1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Lithium chromate solution
Manufacturer: Sentury Reagents, Inc.
2515 Commerce Dr.
Rock Hill, SC 29730
Telephone: +1 803-327-6880
Fax: +1 803-327-3872
Emergency Phone #: PERS: 800-633-8253 or International 011-801-629-0667
Account 10613

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Carcinogen, Target Organ Effect, Skin and respiratory sensitiser

Target Organs
Blood, Central nervous system, Lungs, Kidney

GHS Classification
Respiratory sensitisation (Category 1)
Skin sensitisation (Category 1)
Carcinogenicity (Category 1A)

GHS Label elements, including precautionary statements

Pictogram
Signal word Danger
Hazard statement(s)
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H350 May cause cancer.

Precautionary statement(s)
P201 Obtain special instructions before use.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

HMIS Classification
Health hazard: 2
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 0
Personal protection: F

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

Potential Health Effects
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.
3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: CrH2O4 · 2Li

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium chromate</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>14307-35-8</td>
</tr>
<tr>
<td>EC-No.</td>
<td>238-244-7</td>
</tr>
<tr>
<td></td>
<td>20%</td>
</tr>
</tbody>
</table>

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**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**
Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**
Flush eyes with water as a precaution.

**If swallowed**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

**Hazardous combustion products**
Hazardous decomposition products formed under fire conditions. - Lithium oxides, Chromium oxides

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

**Precautions for safe handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Conditions for safe storage**
Keep container tightly closed in a dry and well-ventilated place.
8. EXPOSURE CONTROLS/PERSOANAL PROTECTION

Components with workplace control parameters

<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>Remarks</td>
<td></td>
<td></td>
<td></td>
<td>See 1910.1026. See Table Z-2 for the exposure limit for any operations or sectors where the exposure limit in 1910.1026 is stayed or are otherwise not in effect.</td>
</tr>
<tr>
<td>Substance listed; for more information see OSHA document 1910.1026</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lithium chromate</td>
<td>14307-35-8</td>
<td>CEIL 1mg/10m3</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Z37.7-1971 This standard applies to any operations or sectors for which the exposure limit in the Chromium (VI) standard, Sec. 1910.1026, is stayed or is otherwise not in effect.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>See 1910.1026. See Table Z-2 for the exposure limit for any operations or sectors where the exposure limit in 1910.1026 is stayed or are otherwise not in effect.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 0.001 mg/m3</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Potential Occupational Carcinogen See Appendix C See Appendix A</td>
<td></td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

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

Appearance
Form liquid 20%
Colour clear yellow solution

Safety data
pH 9
Melting point/freezing point no data available

Page 3 of 7
Boiling point 107.2 °C
Flash point not applicable
Ignition temperature no data available
Auto-ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure no data available
Density 1.20 @ 20°C
Water solubility 94%
Partition coefficient: n-octanol/water no data available
Relative vapour density no data available
Odour odorless
Odour Threshold no data available
Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
Avoid reducing agents

Materials to avoid
no data available

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Lithium oxides, Chromium oxides
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50 no data available

Inhalation LC50 no data available

Dermal LD50 no data available

Other information on acute toxicity no data available

Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

Respiratory or skin sensitisation

- Lithium oxides, Chromium oxides
May cause allergic respiratory and skin reactions

**Germ cell mutagenicity**
no data available

**Carcinogenicity**
Human carcinogen.

IARC: 1 - Group 1: Carcinogenic to humans (Lithium chromate)
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: Known to be human carcinogen (Lithium chromate)
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**
no data available

**Teratogenicity**
no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**
no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**
no data available

**Aspiration hazard**
no data available

**Potential health effects**

- **Inhalation**
  May be harmful if inhaled. May cause respiratory tract irritation.
- **Ingestion**
  May be harmful if swallowed.
- **Skin**
  May be harmful if absorbed through skin. May cause skin irritation.
- **Eyes**
  May cause eye irritation.

**Signs and Symptoms of Exposure**
Ulceration of the nasal septum, perforation of the nasal septum, Contact with breaks in the skin can cause; Ulceration, Discoloration of the; teeth, nephritis, epigastric distress, Large doses of lithium ion have caused dizziness and prostration, and can cause kidney damage if sodium intake is limited. Dehydration, weight loss, dermatological effects, and thyroid disturbances have been reported. Central nervous system effects that include slurred speech, blurred vision, sensory loss, ataxia, and convulsions may occur. Diarrhea, vomiting, and neuromuscular effects such as tremor, clonus, and hyperactive reflexes may occur as a result of repeated exposure to lithium ion., Vomiting, Diarrhoea, Abdominal pain

**Synergistic effects**
no data available

**Additional Information**
RTECS: GB2915000

---

12. **ECOLOGICAL INFORMATION**

**Toxicity**
no data available

**Persistence and degradability**
no data available

**Bioaccumulative potential**
no data available

**Mobility in soil**
no data available

**PBT and vPvB assessment**
no data available
13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lithium chromate solution), 9, PGIII

IMDG
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Lithium chromate solution), 9, PGIII

IATA
UN number: 3082  Class: 9  Packing group: III
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Lithium chromate solution)

15. REGULATORY INFORMATION

OSHA Hazards
Carcinogen, Target Organ Effect, Skin and respiratory sensitisier

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
The following components are subject to reporting levels established by SARA Title III, Section 313:

<table>
<thead>
<tr>
<th>Lithium chromate</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14307-35-8</td>
<td>04/24/1993</td>
</tr>
</tbody>
</table>

Sara 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
Lithium chromate

Pennsylvania Right To Know Components
Lithium chromate

New Jersey Right To Know Components
Lithium chromate

California Prop. 65 Components
WARNING! This product contains a chemical known to the State of California to cause cancer.

<table>
<thead>
<tr>
<th>Lithium chromate</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14307-35-8</td>
<td>04/24/1993</td>
</tr>
</tbody>
</table>

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. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.