Technical Information Sheet
REV. 0 Issued: February 5, 2015

1. Chemical Product And Company Information

Chemical Name: Brine Mud (Calcium Carbonate / Magnesium Hydroxide)
Synonyms/Trade Names: Brine Mud
Chemical Family: n/a
Formula: mixture of CaCO$_3$ and MgOH
Molecular Weight: n/a
CAS No.: n/a
Uses: none, byproduct from brine purification

Manufacturer & Supplier:
ERCO Worldwide, a division of Superior Plus LP
302 The East Mall, Suite 200
Toronto, Ontario Canada M9B 6C7
(416) 239-7111

Transportation Emergency Telephone Numbers:
CANADA: (613) 996-6666
CANUTEC
USA: 1-800-424-9300
CHEMTREC

Canadian WHMIS Classification (s):
- C - Oxidizing
- D2B - Other Toxic Effects

2. Composition / Information On Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>Conc. % By Weight</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate</td>
<td>20 - 60</td>
<td>471-34-1</td>
</tr>
<tr>
<td>Sodium Chlorate</td>
<td>&lt; 1</td>
<td>7775-09-9</td>
</tr>
<tr>
<td>Sodium Chromate</td>
<td>&lt; 1</td>
<td>7775-11-3</td>
</tr>
<tr>
<td>Magnesium Hydroxide</td>
<td>4 - 12</td>
<td>1309-42-8</td>
</tr>
</tbody>
</table>
3. Hazard Identification

Emergency Overview :

Routes of Entry :

Symptoms of Exposure :

4. First Aid Measures

Skin :
Flush thoroughly with water for a minimum of 20 minutes.

Eyes :
Flush thoroughly with water for a minimum of 20 minutes.

Inhalation :

Ingestion :
Seek emergency medical attention immediately .

5. Fire-Fighting Measures

Conditions Of Flammability :
Not combustible

Means To Extinguish :
Appropriate for the surrounding fire

Hazardous Combustion Products :
Not combustible.

Flash Point & Method: Not combustible.
Upper Flammability Limit : Not combustible.
Lower Flammability Limit : Not combustible.
Auto-Ignition Temperature : Not combustible.
Mechanical Impact Sensitivity : Not available.
Static Discharge Sensitivity : Not available.

6. Accidental Release Measures

Leak Or Spill Procedures :
Contain and collect spilled material into clean, dry, covered metal containers, then flush down spill area with water. Keep spills and residues out of sewers and the external environment.

**Waste Control Procedures:**
Material is shipped to hazardous treatment facility for stabilization of leachable chromium and landfill disposal.

**7. Handling Storage**

**Handling Procedures And Equipment:**
No smoking, flames or sparks are allowed where waste is stored or used.

**Storage:**
Store in a cool, dry, fireproof area. Keep away from combustible or readily oxidizable materials and acids.

**8. Exposures Controls / Personal Protection**

**Protective Equipment:**
Wear rubber gloves, rubber boots, hard hat, dust mask and safety glasses or goggles when handling. If clothing becomes contaminated remove and wash immediately.

**Engineering Controls:**

**9. Physical And Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>Wet solid (mud)</td>
</tr>
<tr>
<td>Odour</td>
<td>none</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>n/a</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>n/a</td>
</tr>
<tr>
<td>Melting Point</td>
<td>&gt;800</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Water (moisture) contained in the mud can freeze below 0°C</td>
</tr>
<tr>
<td>pH</td>
<td>&gt;9</td>
</tr>
<tr>
<td>Coefficient Of Water/Oil Distribution</td>
<td>n/a</td>
</tr>
<tr>
<td>Appearance</td>
<td>light grey to beige mud</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>n/a</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>n/a</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>n/a</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>n/a</td>
</tr>
<tr>
<td>Solubility In Water</td>
<td>not soluble</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>not available</td>
</tr>
</tbody>
</table>

**10. Stability And Reactivity**

**Chemical Stability:**
Stable.

**Reactivity Conditions:**
Reaction with acids will occur on contact.

**Incompatible Substances:**
Reaction with acid releases carbon dioxide \( \text{CO}_2 \), and may release small quantities of chlorine \( \text{Cl}_2 \) and chlorine dioxide \( \text{ClO}_2 \). Avoid contact with organic materials, petroleum products, phosphorous, sulfur and powdered metals.

**Hazardous Decomposition Products:**
May release small quantities of chlorine.

### 11. Toxicological Information

<table>
<thead>
<tr>
<th>Skin Contact</th>
<th>Can cause irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Absorption</td>
<td>unknown</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>Can cause irritation</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Dust can cause irritation</td>
</tr>
<tr>
<td>Ingestion</td>
<td>unknown</td>
</tr>
<tr>
<td>( \text{LD}_{50} )</td>
<td>unknown</td>
</tr>
<tr>
<td>( \text{LC}_{50} )</td>
<td>unknown</td>
</tr>
<tr>
<td>Exposure Limits</td>
<td>not established</td>
</tr>
<tr>
<td>Irritancy</td>
<td>Can cause irritation</td>
</tr>
<tr>
<td>Sensitization</td>
<td>unknown</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>unknown</td>
</tr>
<tr>
<td>Teratogenicity &amp; Mutagenicity</td>
<td>unknown</td>
</tr>
<tr>
<td>Reproductive Toxicology</td>
<td>unknown</td>
</tr>
<tr>
<td>Toxicological Synergism</td>
<td>unknown</td>
</tr>
</tbody>
</table>

### 12. Ecological Information

**Ecological Information:**
Main components are benign (Calcium Carbonate, magnesium hydroxide). However some known impurities contained in the mud, particularly chromium(VI) compounds are toxic.

**Biodegradability:**
Not biodegradable

**Aquatic Toxicity:**
Chromium(VI) compounds and chlorate, which can leach out of the mud, are toxic to aquatic organisms.

### 13. Disposal Considerations

**Disposal Considerations:**
Material is shipped to hazardous treatment facility for stabilization of leachable chromium and landfill disposal.

### 14. Transportation Information
**Shipping Name (TDGR)**  
Brine Mud  

**UN Number**  
n/a  

**Hazard Class**  
15.  

**Packing Group**  
/ a  

15. **Regulatory Information**

**Safety:**

**Environmental:**

**Transportation:**

16. **Other Information**

**Summary of Changes Made in this Revision:**

This is a new TIS.

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