Material Safety Data Sheet

1. Product Identification
Product Name: Chloride Kit (Thiocyanate method)
Catalog Number: CLR 010 / CLR 011

2. Composition / Information on Hazardous Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>% W/V</th>
<th>Exposure Limits in Air</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>TLV STEL PEL STEL</td>
<td></td>
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</tr>
<tr>
<td>Reagent 1:</td>
<td>Chloride Reagent</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ferric Nitrate</td>
<td>7782-61-8</td>
<td>1%</td>
<td>1mg/m³</td>
<td>N/A</td>
<td>2mg/m³</td>
<td>N/A</td>
</tr>
<tr>
<td>Reagent 2:</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reagent 3:</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reagent 4:</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Reagent 5:</td>
<td>N/A</td>
<td></td>
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</tr>
</tbody>
</table>

3. Hazard Identification
Primary Routes of Entry:
Inhalation, ingestion, skin and / or eye contact.

Inhalation:
Inhalation of Vapours, mists, or sprays of these components may irritate the nose, throat, and lungs. Symptoms are generally alleviated upon breathing fresh air.

Ingestion:
Though not a likely route of occupational exposure, ingestion of this product, especially in large quantities, May cause gastric distress.

Skin Contact:
If the liquid or Vapours of this product come in contact with the skin, mild irritation may develop.
Eye Contact:
If the liquid or Vapours of this product come in contact with the eyes, mild irritation may develop.

Chronic Exposure:
N/A

Medical Conditions Aggravated by Exposure:
N/A

Health Effects:
Adverse health effects are not expected from the recommended use of this product. Ferric Nitrate is 1% in this solution, it is considered an oxidizer when it is pure.

4. First Aid Measures

Inhalation:
If breathing becomes difficult, remove victim to fresh air. Seek medical attention immediately.

Ingestion:
If swallowed, do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact:
Avoid skin contact. If skin contact occurs, remove contaminated clothing and wash exposed skin with water for at least 15 minutes. Get medical attention immediately.

Eye Contact:
Immediately flush eye(s) with large volume of water for at least 15 minutes, occasionally lifting the lower lids. Get medical attention immediately.

5. Fire Fighting Measures

Flash Point (Method used): N/A Flammable Limits – LEL: N/A UEL: N/A

Extinguishing Media:
Use fire extinguishing media appropriate for site conditions.

Special Fire Procedures:
Structural firefighting gear and self-contained breathing apparatus will provide adequate protection if this product is in a fire area.

Unusual Fire and Explosion Hazards:
Ferric Nitrate: promotes fire once started and impedes fire fighting.

6. Accidental Release Measures

Steps to be taken in case material is Released or Spilled:
Use an absorbent material to contain / pick up the spilled solution. Place all spill residue into a suitable container, seal, label and hold for disposal.

7. Handling and Storage

Refer to packet insert for additional information on handling and storage procedures.

8. Exposure Controls and Personal Protection

Ventilation Data:
A system of local and / or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

Respiratory Protection:
Respiratory protection is not required under normal use of this product. If respiratory protection is needed, follow OSHA respirator regulations (29CFR1910.134) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide worker protection for given working conditions, level of airborne concentration, and presence of sufficient oxygen.
Protective Gloves:
Wear appropriate protective gloves to prevent skin contact.

Other Protective Equipment:
Wear appropriate eye protection to prevent eye contact. Wear appropriate body protection to prevent skin contact.

Other Engineering Controls:
Eye wash stations and deluge showers.

Work Practices:
Good laboratory technique should be used when handling this product. Observe appropriate chemical hygiene. Avoid contact with eyes or skin. Do not place in mouth.

Hygienic Practices:
Do not eat, drink, or smoke while working with product. Upon completion of work activities involving this product, wash hands thoroughly with soap and water.

9. Physical And Chemical Properties
For All Components Unless Otherwise Indicated

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Vapour Density (air = 1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity (water = 1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Vapour Pressure, mm Hg @ 20°C</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation rate (nBuAc = 1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Freezing / Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Odour and Appearance Information
Reagent 1: pH = 1.4, Pale yellow color liquid

Reagent 2: N/A

Reagent 3: N/A

Reagent 4: N/A

Reagent 5: N/A

Reagent 6: N/A

Reagent 7: N/A

10. Stability and Reactivity
Incompatibility (Materials to Avoid):
All flammable substances.

Hazardous Decomposition Products:
N/A

Will Hazardous Polymerization Occur?
Hazardous polymerization will not occur.

Conditions to Avoid / Polymerization: N/A

Is the Product Stable?
Yes, under normal handling and storage conditions.

Conditions to Avoid/stability
Stable Solution. Avoid excess heat, flame, or pressure.
11. Toxicological Information

Toxicity Data:
Ferric Nitrate: Oral rat LD50: 3250mg/kg.

Reproductive effects:
N/A.

Target organ Effects:
Eyes and Skin.

Carcinogenicity: No

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>% W/V</th>
<th>NTP Carcinogen</th>
<th>IARC</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
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</table>

12. Ecological Information

Environmental Fate / Stability:
N/A

Effect of Material on plants or animals:
N/A

Effect of Chemical on Aquatic Life:
N/A

13. Disposal Considerations

EPA Waste Number and Proper Waste Disposal Method:
Please consult local, state and federal regulations for additional guidance on disposal.

14. Transportation Information

Is this Material Hazardous? Not regulated under transportation regulations.

Proper Shipping Name : N/A
Hazard Class Number : N/A
Packing Group: N/A
UN Number: N/A

15. Regulatory Information

NA.

16. Other Information

NA => NOT APPLICABLE or NO INFORMATION