

# SAFETY DATA SHEET

Revision Date 18-December-2025

Revision Number 6

This safety data sheet was created pursuant to the requirements of: Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) - SOR 2022-272

## 1. Identification

<b>Product Name</b>	<b>Cleaning Solution</b>
<b>Cat No. :</b>	<b>SC88-1; SC88-212; SC88-212E; SC88-500; SC88S-212; SC88S-500</b>
<b>Synonyms</b>	Chromic acid-sulfuric acid
<b>Recommended Use</b>	Laboratory chemicals.
<b>Uses advised against</b>	Food, drug, pesticide or biocidal product use.

### Details of the supplier of the safety data sheet

#### Company

**Importer/Distributor**  
Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

**Manufacturer**  
Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

#### **Emergency Telephone Number**

CHEMTREC®, Inside the USA: 800-424-9300  
CHEMTREC®, Outside the USA: 001-703-527-3887

## 2. Hazard(s) identification

### Classification

**WHMIS 2015 Classification** This product is hazardous in accordance with the Canada Hazardous Products Act (HPA) and Hazardous Products Regulation (HPR), as amended (SOR/2022-272)

<b>Skin Corrosion/Irritation</b>	Category 1 A
<b>Serious Eye Damage/Eye Irritation</b>	Category 1
<b>Germ Cell Mutagenicity</b>	Category 1B
<b>Carcinogenicity</b>	Category 1A
<b>Specific target organ toxicity (single exposure)</b>	Category 3
Target Organs - Respiratory system.	

### Label Elements

**Signal Word**  
Danger

**Hazard Statements**  
Causes severe skin burns and eye damage

May cause respiratory irritation  
 May cause genetic defects  
 May cause cancer



### Precautionary Statements

#### Prevention

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Do not breathe dust/fumes/gas/mist/vapours/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Use only outdoors or in a well-ventilated area  
 Wear protective gloves/protective clothing/eye protection/face protection

#### Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER/doctor  
 Wash contaminated clothing before reuse

#### Storage

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Other Hazards

Harmful to aquatic life with long lasting effects

## 3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Sulfuric acid	7664-93-9	93.87
Water	7732-18-5	5.63
Chromium trioxide	1333-82-0	0.50

## 4. First-aid measures

#### General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

#### Inhalation

If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required.

<b>Ingestion</b>	Do NOT induce vomiting. Call a physician or poison control center immediately.
<b>Most important symptoms/effects</b>	Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation
<b>Notes to Physician</b>	Treat symptomatically

### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point Method -</b>	Not applicable No information available
<b>Autoignition Temperature</b>	No information available
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

**Specific Hazards Arising from the Chemical**  
 Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

**Hazardous Combustion Products**  
 Thermal decomposition can lead to release of irritating gases and vapors. Sulfur oxides. Chromium oxide.

**Protective Equipment and Precautions for Firefighters**  
 As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**NFPA**

<b>Health</b>	<b>Flammability</b>	<b>Instability</b>	<b>Physical hazards</b>
3	0	2	W

### 6. Accidental release measures

<b>Personal Precautions</b>	Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>Environmental Precautions</b>	Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.
<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

### 7. Handling and storage

<b>Handling</b>	Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.
<b>Storage.</b>	Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Metals. Bases. Reducing Agent.

### 8. Exposure controls / personal protection

**Exposure Guidelines**

Component	Alberta	British Columbia	Ontario TWAEV	Quebec
Sulfuric acid	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Chromium trioxide	TWA: 0.05 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.025 mg/m <sup>3</sup> STEL: 0.1 mg/m <sup>3</sup> Ceiling: 0.1 mg/m <sup>3</sup> Skin	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>

Component	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
Sulfuric acid	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>
Chromium trioxide	STEL: 0.0005 mg/m <sup>3</sup> Skin	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.0002 mg/m <sup>3</sup> STEL: 0.0005 mg/m <sup>3</sup> Skin	TWA: 0.0002 mg/m <sup>3</sup> STEL: 0.0005 mg/m <sup>3</sup> Skin

Component	Nunavut	Prince Edward Island	Saskatchewan	Yukon
Sulfuric acid	TWA: 0.2 mg/m <sup>3</sup> STEL: 0.6 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> STEL: 0.6 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 1 mg/m <sup>3</sup>
Chromium trioxide	TWA: 0.05 mg/m <sup>3</sup> STEL: 0.15 mg/m <sup>3</sup>	TWA: 0.0002 mg/m <sup>3</sup> STEKL: 0.0005 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup> STEL: 0.15 mg/m <sup>3</sup> STEL: 1.5 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.1 mg/m <sup>3</sup>

