MATERIAL SAFETY DATA SHEET

Lambert Southwest
Division of G. W. Holladay Interests Inc.
P O Box 1111, Henderson TX 75653
Date: January 2012

Chemical Emergency INFOTRAC 800-535-5053

HAZARD MATERIAL IDENTIFICATION SYSTEM

Health Hazard 1 - Slight
Flammability Hazard 0 - Minimal
Reactivity Hazard 0 - Minimal
Personal Protection E - Glasses, Gloves, Dust Resp

SECTION I. MATERIAL IDENTIFICATION

Trade/Material Name: CHROMIUM OXIDE
Description: Green chromium oxide powder
Other Designations: 219-0015 Irish Green
CAS: 1308-38-9
Chemical Name: Cr₂O₃

SECTION II. INGREDIENTS AND HAZARDS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CAS NO.</th>
<th>PERCENT</th>
<th>EXPOSURE LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium oxide green</td>
<td>1308-38-9</td>
<td>&gt;98%</td>
<td>ACGIH TLV: 0.5 mg/M³ TWA (Chromium III compounds=Cr)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OSHA PEL: 0.5mg/M³ TWA (as Cr)</td>
</tr>
</tbody>
</table>

(Ingredients and Hazards continued on next page)
CALIFORNIA - PROPOSITION 65

This material may contain approximately 100 ppm hexavalent chromium. Hexavalent chromium is on the Governor's list of "Chemicals known to cause cancer or reproductive toxicity." The California Health and Welfare Agency has established a "no significant risk" level for hexavalent chromium of 0.001 micrograms/day. Workplace exposure to this product below the TLV for chromic oxide could result in exposures to hexavalent chromium in excess of 0.001 microgram/day. Appropriate warnings should be given.

SARA TITLE III: Section 313 Supplier Notification

This product does contain toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

Chromium compound - 99+% CAS#1308-38-9

This information must be included in all MSDS sheets that are copied or distributed.

SECTION III. PHYSICAL/CHEMICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and Odor:</td>
<td>Green Powder, No Odor</td>
</tr>
<tr>
<td>Solubility in Water (%)</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Specific Gravity (H₂O=1)</td>
<td>5.2</td>
</tr>
<tr>
<td>Flash Point (method):</td>
<td>Non-flammable</td>
</tr>
</tbody>
</table>

SECTION IV. FIRE AND EXPLOSION DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extinguishing Media:</td>
<td>Non-flammable. Use appropriate extinguishing media for the combustible material involved in the fire.</td>
</tr>
<tr>
<td>Unusual Fire or Explosion Hazards:</td>
<td>None</td>
</tr>
<tr>
<td>Special Fire fighting Procedures:</td>
<td>Fire fighter should wear self-contained breathing apparatus.</td>
</tr>
</tbody>
</table>

SECTION V. REACTIVITY DATA

Material is stable - Hazardous polymerization will not occur

Chemical incompatibilities: Can react with molten alkali at very high temperatures under oxidizing conditions. May react with chlorine trifluoride, lithium, nitroalkanes, dirubidium acetylide fluoride, lithium difluoride and other strong oxidizers.

(Reactivity Data continued on the next page)
SECTION VI. HEALTH HAZARD DATA

Summary of Health Risks and Symptoms of Exposure: May cause skin and eye irritation. Repeated and prolonged exposures to trivalent chromium compounds may cause delayed effects involving the respiratory system.

Principal Routes of Entry: Inhalation, ingestion, skin and eye contact.

Acute Effects: Causes skin irritation. May cause eye irritation.

Chronic Health Effects: Contains trivalent chromium compound. As noted by the American Conference of Governmental Industrial Hygienists in their publication "Documentation of the Threshold Limit Values" repeated and prolonged exposures to trivalent chromium compounds may cause delayed effects involving the respiratory system.

Emergency and First Aid Procedures:

- **Eye Contact:** Flush thoroughly with plenty of water for at least 15 minutes. Call a physician.
- **Skin Contact:** Wash skin with mild soap and water. Remove contaminated clothing. If irritation develops, consult a physician.
- **Inhalation:** Remove to fresh air. Call a physician.
- **Ingestion:** If conscious, give large quantities of water to induce vomiting. Get medical attention.

Acute Oral LD<sub>50</sub> in rats greater than 5000 MG/KG

SECTION VII. PRECAUTIONS FOR HANDLING, USE OR DISPOSAL

Spill/Leak procedures: Vacuum or use wet clean-up techniques and place waste material in closed container.

(Precautions continued on next page)
(Precautions continued from previous page)


Chromium (III) Oxide is reportable under SARA Title III, Section 311, 312, & 313.

Chromium (III) Oxide is not listed in Appendix A and B, 40 CFR 355, as an Extremely Hazardous Substance.

SECTION VIII. SPECIAL PROTECTION INFORMATION

Personal Protective Equipment:

Goggles: Wear safety glasses or goggles to protect against dust particles.

Gloves: Rubber or Neoprene glove recommended to avoid direct skin contact.

Respirator: Use of NIOSH approved dust respirator is recommended when exposure limits may be exceeded.

Workplace Considerations:

Ventilation: Local exhaust ventilation to collector or containment recommended to control dust to below exposure limits.

Safety Stations: An eye wash station should be available to the area of use.

Other: In accordance with good industrial hygiene practice, avoid contact with skin, eyes or clothing. Avoid breathing dust. Keep away from food products. Keep container closed when not in use. Use with adequate, localized ventilation. Wash thoroughly after handling and before eating, drinking or using tobacco products. Contaminated clothing should be laundered carefully to avoid secondary exposures to product.

SECTION IX. SPECIAL PRECAUTIONS

DOT Class: Not regulated

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