

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Chromium Sulfate Solution
CAS #	10101-53-8
Manufacturer	Sentury Reagents, Inc. 2515 Commerce Dr. Rock Hill, SC 29730
Telephone	803-327-6880
Fax	803-327-3872
Emergency Phone #	PERS: 800-633-8253
International #	011-801-629-0667
Account	10613

2. HAZARDS IDENTIFICATION**OSHA Hazards**

Toxic by inhalation, Harmful by ingestion, Harmful by skin absorption, Corrosive

Target Organs

None

Pictogram



Signal word DANGER

GHS Classification

Acute toxicity, Inhalation	Category 4
Acute toxicity, Dermal	Category 4
Acute toxicity, Oral	Category 4
Skin corrosion	Category 1B
Serious eye damage	Category 1

GH3 Label elements, including precautionary statements**Hazard Statements:**

H318	Causes serious eye damage.
H302+H312	Harmful if swallowed or in contact with skin.
H332	Harmful if inhaled.

Precautionary Statements:

P280	Wear protective gloves/protective clothing/eye protection/face protection.
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.

Potential Health Effects

Eyes	Causes eye burns.
Inhalation	Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	Causes skin burns.
Ingestion	Toxic if swallowed.

HMIS Classification

Health hazard:	2
Flammability:	0
Reactivity hazard:	0
Personal protection	F

NFPA Rating

Health hazard:	2
Fire:	0
Reactivity hazard:	0
Personal hazard:	E

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Chromium Sulfate	6-25	10101-53-8	233-253-2	$\text{Cr}_2(\text{SO}_4)_3 \cdot n\text{H}_2\text{O}$	392.18 g/mol

4. FIRST AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (sulfur oxides, chromium oxides) under fire conditions. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
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	Pick up and arrange spillage without creating dust. Sweep up and place in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.

Conditions for safe storage

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Chromium Sulfate	0.5 mg/m ³	PEL	OSHA
	0.5 mg/m ³	TLV	ACGIH
	0.5 mg/m ³	REL	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat.
Other	Not Available

Other Recommendations

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Green to Blue Liquid
Odor	Not Available
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	100°C (212°F)
Initial boiling point and boiling range	Not Available
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Not Available
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	Not Available
Vapor density	Not Available
Density	3.01 g/cm ³
Solubility (ies)	Soluble in water, methanol.
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Not Available
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Sulfur oxides, chromium oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	Not Available

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Itching, swelling, redness, pain.
Eyes	Itching, swelling, redness, pain.
Respiratory	Upper respiratory tract and mucous membrane irritation.
Ingestion	Nausea, vomiting.

Chronic Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	Not Available
Aquatic Invertebrate	Not Available
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste products or residues.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORT INFORMATION

US DOT	UN3264 Corrosive Liquid, Acidic, Inorganic n.o.s. (Chromium Sulfate Solution), 8, III
IMDG	UN3264 Corrosive Liquid, Acidic, Inorganic n.o.s. (Chromium Sulfate Solution), 8, III
Marine Pollutant	No
IATA/ICAO	UN3264 Corrosive Liquid, Acidic, Inorganic n.o.s. (Chromium Sulfate Solution), 8, III

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	No SARA hazards.
SARA 302	No SARA hazards.
SARA 304	No SARA hazards.
SARA 311	No SARA hazards.
SARA 312	No SARA hazards.
SARA 313	Listed: Chromium sulfate.
WHMIS Canada	Not controlled under WHMIS.

16. OTHER INFORMATION

Further information:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sentury Reagents, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.