1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Basic Chromium Sulfate Solution

CAS #: 12336-95-7

Manufacturer: Sentury Reagents, Inc.
2515 Commerce Dr.
Rock Hill, SC 29730

Emergency Phone #: PERS 800-633-8253 or International: 011-801-629-0667

2. HAZARDS IDENTIFICATION

Hazard Classification
Skin Irritant

GHS Label elements, including precautionary statements

Pictogram

Signal word WARNING

Hazard statement(s)
H315 Causes skin irritation

Precautionary statement(s)
P264 Wash hands and face thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 If on skin wash with plenty of water with mild soap.
P332+P313 If skin irritation occurs: get medical attention
P362+P364 Take off contaminated clothing and wash before reuse.

HMIS Classification
Health hazard: 1
Flammability: 0
Physical hazards: 0

NFPA Rating
Health hazard: 1
Fire: 0
Reactivity hazard: 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: Cr2(SO4)2OH

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium (III) Sulfate Basic</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>12336-95-7</td>
</tr>
<tr>
<td>Water</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7732-18-5</td>
</tr>
</tbody>
</table>

Sentury Reagents, Inc.
4. FIRST AID MEASURES
   
   **General advice**
   Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

   **If inhaled**
   Remove victim to fresh air. Employ artificial respiration if indicated. Seek medical attention.

   **In case of skin contact**
   Wash affected area with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical attention.

   **In case of eye contact**
   Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.

   **If swallowed**
   Rinse mouth thoroughly with water immediately. Give water or milk to drink. DO NOT induce vomiting. Seek medical attention.

5. FIRE-FIGHTING MEASURES
   
   **Conditions of flammability**
   Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gasses.

   **Suitable extinguishing media**
   Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

   **Special protective equipment for firefighters**
   Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES
   
   **Spills & Disposal**
   Do NOT touch or walk through this product. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas. Prevent dust cloud. Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.

7. HANDLING AND STORAGE
   
   **Precautions for safe handling**
   Only use in well-ventilated areas. Avoid generation or accumulation of dusts. Avoid prolonged or repeated contact with skin, eyes and clothing.

   **Conditions for safe storage**
   Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
   
<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium (III) sulfate basic</td>
<td>12336-95-7</td>
<td>TWA</td>
<td>0.5 mg/m³</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
</tbody>
</table>

   **Personal protective equipment**

   **Respiratory protection**
   Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 – Respiratory Protective Devices and be selected in accordance with AS 1715 – Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-face piece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

   **Hand protection**
   Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

   **Eye protection**
   The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate.

   **Skin and body protection**
   Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid</td>
</tr>
<tr>
<td>Colour</td>
<td>Green to blue liquid</td>
</tr>
<tr>
<td>Safety data</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>2-3</td>
</tr>
<tr>
<td>Melting point/</td>
<td>no data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>no data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>no data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.2 – 1.3</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Soluble</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/</td>
<td>no data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>no data available</td>
</tr>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>no data available</td>
</tr>
</tbody>
</table>

10. **STABILITY AND REACTIVITY**

**Chemical stability**
Stable under recommended storage conditions.

**Conditions to avoid**
Incompatibles.

**Materials to avoid**
Strong oxidizing agents, lithium, nitroalkanes, dirubidium acetylide, oxygen difluoride, chlorine trifluoride.

**Hazardous decomposition products**
Sulfur and Chromium oxides.

**Hazardous Polymerization**
Will not occur.

11. **TOXICOLOGICAL INFORMATION**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>LD50 Oral - mouse - &gt; 3,500 mg/kg</td>
</tr>
</tbody>
</table>

**Other information on acute toxicity**
no data available

**Skin**
Harmful in contact with skin. Causes skin burns.

**Eyes**
Irritating to eyes.

**Inhalation**
Harmful by inhalation. Causes irritation and burns to mucous membrane of throat and upper respiratory system. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

**Germ cell mutagenicity**
No evidence of mutagenic properties.
Carcinogenicity
Not classified as human carcinogen.

Reproductive toxicity
no data available

Teratogenicity
no data available

Synergistic effects
no data available

Additional Information
RTECS: GB2975000

12. ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility
no data available

PBT and vPvB assessment
no data available

13. DISPOSAL CONSIDERATIONS

Product: Dispose of according to relevant local, state and federal government regulations.

14. TRANSPORT INFORMATION

DOT (US)
Not Dangerous Goods

IMDG
Not Dangerous Goods

IATA
Not Dangerous Goods

15. REGULATORY INFORMATION

OSHA Hazards
No known OSHA hazards

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313:

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sentury Reagents, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Sentury Reagents, Inc.