



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Chromium (VI) Oxide**
PRODUCT NUMBER: 11913
CAS NUMBER: 1333-82-0
SYNONYMS: Chromium trioxide, Chromic anhydride, Monochromium trioxide

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H271	May cause fire or explosion; strong oxidizer.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or exposure if inhaled.
H400	Very toxic to aquatic life.

Precautionary Phrases

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220	Keep/Store away from clothing/combustible materials.
P221	Take any precaution to avoid missing with combustibles.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

P262	Do not get in eyes, or skin, or on clothing.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P371+P380+P375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

HMIS CLASSIFICATION:

Health: 4 Fire: 0 Reactivity Hazard: 2

NFPA RATING:

Health: 4 Flammability: 0 Reactivity Hazard: 2 Special Hazard: OX

EYE CONTACT: Causes severe eye burns.

SKIN CONTACT: May be fatal if absorbed through skin. Causes skin burns.

INHALATION: Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

INGESTION: Toxic if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: CrO₃

Molecular Weight: 99.99

CHEMICAL NAME	CAS#	%
Chromium Trioxide	1333-82-0	>99

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: In case of eye contact, rinse with plenty of water and seek medical attention immediately.

SKIN EXPOSURE: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.

INHALATION: Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use appropriate media for adjacent fire. Cool containers with water.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Chromium oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts and aerosols.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Keep away from incompatible materials.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Chromic acid	0.05 mg/m ³	TLV	ACGIH
	0.1 mg/m ³	STEL	OSHA
	0.001 mg/m ³	REL	NIOSH

STEL: Short Term Exposure Limit during x minutes.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles with face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, and complete body suit.

VENTILATION: Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.

RESPIRATOR: Use an approved respirator

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Dark red crystals, flakes or powder

ODOR: Odorless

MOLECULAR WEIGHT: 99.99

BOILING POINT: Not available

MELTING POINT: 197°C

SPECIFIC GRAVITY: 2.7

VAPOR DENSITY: No data available

SOLUBILITY IN WATER: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Heat and moisture

INCOMPATIBILITY: Organic materials, phosphorus, and powdered metals.

DECOMPOSITION PRODUCTS: Chromium oxides.

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Skin – Rabbit – 57 mg/kg. LC50 Respiratory – Rat – 21.7 mg/kg. LD50 Ingestion – Rat – 80 mg/kg.
CARCINOGENIC EFFECTS: This product is confirmed to be a carcinogen by all sources available.
MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells, bacteria, yeast.
TETRATOGENIC EFFECTS: May alter genetic material.
RTECS: GB6650000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

AQUATIC VERTEBRATE: LC50 – Tilapia mossambica – 21-141 mg/L – 96h. LC50 – Leuciscus idus – 100 mg/L – 48h.
AQUATIC INVERTEBRATE: EC50 – Daphnia magna – 0.8 mg/L – 48h.
TERRESTRIAL: Not available

This product is very toxic to aquatic life.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN1463

Chromium Trioxide, anhydrous

CLASS 5.1 (6.1) (8)

PG II

Marine Pollutant: Yes

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

DSCL (EEC): Listed on the DSCL inventory

SARA 302/304: Chromium Trioxide

SARA 311/312: Reactivity hazard, Acute health Hazard, Chronic health hazard.

SARA (TITLE 313): Chromium Trioxide

CALIFORNIA PROP. 65: Chromium Trioxide

WHMIS CANADA: Class C: Oxidizing material. Class D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).
Class D-2A: Material causing other toxic effects (VERY TOXIC). Class E: Corrosive solid.

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE REVISED: 12/22

SDS DEPT.