para animales.
  Quitarse de inmediato la ropa ensuciada o impregnada.
  Lavarse las manos antes de las pausas y al final del trabajo.
  Evitar el contacto con los ojos y la piel.

  **Protección respiratoria:**
  Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.

  **Protección de manos:**

  *Guantes de protección*

  El material del guante deberá ser impermeable y resistente al producto / substancia / preparado.
  Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de substancias químicas.
Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

**Material de los guantes**
La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

**Tiempo de penetración del material de los guantes**
El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

**Protección de ojos:**

![Gafas de protección herméticas](image)

### SECCIÓN 9: Propiedades físicas y químicas

**9.1 Información sobre propiedades físicas y químicas básicas**

#### Datos generales

- **Aspecto:**
  - Forma: Líquido
  - Color: Ámbar coloreado
  - Olor: Característico
  - Umbral olfativo: No determinado.

- **valor pH:** No determinado.

- **Cambio de estado**
  - Punto de fusión /campo de fusión: Indeterminado.
  - Punto de ebullición /campo de ebullición: Indeterminado.

- **Punto de inflamación:** No aplicable.

- **Inflamabilidad (sólido, gaseiforme):** No aplicable.

- **Temperatura de ignición:**
  - Temperatura de descomposición: No determinado.

- **Autoinflamabilidad:** El producto no es autoinflamable.

- **Peligro de explosión:** El producto no es explosivo.

- **Límites de explosión:**
  - Inferior: No determinado.
  - Superior: No determinado.

- **Presión de vapor:** No determinado.

- **Densidad:** Indeterminado.
- **Densidad relativa**
- **Densidad de vapor**
- **Velocidad de evaporación**

- **Solubilidad en / miscibilidad con agua:** Completamente mezclable.

- **Coeficiente de reparto (n-octanol/agua):** No determinado.
SECCIÓN 10: Estabilidad y reactividad

- 10.1 Reactividad No existen más datos relevantes disponibles.
- 10.2 Estabilidad química
- 10.3 Posibilidad de descomposición / condiciones que deben evitarse: No se descompone al emplearse adecuadamente.
- 10.4 Condiciones que deben evitarse No existen más datos relevantes disponibles.
- 10.5 Materiales incompatibles: No existen más datos relevantes disponibles.
- 10.6 Productos de descomposición peligrosos: No se conocen productos de descomposición peligrosos.

SECCIÓN 11: Información toxicológica

- 11.1 Información sobre los efectos toxicológicos
  - Toxicidad aguda
    Nocivo en contacto con la piel.
  - Efecto estimulante primario:
  - Corrosión o irritación cutáneas
    Provoca irritación cutánea.
  - Lesiones o irritación ocular graves
    A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Sensibilización respiratoria o cutánea
    A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)
  - Mutagenicidad en células germinales
    A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Carcinogenicidad
    A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Toxicidad para la reproducción
    A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Toxicidad específica en determinados órganos (STOT) – exposición única
    A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Toxicidad específica en determinados órganos (STOT) – exposición repetida
    A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
  - Peligro de aspiración
    A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

SECCIÓN 12: Información ecológica

- 12.1 Toxicidad
  - Toxicidad acuática: No existen más datos relevantes disponibles.
  - 12.2 Persistencia y degradabilidad No existen más datos relevantes disponibles.
  - 12.3 Potencial de bioacumulación No existen más datos relevantes disponibles.
  - 12.4 Movilidad en el suelo No existen más datos relevantes disponibles.
Nombre comercial: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

- Indicaciones medioambientales adicionales:
- Indicaciones generales: No se tiene conocimiento de que represente un peligro para el agua.
- 12.5 Resultados de la valoración PBT y mPmB
  - PBT: No aplicable.
  - mPmB: No aplicable.
- 12.6 Otros efectos adversos No existen más datos relevantes disponibles.

SECCIÓN 13: Consideraciones relativas a la eliminación

- 13.1 Métodos para el tratamiento de residuos
  - Recomendación: No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- Embalajes sin limpiar:
  - Recomendación: Eliminar conforme a las disposiciones oficiales.
  - Producto de limpieza recomendado: Agua, eventualmente añadiendo productos de limpieza.

SECCIÓN 14: Información relativa al transporte

- 14.1 Número ONU
  - suprimido
- 14.2 Designación oficial de transporte de las Naciones Unidas
  - suprimido
- 14.3 Clase(s) de peligro para el transporte
  - suprimido
- 14.4 Grupo de embalaje
  - suprimido
- 14.5 Peligros para el medio ambiente: No aplicable.
- 14.6 Precauciones particulares para los usuarios No aplicable.
- 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC No aplicable.
  - "Reglamentación Modelo" de la UNECE: suprimido

SECCIÓN 15: Información reglamentaria

- 15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla
- Directiva 2012/18/UE
- Sustancias peligrosas nominadas - ANEXO I ninguno de los componentes está incluido en una lista
- 15.2 Evaluación de la seguridad química: Una evaluación de la seguridad química no se ha llevado a cabo.

SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.
Nombre comercial: FERRIC AMMONIUM SULFATE, 2.5% AQUEOUS

- Abreviaturas y acrónimos:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - VOC: Volatile Organic Compounds (USA, EU)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Acute Tox. 4: Acute toxicity, Hazard Category 4
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2