



Safety Data Sheet

Section 01 - Identification

Product Identifier	Silver (I) Sulfate
Other Means of Identification	Sulfuric Acid Disilver (1+) Salt
Product Use and Restrictions on Use	Metal plating, chemical synthesis, chemical catalyst.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
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Section 02 - Hazard Identification

GHS-Classification

Serious Eye Damage/Irritation	Category 1
Acute Aquatic Toxicity	Category 1
Chronic Aquatic Toxicity	Category 1

Physical Hazards

No known physical hazards.

Danger

Hazards Statements

H318 – Causes serious eye damage.

H400 – Very toxic to aquatic life.

H410 – Very toxic to aquatic life with long lasting effects.

Pictograms



Precautionary Statements

P280 – Wear eye protection and face protection.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 – Immediately call a POISON CENTER or doctor/physician.

P273 – Avoid release to the environment.

P391 – Collect spillage.

P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Silver (I) Sulfate	10294-26-5	98-100%	

Section 04 - First Aid Measures

Inhalation	Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.
Skin Contact / Absorption	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persist.
Eye Contact	Immediately flush eye(s) with lukewarm, gently flowing water for 30 minutes while forcibly holding the eyelids open to ensure complete irrigation of the eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention.
Ingestion	NEVER give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Seek medical attention.
Additional Information	Conditions aggravated by exposure: May cause argyria (a slate-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver). Conditions aggravated by overexposure: Prolonged or repeated inhalation, application, or ingestion of silver compounds may cause a permanent bluish discoloration of the skin and mucous membranes.

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Use water spray, carbon dioxide, dry chemical powder, or appropriate foam.
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	Can decompose to emit toxic fumes such as Sulphur oxides and silver oxides under fire conditions.
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective equipment.
Further Information	Not Available.

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Avoid dust formation.
Environmental Precautions	Prevent material from entering sewers or confined spaces.
Methods and Materials for Containment and Cleaning Up	Sweep up and containerize for reclamation or disposal. Vacuuming or sweeping may be used to avoid dust dispersal. Keep in suitable, closed container for disposal.

Section 07 - Handling and Storage

Precautions for Safe Handling	Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Avoid the formation of dust and aerosols. Use with adequate ventilation.
Conditions for Safe Storage	Keep in an opaque, tightly sealed container in a cool, dry, well-ventilated area. Product is light sensitive.
Incompatibilities	Strong oxidizing agents. Avoid exposure to light.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Silver (I) Sulfate	Not Available		

Engineering Control(s)

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face	Chemical safety goggles. A face shield may also be necessary. Contact lenses should not be worn as they may contribute to severe eye injury.
Hand Protection	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
Skin and Body Protection	Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.
Respiratory Protection	NIOSH approved chemical cartridge respirator for dust/mist/fume/radionuclide or self-contained breathing apparatus with full-face shield.
Thermal Hazards	Not Available.

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Crystals or crystalline powder
Colour	Colourless to white
Odour	Not Available
Odour Threshold	Not Available

Property

pH	Not Applicable
Melting Point/Freezing Point	652°C
Initial Boiling Point and Boiling Range	1085°C
Flash Point	Not Applicable
Evaporation Rate	Not Available
Flammability	Non-flammable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20°C)	Not Available
Vapour Density (Air=1)	5.450 g/cm ³
Relative Density	Not Available
Solubility(ies)	Partly soluble in water.
Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available
Explosive Properties	Not Available
Specific Gravity (Water=1)	5.45 @ 29°C
% Volatiles by Volume	Not Available
Formula	Ag ₂ SO ₄
Molecular Weight	311.81g/mol

Section 10 - Stability and Reactivity

Reactivity	Not Available
Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	Not Available
Conditions to Avoid	Avoid exposure to light.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Sulfur oxides and silver oxides.

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Silver (I) Sulfate	Not Available	Not Available	Not Available

Chronic Toxicity – Carcinogenicity

Component	IARC
Silver (I) Sulfate	Not Available

Skin Corrosion/Irritation	Causes skin irritation. May be harmful if absorbed through skin.
Ingestion	May be harmful if swallowed.
Inhalation	Causes respiratory tract irritation. May be harmful if inhaled.
Serious Eye Damage/Irritation	Causes serious eye irritation.
Respiratory or Skin Sensitization	Not Available
Germ Cell Mutagenicity	Not Available
Reproductive Toxicity	Not Available
STOT-Single Exposure	Not Available
STOT-Repeated Exposure	Not Available
Aspiration Hazard	Not Available
Synergistic Materials	Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Silver (I) Sulfate	Not Available	Not Available	EC50(Ceriodaphnia dubia, 48hr): 0.0045mg/L
Biodegradability	Not Available		
Bioaccumulation	Not Available		
Mobility	Not Available		
Other Adverse Effects	Very toxic to aquatic life.		

Section 13 – Disposal Considerations

Waste From Residues/Unused Products	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number	UN3077
UN Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Silver (I) Sulfate)
Transport Hazard Class(es)	9

Packaging Group	III	
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.	
Special Precautions	Not Available	
Transport in Bulk	Not Available	
Additional Information	<u>Packing Group</u> III	<u>Limited Quantity Index</u> 5 Kg

TDG

Other Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 – Other Information

Preparation Date September 11, 2015

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution[®] initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

References:

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA

ClearTech Industries Inc. - Locations

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