Component	ACGIH TLV	OSHA PEL	NIOSH
Sulfuric acid 7664-93-9 ( 93.87 )	TWA: 0.2 mg/m <sup>3</sup>	(Vacated) TWA: 1 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	IDLH: 15 mg/m <sup>3</sup> REL = 1 mg/m <sup>3</sup> (TWA)
Chromium trioxide 1333-82-0 ( 0.50 )	TWA: 0.0002 mg/m <sup>3</sup> STEL: 0.0005 mg/m <sup>3</sup> Skin	(Vacated) Ceiling: 0.1 mg/m <sup>3</sup> Ceiling: 0.1 mg/m <sup>3</sup>	IDLH: 15 mg/m <sup>3</sup> REL = 0.0002 mg/m <sup>3</sup> (TWA)

**Legend**

ACGIH - American Conference of Governmental Industrial Hygienists  
 OSHA - Occupational Safety and Health Administration  
 NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures**

Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

**Personal protective equipment**

**Eye Protection**

Goggles

**Hand Protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

Glove material	Breakthrough time	Glove thickness	Glove comments
Butyl rubber	See manufacturers recommendations	-	Splash protection only

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

**Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified 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.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly  
**Recommended Filter type:** Acid gases filter Type E Yellow conforming to EN14387

When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls**

Prevent product from entering drains.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties**

**Appearance**

**Physical State** Liquid

**Color** Dark brown

**Odor** Odorless

**Odor Threshold** No information available

**Property**

**Melting Point/Range** -5 °C / 23 °F

**Softening Point** No data available

**Boiling Point/Range** 290 °C / 554 °F

**Flash Point** Not applicable

**Flammability (liquid)** No data available

**Flammability (solid,gas)** Not applicable

**Explosion Limits** No data available

**Autoignition Temperature** No data available

**Decomposition Temperature** No data available

**pH** < 1

**Viscosity** No data available

**Water Solubility** Miscible

**Solubility in other solvents** No information available

**Partition Coefficient (n-octanol/water)**

**Vapor Pressure** .001 mmHg @ 20 °C

**Density / Specific Gravity** 1.9

**Bulk Density** Not applicable

**Vapor Density** No information available

**Particle characteristics** Not applicable (liquid)

**Remarks**

**Method**

**Method -** No information available

Liquid

Acidic

Liquid  
(Air = 1.0)

**Other Information**

**Evaporation Rate** No information available

**10. Stability and reactivity**

**Reactive Hazard** Yes

**Stability** Water reactive.

**Conditions to Avoid** Incompatible products. Excess heat.

**Incompatible Materials** Metals, Bases, Reducing Agent

**Hazardous Decomposition Products** Thermal decomposition can lead to release of irritating gases and vapors, Sulfur oxides, Chromium oxide

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

### Information on expected route of exposure

**Inhalation** Harmful by inhalation.  
**Ingestion** Ingestion causes burns of the upper digestive and respiratory tracts. Can burn mouth, throat, and stomach. Harmful if swallowed.  
**Eyes** Causes burns. Corrosive to the eyes and may cause severe damage including blindness. Risk of serious damage to eyes.  
**Skin** Causes burns.

### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sulfuric acid	2140 mg/kg ( Rat )	-	LC50 = 0.375 mg/L ( Rat ) 4 h
Water	-	-	-
Chromium trioxide	LD50 = 80 mg/kg ( Rat )	LD50 = 57 mg/kg ( Rabbit )	LC50 = 217 mg/m <sup>3</sup> ( Rat ) 4 h

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** Category 1 A

**(c) serious eye damage/irritation;** Category 1

**(d) respiratory or skin sensitization;**  
**Respiratory** No data available  
**Skin** No data available

**(e) germ cell mutagenicity;** Category 1B

**(f) carcinogenicity;** Category 1A

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Sulfuric acid	7664-93-9	Group 1	Known	A2	X	A2
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Chromium trioxide	1333-82-0	Group 1	Known	A1	X	A1

*IARC (International Agency for Research on Cancer)*

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 Group 1 - Carcinogenic to Humans

*NTP: (National Toxicity Program)*

*Group 2A - Probably Carcinogenic to Humans*  
*Group 2B - Possibly Carcinogenic to Humans*  
*NTP: (National Toxicity Program)*  
*Known - Known Carcinogen*  
*Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen*

