1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODE: NICKEL CRYSTALS

MANUFACTURER
Caswell Inc
7696 Route 31
Lyons, NY 14489

Emergency Contact: Caswell Inc
Product Stewardship: 315 946 1213
Transportation: 800 424 9300
Service Number: 315 946 1213

24 HR. EMERGENCY TELEPHONE NUMBERS
CHEMTREC (US TRANSPORTATION) - 1 800 424 9300
CHEMTREC (INTERNATIONAL - CALL COLLECT) - 1 703 527 3887

USA

Emergency Contact: Caswell Inc
Emergency Phone: +1 315 946 1213
Service Number: +1 315 946 1213
Transportation Number: +1 703 527 3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

<table>
<thead>
<tr>
<th>Health</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity (Oral), Category 3</td>
<td>Aquatic Toxicity, Chronic 1</td>
</tr>
<tr>
<td>Acute Toxicity (Inhalation), Category 4</td>
<td></td>
</tr>
<tr>
<td>Skin Corrosion, Category 3</td>
<td></td>
</tr>
<tr>
<td>Respiratory Sensitization, Category 1</td>
<td></td>
</tr>
<tr>
<td>Skin Sensitization, Category 1</td>
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</tr>
<tr>
<td>Carcinogenicity, Category 1A</td>
<td></td>
</tr>
<tr>
<td>Reproductive Toxicity, Category 2</td>
<td></td>
</tr>
<tr>
<td>Target Organ Toxicity (Repeated exposure), Category 2</td>
<td></td>
</tr>
</tbody>
</table>

GHS LABEL
### Material Safety Data Sheet

**Date Issued:** 09/03/2010  
**MSDS No:** N15C

<table>
<thead>
<tr>
<th>Skull and crossbones</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DANGER</strong></td>
<td></td>
</tr>
</tbody>
</table>
| H301: Toxic if swallowed.  
H332: Harmful if inhaled.  
H317: May cause an allergic skin reaction.  
9242258Q: Causes damage to lungs through prolonged or repeated inhalation exposure.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H410: Very toxic to aquatic life with long lasting effects. |
| **Health hazard**    |             |
| **DANGER**           |             |
| H360: May damage fertility or the unborn child .  
H350: May cause cancer . |

#### Precautionary Statement(s)

**Prevention:**
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P270: Do not eat, drink or smoke when using this product.
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P285: In case of inadequate ventilation wear respiratory protection.
- P202: Do not handle until all safety precautions have been read and understood.
- P273: Avoid release to the environment.

**Response:**
- P301+A1600: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- 8524GZTR: IF SWALLOWED: Induce vomiting immediately, as directed my medical personnel. Seek medical attention immediately.

**Disposal:**
- 5692C3NH: Dispose of contents/container in accordance to all local, state and federal regulations.

#### Potential Health Effects

**EYES:** Causes eye irritation.

**SKIN:** Long term exposure to skin may cause skin irritation and may cause sensitization or allergic reactions resulting in chronic eczema or "nickel itch"

**INGESTION:** Harmful if swallowed.

**INHALATION:** Dust and processing vapors may cause respiratory tract irritation.

#### Signs and Symptoms of Overexposure

**CHRONIC EFFECTS:** Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

**CARCINOGENICITY:** Cancer hazard.
3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CAS</th>
<th>EINECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel Sulfate</td>
<td>70-80</td>
<td>7786-81-4</td>
<td>-</td>
</tr>
<tr>
<td>Nickel Chloride</td>
<td>10-15</td>
<td>7718-54-9</td>
<td>-</td>
</tr>
<tr>
<td>Boric Acid</td>
<td>5-10</td>
<td>11113-50-1</td>
<td>234-343-4</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**EYES:** Flush eye with water for 15 minutes. Get medical attention.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**INGESTION:** If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

5. FIRE FIGHTING MEASURES

**FLAMMABLE LIMITS:** Not flammable

**FIRE FIGHTING PROCEDURES:** As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Clean up spills immediately, observing precautions in Protective Equipment section.

**ENVIRONMENTAL PRECAUTIONS**

- **WATER SPILL:** Do not allow to reach sewer or water source.

7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Avoid contact with eyes, skin, and clothing.

**HANDLING:** Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE GUIDELINES**

<table>
<thead>
<tr>
<th>OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)</th>
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<tbody>
<tr>
<td><strong>EXPOSURE LIMITS</strong></td>
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<tr>
<td>OSHA PEL</td>
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<tr>
<td>ppm</td>
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<td>Chemical Name</td>
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<td>Nickel Sulfate</td>
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**PERSONAL PROTECTIVE EQUIPMENT**

- **EYES AND FACE:** Wear safety glasses with side shields (or goggles) and a face shield.

- **SKIN:** Wear gloves.
RESPIRATORY: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

PROTECTIVE CLOTHING: Wear suitable protective clothing at all times.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid
ODOR: None
APPEARANCE: Green crystal
SOLUBILITY IN WATER: 62
SPECIFIC GRAVITY: 2.070

10. STABILITY AND REACTIVITY

STABLE: Yes
HAZARDOUS POLYMERIZATION: No
HAZARDOUS DECOMPOSITION PRODUCTS: When heating in air, toxic SO2/SO3 gas can be formed

11. TOXICOLOGICAL INFORMATION

ACUTE
ORAL LD₅₀: 275 mg/kg (rat)
CARCINOGENICITY
IARC: Suspect cancer hazard.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Toxic to aquatic life

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Comply with all local, state and federal laws.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)
PROPER SHIPPING NAME: Environmentally Hazardous Substances, Solids, N.O.S.
TECHNICAL NAME: Nickel Sulfate
PRIMARY HAZARD CLASS/DIVISION: 9
UN/NA NUMBER: UN3077
PACKING GROUP: III

15. REGULATORY INFORMATION

UNITED STATES
DOT LABEL SYMBOL AND HAZARD CLASSIFICATION

Class 9
MATERIAL SAFETY DATA SHEET

Date Issued: 09/03/2010
MSDS No: N15C

TSCA (TOXIC SUBSTANCE CONTROL ACT)

<table>
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<tr>
<td>Boric Acid</td>
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TSCA STATUS: All ingredients in this mixture are in compliance with TSCA.

CALIFORNIA PROPOSITION 65: WARNING: This product contains a chemical known to the State Of California to cause cancer and/or reproductive harm.

16. OTHER INFORMATION

REASON FOR ISSUE: Add GHS Info
PREPARED BY: L CASWELL
REVISION SUMMARY: New MSDS

HMIS RATING

- HEALTH: * 3
- FLAMMABILITY: 0
- PHYSICAL HAZARD: 0
- PERSONAL PROTECTION: C

NFPA CODES

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