SAFETY DATA SHEET: NICKEL SULFATE

1. IDENTIFICATION

Product Name: NICKEL SULFATE
Synonyms: Nickelous sulfate; Nickel (II) sulfate; Sulfuric acid nickel salt
Formula and Formula Weight: NiSO₄·6H₂O 262.88
Integra numbers beginning with: N751.10
Recommended Use: Commercial/industrial use
Restrictions on Use: No information available

INTEGRA Chemical Company
24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000

2. HAZARDS IDENTIFICATION

OSHA Classification:

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Hazard Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>4</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>2</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>1</td>
<td>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td>1</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>2</td>
<td>Suspected of causing genetic defects.</td>
</tr>
<tr>
<td>1A</td>
<td>May cause cancer.</td>
</tr>
<tr>
<td>1B</td>
<td>May damage fertility or the unborn child.</td>
</tr>
<tr>
<td>1</td>
<td>Causes damage to organs through prolonged or repeated exposure.</td>
</tr>
</tbody>
</table>

Signal Word: DANGER

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area. Do not breathe dust, fume, gas, mist, vapors, spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Wear respiratory protection. Wear protective gloves, protective clothing, eye protection, face protection.

Response
If on skin: Wash with plenty of water.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If exposed or concerned: Get medical advice, attention.
Specific treatment (see first aid section on this label)
Rinse mouth.
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.

Storage
Store locked up.

Disposal
Dispose of contents, container in accordance with all governmental regulations.

Hazard Not Otherwise Classified: No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>% Weight</th>
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</thead>
<tbody>
<tr>
<td>Nickel sulfate hexahydrate</td>
<td>07786-81-4</td>
<td>100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.
9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Blue-green crystals
- Odor: Odorless
- Odor Threshold: Not available
- pH: ~ 4.5
- Melting/Freezing Point: Not available
- Initial Boiling Point and Boiling Range: Loses H2O @103 °C
- Flash Point: Not available
- Evaporation Rate: Not available
- Flammability: Not available
- Flammable or Explosive Limits (% by volume in air) - Upper: Not available, Lower: Not available
- Vapor Pressure: Not available
- Vapor Density: Not available
- Relative Density: 2.03 g/cc
- Solubility: 75g/100 ml water @15.5°C
- Partition Coefficient: n-octanol/water: Not available
- Auto-Ignition Temperature: Not available
- Decomposition Temperature: Not available
- Viscosity: Not available

10. STABILITY AND REACTIVITY

- Reactivity: No information available
- Stability: Stable
- Possibility of Hazardous Reactions: Hazardous polymerization will not occur
- Conditions to Avoid: Excessive heat.
**11. TOXICOLOGICAL INFORMATION**

***Effects of Over Exposure:***

**Inhalation:** Inhalation may irritate the nose, throat and upper respiratory tract.

**Skin Contact:** May cause skin irritation. Prolonged contact may cause dermatitis.

**Eye Contact:** May irritate or burn the eyes.

**Ingestion:** May cause gastrointestinal upset with symptoms of abdominal pain, vomiting and diarrhea. Absorption is poor, but if it occurs, symptoms include giddiness, central nervous system depression, kidney and liver damage and capillary damage.

**Chronic Effects:** Prolonged exposure may affect the lungs, liver and kidneys. Skin allergy may result from exposure to nickel compounds.

**Target Organs:** No information available

**Additional Effects:** May aggravate pre-existing respiratory, skin, liver and kidney conditions.

**Reproductive Effects:** May damage fertility or the unborn child.

**Carcinogenicity:** Nickel sulfate hexahydrate is listed by the NTP as Anticipated Human Carcinogen (as Nickel compounds) and by the IARC as Group 1, Known Human Carcinogen (as Nickel compounds).

**Toxicity Data:**

<table>
<thead>
<tr>
<th>Substance</th>
<th>LD50 (oral, rat)</th>
<th>mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel sulfate hexahydrate</td>
<td></td>
<td>361</td>
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</table>

**12. ECOLOGICAL INFORMATION**

**Aquatic Toxicity Data:**

<table>
<thead>
<tr>
<th>Substance</th>
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</thead>
<tbody>
<tr>
<td>Nickel sulfate hexahydrate</td>
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</table>

**Terrestrial Toxicity Data:**

<table>
<thead>
<tr>
<th>Substance</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Nickel sulfate hexahydrate</td>
<td></td>
</tr>
</tbody>
</table>

**13. DISPOSAL CONSIDERATIONS**

**Disposal Procedures:** Dispose of material and containers in accordance with all local, state and federal regulations.

**14. TRANSPORTATION INFORMATION**

This product is a regulated material for domestic ground transportation, per CFR Title 49.

<table>
<thead>
<tr>
<th>UN Number:</th>
<th>UN3077</th>
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<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Environmentally hazardous substance, solid, nos (nickel sulphate hexahydrate)</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>III</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>9</td>
</tr>
<tr>
<td>Environmental hazards:</td>
<td>No information available</td>
</tr>
<tr>
<td>Special precautions:</td>
<td>No information available</td>
</tr>
<tr>
<td>Bulk transport:</td>
<td>No information available</td>
</tr>
</tbody>
</table>

**15. REGULATORY INFORMATION**

Nickel sulfate hexahydrate is listed in the TSCA inventory and in SARA 313 (as nickel compounds).

**16. OTHER INFORMATION**

OSHA SDS #: 25996 rev 101 3/27/2015  

NE = Not established, NA = Not applicable or Not available

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***** END OF SDS *****