

MSDS# 90875

Section 1 - Chemical Product and Company Identification

MSDS Name: Chromium  
Catalog Numbers: C318-500  
Synonyms: Chrome  
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#: 7440-47-3  
Chemical Name: Chromium  
%: 100.0  
EINECS#: 231-157-5  
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Hazard Symbols: XN



Risk Phrases: 40

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! May cause allergic skin reaction. May cause liver damage. May cause kidney damage. May cause lung damage.  
Causes eye and skin irritation. Causes severe respiratory tract irritation. Target Organs: Liver.

Potential Health Effects

Eye: Causes eye irritation. May cause conjunctivitis.

Skin: Causes skin irritation. Prolonged and/or repeated contact may cause irritation and/or dermatitis. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.

Ingestion: May cause irritation of the digestive tract. May cause liver damage.

Inhalation: Causes respiratory tract irritation. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. May cause asthma and shortness of breath. May cause headache, coughing, fever, weight loss, and pneumoconiosis.

Chronic: Prolonged inhalation may cause respiratory tract inflammation and lung damage.

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 immediately.

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: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:

### Section 5 - Fire Fighting Measures

General Information: Evacuate area and fight fire from a safe distance. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. May burn with invisible flame. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Dust can be an explosion hazard when exposed to heat or flame. Finely divided dusts may exhibit pyrophoric tendencies.

Extinguishing Media: Use dry sand or earth to smother fire. Use dry chemical to fight fire. Contact professional fire-fighters immediately.

Autoignition Temperature: 400 deg C ( 752.00 deg F)

Flash Point: Not applicable.

Explosion Limits: Lower: .0230oz/ft3

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; flammability: 1; instability: 1;

### 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. Remove all sources of ignition. Isolate area and deny entry. Place under an inert atmosphere. Do not use combustible materials such as paper towels to clean up spill.

### Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Use spark-proof tools and explosion proof equipment. Avoid contact with skin and eyes. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Handle under an inert atmosphere.

Storage: Keep away from heat, sparks, and flame. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from acids. Keep containers tightly closed. Do not expose to air. Store under an inert atmosphere.

### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Chromium	0.5 mg/m3	0.5 mg/m3 TWA 250 mg/m3 IDLH	1 mg/m3 TWA

OSHA Vacated PELs: Chromium: 1 mg/m3 TWA

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

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 gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a Respirators: 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: Solid

Color: silver-gray

Odor: odorless

pH: Not available

Vapor Pressure: Not applicable.

Vapor Density: Not available

Evaporation Rate: Not applicable.

Viscosity: Not applicable.

Boiling Point: 2640 deg C ( 4,784.00°F)

Freezing/Melting Point: 1857.2 deg C ( 3,374.96°F)

Decomposition Temperature: Not available

Solubility in water: Insoluble in water.

Specific Gravity/Density: 7.2 @28°C

Molecular Formula: Cr

Molecular Weight: 51.996

#### Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Ignition sources, dust generation, exposure to air.
Incompatibilities with Other Materials	Not available
Hazardous Decomposition Products	Toxic chromium oxide fumes.
Hazardous Polymerization	Has not been reported.

#### Section 11 - Toxicological Information

RTECS#:	CAS# 7440-47-3: GB4200000
LD50/LC50:	RTECS: Not available.
Carcinogenicity:	Chromium - IARC: Group 3 (not classifiable)
Other:	See actual entry in RTECS for complete information.

#### Section 12 - Ecological Information

Not available

#### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

#### 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:

USA RQ: CAS# 7440-47-3: 5000 lb final RQ (no reporting of releases of this hazardous substa

#### Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 40 Limited evidence of a carcinogenic effect.

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 7440-47-3: Not available

Canada

CAS# 7440-47-3 is listed on Canada's DSL List

Canadian WHMIS Classifications: Not controlled.

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# 7440-47-3 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 7440-47-3 is listed on the TSCA  
Inventory.

#### Section 16 - Other Information

MSDS Creation Date: 5/29/1998

Revision #12 Date 7/20/2009

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.

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