

Chromium Trioxide Safety Data Sheet (SDS)

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chromium Trioxide

Signal Word
DANGER

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261

Chemtrec Emergency Phone Number: (800) 424-9623

Pictograms

SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Oxidizing solids (Category 1). May cause fire or explosion; strong oxidizer (H271). Keep away from heat, sparks, open flames, and hot surfaces. No smoking (P210).

Hazard class: Acute toxicity, oral and dermal (Category 3). Toxic if swallowed and in contact with skin (H301+H311). Do not eat, drink or smoke when using this product (P270).

Hazard class: Skin corrosion or irritation (Category 1). Causes severe skin burns and eye damage (H314). Do not breathe Do not breathe dust or fumes (P260).

Hazard class: Sensitization, skin and respiratory tract (Category 1). May cause an allergic skin reaction, allergy or asthma symptoms or breathing difficulties if inhaled (H317+H334).

Hazard class: Acute toxicity, inhalation (Category 1). Fatal if inhaled (H330).

Hazard class: Germ cell mutagenicity (Category 1). May cause genetic defects (H340). Obtain special instructions before use (P201). Do not handle until all safety precautions have been read and understood (P202). Use personal protective equipment as required (P281).

Hazard class: Carcinogenicity (Category 1). May cause cancer (H350).



SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Chromium trioxide	1333-82-0	CrO ₃	100.01	
Synonyms: Chromium(VI) oxide; Chromic acid; Chromic anhydride				

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell (P312).

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340).

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). Immediately call a POISON CENTER or physician (P310).

If on skin or hair: Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353).

If swallowed: Rinse mouth. Immediately call a POISON CENTER or physician (P301+P310+P330).

SECTION 5 — FIRE FIGHTING MEASURES

Strong oxidizing agent. Explosion and fire hazard on contact with organic material.

Nonflammable solid.

When heated to decomposition, may emit toxic fumes.

NFPA Code

H-3

F-0

In case of fire: Use a tri-class dry chemical fire extinguisher (P370+P378).

R-1

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosions (P371+P380+P375).

Oxidizer

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #4. Store with hydroxides, oxides, silicates and carbonates.

Deliquescent. Store in a cool, dry place within a Flinn Chem-Saf™ bag and then inside a Flinn Saf-Stor™ can.

Keep container tightly closed (P233). Use only in a hood or well-ventilated area (P271). Do not breathe dust or fumes (P260).

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264).

Wear fire- or flame-resistant clothing (P283). Contaminated work clothing should not be allowed out of the workplace (P272). Use only in a hood or well-ventilated area (P271). Wear respiratory protection (P284).

Exposure guidelines: PEL 0.005 mg/m³ (OSHA); TLV 0.05 mg/m³ (ACGIH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Dark purple-red flakes, crystals, or powder. Odorless. Decomposes at 250 °C

Soluble: Water, alcohol, and mineral acids Melting point: 197 °C

Specific gravity: 2.7

SECTION 10 — STABILITY AND REACTIVITY

Strong oxidizing agent, avoid contact with organic materials, heat, and phosphorus. Decomposes at 250 °C.

Shelf life: Poor, deliquescent. See Section 7 for further information.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Highly toxic and corrosive.

ORL-RAT LD₅₀: 80 mg/kg

Chronic effects: Carcinogen and mutagen.

IHL-RAT LC₅₀: N.A.

Target organs: N.A.

SKN-RBT LD₅₀: N.A.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.

Flinn Suggested Disposal Method #12a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Chromic acid, solid. Hazard class: 5.1, Oxidizer, corrosive. UN number: NA1463.

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (215-607-8), RCRA code D001, D007.

SECTION 16 — OTHER INFORMATION

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N.A. = Not available, not all health aspects of this substance have been fully investigated.

N/A = Not applicable

Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.

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