



Centre Anti-Poison pour le Québec: (800) 463-5060

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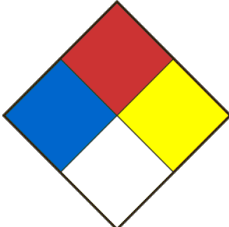
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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier SILVER CLEANING SOLUTION		Product Use Laboratory use	
Chemical formula -		Product code SS-2255	Molar weight
Chemical name / Commercial name / Synonymous SOLUTION DE NETTOYAGE D'ARGENT			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS 5/24/2023	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Corrosive to metals-Category 1 Serious eye damage/eye irritation - Serious eye damage category 1 Carcinogenicity category 2 Reproductive toxicity category 2 Skin corrosion/irritation - Skin corrosion category 1
Signal Word	DANGER
Hazards statements (H)	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H351 Suspected of causing cancer. H361 Suspected of damaging fertility or the unborn child.
Precautionary statements (P)	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P234 Keep only in original container. P260 Do not breathe dust / fume / gas / mist / vapors / spray. P264 Wash the areas of the body that have been in contact with the product after handling. 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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/attention. P310 Immediately call a POISON CENTER or doctor/physician. P321 Specific treatment (see section 4 of the SDS and on this label). P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage. P405 Store locked up. P406 Store in a corrosion resistant container / or a container with corrosion resistant liner. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 2 Fire 0 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Acide sulfurique	7664-93-9	2
Thiourée	62-56-6	5

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Skin, eye and respiratory system irritation. Cough. Breathing difficulties. Nausea and vomiting. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	It is not considered flammable, but can burn at high temperatures.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Do not use a heavy water stream.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: - Sulphur oxides Hydrogène sulfide. - Carbon oxides, nitrogen oxides (NOx).
Special fire and explosion hazards	When concentrated, the product reacts according to the following characteristics: Sulfuric acid reacts violently with water and can ignite organic matter. Risk of fire or explosion if heated in the presence of combustible products. May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Ensure a good ventilation of the premises. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Do not let product enter drains.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in cool place. Keep container tightly closed and store away from heat, water, moisture, and incompatible products. Protect from the sun's rays. Reacts violently with water. Keep container tightly closed in a dry and well-ventilated place.
Methods of handling	Avoid contact with the skin, eyes and clothes. Avoid ingestion and inhalation. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Sulfuric acid	7664-93-9	TWA	0.2 mg/m ³	Canada. British Columbia OEL
Remarks	ACGIH 'A2' applies to those substances that are considered suspected human carcinogens. IARC '1' applies to substances categorized as carcinogenic to humans, and used when there is sufficient evidence of carcinogenicity in humans.			
		TWAEV	0.2 mg/m ³	Canada. Ontario OELs
		STEV	3 mg/m ³	Canada. Ontario OELs
		STEL	3 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	1 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	0.2 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	0.2 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich (Millipore Sigma) CNESTT
Ventilation	Proper ventilation or hood.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid.
Appearance	Liquide clair.
Odour	Donnée non disponible.
Odour threshold	Data not available
pH	Donnée non disponible.
Melting point / Freezing point	Data not available
Initial boiling point	Data not available
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Solubility	Miscible avec l'eau en toutes proportions. Miscible avec l'alcool.
Vapour density	Data not available
Relative density	1.04g/ml (Théorique).
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Acid product, reacts strongly with strong bases. Reacts strongly with metals.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid contact with incompatible materials and extreme temperatures. This product darkens when exposed to light.
Incompatible material	When pure, the products react with the following products: Acrylonitrile. Alkalis, gallium perchlorate, sodium nitrite, titanium tetrachloride, phosphorus pentachloride, chromyl chloride, With hypochlorites, it forms nitrogen trichloride which is explosive. Water, metals, alcohols, reducing agents, bases, organic and combustible materials, azides, bromates, carbides, chlorates, chromates, cyanides, ferrocyanides, fulminates, glycerides, halides, nitrates, nitrites, permanganates, perchlorates, picrates, sulphides, hydrogen peroxide, nitromethane, phosphorus, heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Sulphur oxides. Hydrogen sulfide - nitrogen oxides (NO _x). Carbon monoxide (CO), Carbon dioxide (CO ₂)

SECTION 11 - TOXICOLOGICAL INFORMATION

SULFURIC ACID

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below. The corrosive effect will outweigh the toxicity for the concentrated product.
- Eyes	Severe burns and corrosion of ocular tissue that may lead to corneal ulceration and blindness.
- Skin	Severe burns and tissue ulcerations. May be fatal, if the extent of the burns is considerable.
- Inhalation	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death.
Acute toxicity (Ingestion)	Corrosion and ulceration of the mouth, throat, esophagus, stomach and abdominal wall. Dysphagia, kidney damage, abdominal pain, cramps, diarrhea, melena, hematemesis, anuria, possible perforation of the esophagus and stomach, convulsions, salivation, stupor, circulatory collapse, unconsciousness, coma and can lead to death .
Chronic exposure effects / symptoms	Burning sensation, dermatitis and dyschromia, conjunctivitis, lung and eye damage, chest pain, digestive disorders, tooth abrasion, cough, dyspnea, laryngitis, emphysema, tracheobronchitis, headache, dizziness, fever, salivation tremors, paleness, muscle weakness, weight loss and loss of appetite, seizures, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 2,140 mg/kg LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Mouse - 4h - 850 mg/m ³

THIOUREA

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation.
- Skin	Harmful if absorbed through skin May cause skin irritation. May cause sensitization by skin contact.
- Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Acute toxicity (Ingestion)	Harmful if swallowed.
Chronic exposure effects / symptoms	Group 3: unclassifiable agent for its carcinogenicity (Group 3 IARC). Suspected toxic for reproduction for humans. If ingested: bone marrow depression (leukopenia, anemia, thrombocytopenia), goitrogenic effect. Prolonged exposure to this product may cause cancer and lead to reproductive abnormalities in humans. Skin sensitizer.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 1750 mg/kg LD50 Dermal - Rabbit - > 2800 mg/kg
CL50 (specify species and route of entry)	CL50 inhalation - Rat > 170 mg/m ³ - 4 h

SUMMARY

Acute exposure effects / Symptoms:	By exposure routes below.
Ingestion	To our knowledge, the product has not been fully evaluated
Inhalation	To our knowledge, the product has not been fully evaluated
Skin	To our knowledge, the product has not been fully evaluated
Eyes	To our knowledge, the product has not been fully evaluated
Chronic exposure effects / Symptoms:	To our knowledge, the product has not been fully evaluated
ETA Mix (Estimated Acute Toxicity)	LD50 Oral: > 5000 mg/kg - Rat LD50 Dermal: > 5000 mg/kg - Rabbit LC50 Inhalation 3725 mg/m ³ - 4h - Undefined species

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Sulfuric acid: Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 42 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 29 mg/l - 24 h
Persistence and degradability	The methods for determining the biological degradability are not applicable to inorganic substances.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility due to its solubility in water.
Other adverse effects	Data not available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	3265
UN Proper shipping name	LIQUIDE ORGANIQUE CORROSIF, ACIDE, N.S.A (acide sulfurique)
Transport hazard class(es)	8 Corrosive substances
Packing group	II
Limited quantity index	1L
ERAP Index	-
Special precautions	16

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Corrosive to metals-Category 1 Serious eye damage/eye irritation - Serious eye damage category 1 Carcinogenicity category 2 Reproductive toxicity category 2 Skin corrosion/irritation - Skin corrosion category 1
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SECTION 16 - OTHER INFORMATION

Further information

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. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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