

## Material Safety Data Sheets

### 1. IDENTIFICATION

Product Name	Sulfochromic acid Extra pure
Other Names	Dichromate-sulfuric acid mixture.
Code No	100-SCA-2
Uses	No Data Available
Chemical Family	No Data Available
Chemical Formula	No Data Available
Chemical Name	Chromosulfuric acid
Product Description	No Data Available
Company	Arman sina.co
Contact Information	<a href="mailto:info@armansina.com">info@armansina.com</a> <a href="http://www.armansina.com">www.armansina.com</a>

### 2. HAZARD IDENTIFICATION

Hazard Categories	Skin Corrosion/irritation Toxicity Oxidizing Harmful to environment
Risk Phrases	May cause cancer May cause heritable genetic damage May impair fertility May cause harm to the unborn child Also toxic by inhalation Causes severe burns May cause sensitization by inhalation and skin contact Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Symbol



### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sulfuric acid	No Data Available	7664-93-9	>90 %
Potassium dichromate	No Data Available	7778-50-9	<1.3 %

#### 4. FIRST AID MEASURES

##### Description of necessary measures according to routes of exposure

General Advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Inhalation	If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Move to fresh air. Immediate medical attention is required.
Protection of First-aiders	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
Most important	Causes burns by all exposure routes. May cause allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. . 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: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

#### 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	CO 2, dry chemical, dry sand, alcohol-resistant foam.
Extinguishing media which must not be used for safety reasons	Water.
Special hazards arising from the substance or mixture	Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.
Hazardous Combustion Products	Sulfur oxides, Hydrogen, Thermal decomposition can lead to release of irritating gases and vapors.
Advice 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.

#### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Avoid substance contact. Do not breathe vapours, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
Environmental precautions	Do not empty into drains.
Methods and materials for containment and cleaning up	Cover drains. Collect, bind, and pump off spills. Take up with liquid-absorbent and neutralizing material. Dispose of properly. Clean up affected area.

## 7. HANDLING AND STORAGE

Handling	Use only under a chemical fume hood. Wear personal protective equipment Do not get in eyes, on skin, or on clothing Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Avoid prolonged or repeated exposure. Keep away from heat and flame. Keep away from sources of ignition. Ground and secure containers when dispensing or pouring product. Use explosion proof equipment and non-sparking tools.Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, metals, acids, alkalis.
Storage	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Store in a segregated and approved area. Store in a flame proof area. Keep away from ignition source such as heat, lighting, strong oxidizing agent, strong acid-base. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). This product has a UN classification of 2789 and a Dangerous Goods Class 8 (Corrosive) according to The Australian Code for the Transport of Dangerous goods By Road and Rail.
Container	Container type/packaging must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS	Use only in a chemical fume hood. Safety shower and eye bath.
GENERAL HYGIENE MEASURES	Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.
PERSONAL PROTECTIVE EQUIPMENT	Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying Respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Hand Protection: Compatible chemical-resistant gloves. Eye Protection: Chemical safety goggles. Special Protective Measures:Faceshield (8-inch minimum).
Skin and body protection	Long sleeved clothing Inspect gloves before use. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Ensure 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. Remove gloves with care avoiding skin contamination.
Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to EN14387
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141 When RPE is used a face piece Fit Test should be conducted

Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	Prevent product from entering drains.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	liquid
Colour	red brown
Odour	odourless
Odour Threshold	No information available.
pH	at 20 ° C strongly acid
Melting point	No information available.
Boiling point	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	not applicable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	No information available.
Relative density	1,84 g/cm <sup>3</sup> at 20 ° C
Water solubility	at 20 ° C soluble, (caution ! development of heat)
Partition coefficient: n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	Oxidising potential

## 10. STABILITY AND REACTIVITY

Chemical stability	The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	Violent reactions possible with: alkalines Risk of ignition or formation of inflammable gases or vapours with: Acetone, halides Light metals, Possible formation of: Hydrogen Exothermic reaction with: Water, hydrochloric acid Risk of explosion with: organic combustible substances, highly flammable solvents , Impurities acetic acid, Combustible Liquids
Conditions to avoid	Strong heating.
Incompatible materials	Aluminium, Copper, Copper alloys, Hydrogen may form upon contact with light metals (danger of explosion!).
Hazardous decomposition products	in the event of fire.

