Material Safety Data Sheet

1. **Product Identification**
   
   **Product Name**: Elyte 3 Kit (NA⁺, K⁺ & Cl⁻ Colorimetric Method)
   
   **Catalog Number**: ELY 030

2. **Composition / Information on Hazardous Ingredients**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>% W/V</th>
<th>Exposition Limits in Air</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reagent 1: Precipitating Reagent</td>
<td>Ethanol</td>
<td>64-17-5</td>
<td>85</td>
<td>1000PPM</td>
<td>N/A</td>
<td>1000PPM</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: Potassium Reagent</td>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>10%</td>
<td>0.3 ppm</td>
<td>N/A</td>
<td>0.75ppm</td>
</tr>
<tr>
<td>Reagent 5:</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reagent 6: Chloride Reagent</td>
<td>Ferric Nitrate</td>
<td>7782-61-8</td>
<td>1%</td>
<td>1mg/m³</td>
<td>N/A</td>
<td>2mg/m³</td>
</tr>
<tr>
<td>Reagent 7:</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. **Hazard Identification**

   **Primary Routes of Entry:**
   Inhalation, ingestion, and 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. Symptoms may include vomiting and temporary loss of equilibrium.

Skin Contact:
Formaldehyde: can cause burns if it comes in contact with the skin.

Eye Contact:
If the liquid or Vapours come in contact with the eyes, Ethanol: mild irritation may develop; Formaldehyde: can cause burns and may damage eyes.

Chronic Exposure:
N/A

Medical Conditions Aggravated by Exposure:
Formaldehyde: persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of the substance.

Health Effects:
This product’s vapours or liquid can cause skin or eye damage, and irritate the respiratory tract. Health hazards given on this data sheet apply to concentrated solution of formaldehyde.

4. First Aid Measures

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

Ingestion:
Get medical attention if there has been ingestion of this product.

Skin Contact:
Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated cloths and shoes. 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 Fighting 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:
Ethanol: highly flammable and is likely to catch fire; Ferric Nitrate: promotes fire 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 residues 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

<table>
<thead>
<tr>
<th>For All Components Unless Otherwise Indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Vapour density (air = 1) : N/A</td>
</tr>
<tr>
<td>Specific Gravity (water = 1) : N/A</td>
</tr>
<tr>
<td>Solubility in Water : Soluble</td>
</tr>
<tr>
<td>Vapour Pressure, mm Hg @ 20°C : N/A</td>
</tr>
<tr>
<td>Evaporation rate( nBuAc = 1) : N/A</td>
</tr>
<tr>
<td>Freezing / Melting Point : N/A</td>
</tr>
<tr>
<td>Boiling Point : N/A</td>
</tr>
<tr>
<td>pH : N/A</td>
</tr>
</tbody>
</table>

Odour and Appearance Information

Reagent 1: Clear, Yellowish liquid
Reagent 2: N/A
Reagent 3: N/A
Reagent 4: Pale pinkish color liquid
Reagent 5: N/A.
Reagent 6: pH=1.4, Pale yellow color liquid
Reagent 7: N/A.
10. Stability and Reactivity

**Incompatibility (Materials to Avoid):**
Strong oxidizer. Keep away from all flammable substances.

**Hazardous Decomposition Products:**
N/A.

**Will Hazardous Polymerization Occur?**
N/A.

**Conditions to Avoid / Polymerization:** N/A.

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

**Conditions to Avoid/stability**
Stable Solution. Avoid from naked flame or sparks

11. Toxicological Information

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

**Reproductive effects:**
N/A.

**Target organ Effects:**
Eyes, skin, Central nervous systems, & cardiovascular systems.

**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>
<td></td>
<td></td>
<td>Known</td>
<td></td>
<td></td>
</tr>
</tbody>
</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