

# MATERIAL SAFETY DATA SHEET

## Section 1 - Chemical Product and Company Identification

**MSDS Name:** Chromium (III) oxide  
**Catalog Numbers:** AC192080000, AC192085000, AC353580000, C333-3, C334-500, NC9609821, S79968, XXC33410KG  
**Synonyms:** Chromic Sesquioxide; chrome green; chrome oxide; chromium sesquioxide; chromium (3+) trioxide; dichromium trioxide  
**Company Identification:** Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
**For information in the US, call:** 201-796-7100  
**Emergency Number US:** 201-796-7100  
**CHEMTREC Phone Number, US:** 800-424-9300

## Section 2 - Composition, Information on Ingredients

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**CAS#:** 1308-38-9  
**Chemical Name:** Chromium (III) oxide  
**%:** 99-100.0  
**EINECS#:** 215-160-9  
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**Hazard Symbols:** None listed

**Risk Phrases:** None listed

## Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

Warning! May cause allergic skin reaction. Hygroscopic (absorbs moisture from the air). May cause eye, skin, and respiratory tract irritation. Target Organs: None.

### Potential Health Effects

**Eye:** Dust may cause mechanical irritation.

**Skin:** May cause skin irritation. May cause an allergic reaction in certain individuals.

**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation.

**Inhalation:** May cause respiratory tract irritation.

**Chronic:** Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. Repeated inhalation may cause chronic bronchitis.

## Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to:** Treat symptomatically and supportively.

Physician:

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

**Autoignition Temperature:** Noncombustible.

**Flash Point:** Not available

**Explosion Limits:** Not available

**Lower:**

**Explosion Limits:** Not available

**Upper:**

**NFPA Rating:** health: 1; flammability: 0; instability: 0;

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits**

| Chemical Name               | ACGIH       | NIOSH       | OSHA - Final PELs |
|-----------------------------|-------------|-------------|-------------------|
| Chromium (III) oxide listed | none listed | none listed | none              |

OSHA Vacated PELs: Chromium (III) oxide: None listed

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard

EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### Section 9 - Physical and Chemical Properties

**Physical State:** Powder  
**Color:** light to dark green  
**Odor:** odorless  
**pH:** 7.5@ 0.5% soln.  
**Vapor Pressure:** Not applicable.  
**Vapor Density:** Not applicable.  
**Evaporation Rate:** Not available  
**Viscosity:** Not applicable.  
**Boiling Point:** 4000 deg C ( 7,232.00°F)  
**Freezing/Melting Point:** 2435 deg C ( 4,415.00°F)  
**Decomposition Temperature:** Not available  
**Solubility in water:** insoluble in water.  
**Specific Gravity/Density:** 5.21 (water=1)  
**Molecular Formula:** Cr2O3  
**Molecular Weight:** 151.9902

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions. Hygroscopic: absorbs moisture or water from the air.  
**Conditions to Avoid:** Dust generation, exposure to moist air or water.  
**Incompatibilities with Other Materials** Alkaline earth metals, chlorine trifluoride, oxygen difluoride, lithium, rubidium, rubidium acetylide, glycerol.  
**Hazardous Decomposition Products** Not known.  
**Hazardous Polymerization** Has not been reported.

### Section 11 - Toxicological Information

**RTECS#:** CAS# 1308-38-9: GB6475000  
**LD50/LC50:** RTECS: Not available.  
**Carcinogenicity:** Chromium (III) oxide - IARC: Group 3 (not classifiable)  
**Epidemiology:** Not available  
**Teratogenicity:** Not available  
**Reproductive:** Not available  
**Neurotoxicity:** Not available  
**Mutagenicity:** Not available  
**Other:** The toxicological properties have not been fully investigated.

### Section 12 - Ecological Information

**Other:**

### Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.

### Section 14 - Transport Information

US DOT  
Shipping Name: Not regulated as a hazardous material  
Hazard Class:

UN Number:  
Packing Group:  
Canada TDG  
Shipping Name: Not available  
Hazard Class:  
UN Number:  
Packing Group:

## Section 15 - Regulatory Information

### US Federal

#### TSCA

CAS# 1308-38-9 is listed on the TSCA Inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules Section 12b

None of the chemicals in this product are under a Chemical Test Rule. None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 1308-38-9: acute, chronic.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

#### STATE

Chromium (III) oxide can be found on the following state right to know lists: New Jersey, Massachusetts.

#### California Prop 65

#### California No Significant Risk Level:

None of the chemicals in this product are listed.

#### European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 28 After contact with skin, wash immediately with...

WGK (Water Danger/Protection)

CAS# 1308-38-9: 1

Canada

CAS# 1308-38-9 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 1308-38-9 is listed on Canada's Ingredient Disclosure List

#### Section 16 - Other Information

**MSDS Creation Date:** 5/18/1999

**Revision #6 Date** 10/29/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.