## 11. TOXICOLOGICAL INFORMATION

<b>SENSITIZATION</b>	Respiratory: May cause allergic respiratory reaction. Skin: May cause skin sensitization
<b>SIGNS AND SYMPTOMS OF EXPOSURE</b>	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.
<b>ROUTE OF EXPOSURE</b>	Skin Contact: Causes burns. Skin Absorption: May be harmful if absorbed through the skin. Eye Contact: Causes burns. Inhalation: Toxic if Inhaled: Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion: May be harmful if swallowed.
<b>TARGET ORGAN INFORMATION</b>	Lungs. Kidneys. Blood. Teeth. Cardiovascular system.
<b>CHRONIC EXPOSURE – CARCINOGEN</b>	Result: This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.
<b>CHRONIC EXPOSURE - MUTAGEN</b>	Result: May alter genetic material.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Do not empty into drains. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.	
<b>Sulfuric acid</b>	<b>Freshwater Fish</b> 500 mg/L LC50 96 h	<b>Water Flea</b> EC50: 29 mg/L/24h
<b>Potassium dichromate</b>	26 mg/L LC50 96 h 23 - 41.2 mg/L LC50 96 h 24.81 - 34.55 mg/L LC50 96 h 14 - 20.9 mg/L LC50 96 h 15.41 - 30.36 mg/L LC50 96 h 21.209 - 30.046 mg/L LC50 96 h 12.3 mg/L LC50 96 h 65.6 - 137.6 mg/L LC50 96 h 320 mg/L LC50 96 h 113.6 - 155.7 mg/L LC50 96 h 139 mg/L LC50 96 h	EC50: 1.4 mg/L 24h
<b>Persistence/Degradability</b>	Soluble in water, Persistence is unlikely, based on information available. Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.	

<b>Mobility</b>	The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils
<b>Bio accumulative potential</b>	Bioaccumulation is unlikely
<b>Results of PBT and vPvB</b>	No data available for assessment.
<b>Endocrine Disruptor Information</b>	This product does not contain any known or suspected endocrine disruptors
<b>Persistent Organic Pollutant</b>	This product does not contain any known or suspected substance

### 13. DISPOSAL CONSIDERATIONS

<b>Waste from Residues / Unused Products</b>	Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
<b>Contaminated Packaging</b>	Dispose of this container to hazardous or special waste collection point.
<b>European Waste Catalogue (EWC)</b>	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
<b>Other Information</b>	Do not dispose of waste into sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Solutions with low pH-value must be neutralized before discharge. Do not let this chemical enter the environment.

### 14. TRANSPORT INFORMATION

#### Land Transport

<b>Proper Shipping Name</b>	CHROMOSULPHURIC ACID
<b>Class</b>	8 Corrosive Substances
<b>UN Number</b>	2240
<b>Pack Group</b>	I
<b>Special Provision</b>	No Data Available

#### Sea Transport IMDG

<b>Proper Shipping Name</b>	CHROMOSULPHURIC ACID
<b>Class</b>	8 Corrosive Substances
<b>UN Number</b>	2240
<b>Pack Group</b>	I
<b>Special Provision</b>	No Data Available
<b>Marine Pollutant</b>	No

#### Air Transport IATA

<b>Proper Shipping Name</b>	CHROMOSULPHURIC ACID
<b>Class</b>	8 Corrosive Substances
<b>UN Number</b>	2240
<b>Pack Group</b>	I
<b>Special Provision</b>	No Data Available

## 15. OTHER INFORMATION

Revision	1
Key/Legend	< Less Than > Greater Than atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm Square Centimetres CO <sub>2</sub> Carbon Dioxide COD Chemical Oxygen Demand Degrees Celsius EPA (New Zealand) Environmental Protection Authority of New Zealand Degrees Fahrenheit g Grams g/cm Grams per Cubic Centimetre g/l Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluble in each other. inHg Inch of Mercury inH <sub>2</sub> O Inch of Water K Kelvin kg Kilogram kg/m Kilograms per Cubic Metre lb Pound LC <sub>50</sub> LC stands for lethal concentration. LC <sub>50</sub> is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. LD <sub>50</sub> LD stands for Lethal Dose. LD <sub>50</sub> is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. ltr or L Litre m Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH <sub>2</sub> O Millimetres of Water mPa.s Millipascals per Second N/A Not Applicable NIOSH National Institute for Occupational Safety and Health NOHSC National Occupational Health and Safety Commission OECD Organisation for Economic Co-operation and Development Oz Ounce PEL Permissible Exposure Limit Pa Pascal ppb Parts per Billion ppm Parts per Million ppm/2h Parts per Million per 2 Hours ppm/6h Parts per Million per 6 Hours psi Pounds per Square Inch R Rankine RCP Reciprocal Calculation Procedure STEL Short Term Exposure Limit TLV Threshold Limit Value tne Tonne TWA Time Weighted Average ug/24H Micrograms per 24 Hours UN United Nations wt Weight