*ACGIH: (American Conference of Governmental Industrial Hygienists)*

*A1 - Known Human Carcinogen*  
*A2 - Suspected Human Carcinogen*  
*A3 - Animal Carcinogen*  
*ACGIH: (American Conference of Governmental Industrial Hygienists)*  
*Mexico - Occupational Exposure Limits - Carcinogens*  
*A1 - Confirmed Human Carcinogen*  
*A2 - Suspected Human Carcinogen*

*Mexico - Occupational Exposure Limits - Carcinogens*

A3 - Confirmed Animal Carcinogen  
 A4 - Not Classifiable as a Human Carcinogen  
 A5 - Not Suspected as a Human Carcinogen

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

**Symptoms / effects,both acute and delayed** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

**Ecotoxicity**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not allow material to contaminate ground water system. The product contains following substances which are hazardous for the environment. May cause long-term adverse effects in the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Sulfuric acid	-	LC50: > 500 mg/L, 96h static (Brachydanio rerio)	-	EC50: 29 mg/L/24h
Chromium trioxide	Not listed	LC50: = 40 mg/L, 96h static (Colisa fasciatus)	Not listed	Not listed

**Persistence and Degradability** May persist based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT**

UN-No UN3264  
 Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s.  
 Hazard Class 8  
 Packing Group II

**TDG**

UN-No UN3264  
 Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s.

<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>IATA</b>	
<b>UN-No</b>	UN3264
<b>Proper Shipping Name</b>	Corrosive liquid, acidic, inorganic, n.o.s.
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>IMDG/IMO</b>	
<b>UN-No</b>	UN3264
<b>Proper Shipping Name</b>	Corrosive liquid, acidic, inorganic, n.o.s.
<b>Hazard Class</b>	8
<b>Packing Group</b>	II

## 15. Regulatory information

### International Inventories

Component	CAS-No	DSL	NDSL	TSCA	TSCA Inventory notification - Active-Inactive	EINECS	ELINCS	NLP
Sulfuric acid	7664-93-9	X	-	X	ACTIVE	231-639-5	-	-
Water	7732-18-5	X	-	X	ACTIVE	231-791-2	-	-
Chromium trioxide	1333-82-0	X	-	X	ACTIVE	215-607-8	-	-

Component	CAS-No	IECSC	KECL	ENCS	ISHL	TCSI	AICS	NZIoC	PICCS
Sulfuric acid	7664-93-9	X	KE-32570	X	X	X	X	X	X
Water	7732-18-5	X	KE-35400	X	-	X	X	X	X
Chromium trioxide	1333-82-0	X	KE-06020	X	X	X	X	X	X

#### Legend:

X - Listed '-' - Not listed

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

### Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and its amendments and meets the requirements of the HPR (Paragraph 13(1)(a) of the revised Hazardous Products Act (HPA)).

Component	Canada - National Pollutant Release Inventory (NPRI)	Canadian Environmental Protection Agency (CEPA) - List of Toxic Substances	Canada's Chemicals Management Plan (CEPA)
Sulfuric acid	Part 1, Group A Substance		
Chromium trioxide	Part 1, Group B Substance Part 1, Group A Substance		

#### Legend

NPRI - National Pollutant Release Inventory

### Other International Regulations

#### Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)

Sulfuric acid	-	Use restricted. See entry 75. (see link for restriction details)	-
Chromium trioxide	Carcinogenic Category 1B, Mutagenic Category 1B Article 57 Application date: March 21, 2016 Sunset date: September 21, 2017 Exemption - None	Use restricted. See entry 72. (see link for restriction details) Use restricted. See entry 28. (see link for restriction details) Use restricted. See entry 29. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details) Use restricted. See entry 47. (see link for restriction details)	SVHC Candidate list - 215-607-8 - Carcinogenic, Article 57a; Mutagenic, Article 57b

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

**REACH links**

<https://echa.europa.eu/authorisation-list>

<https://echa.europa.eu/substances-restricted-under-reach>

<https://echa.europa.eu/candidate-list-table>

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	CAS-No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Sulfuric acid	7664-93-9	Listed	Not applicable	Not applicable	Not applicable
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable
Chromium trioxide	1333-82-0	Listed	Not applicable	Not applicable	Not applicable

Component	CAS-No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Sulfuric acid	7664-93-9	Not applicable	Not applicable	Not applicable	Annex I - Y34
Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable
Chromium trioxide	1333-82-0	Not applicable	Not applicable	Not applicable	Annex I - Y21

## 16. Other information

**Prepared By**

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**Revision Summary**

This document has been updated to comply with the requirements of WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) to align with the Globally Harmonised System (GHS) (V7/8) for the Classification and Labelling of Chemicals.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**