Safety Data Sheet

SULPHURIC ACID 51-98%

SECTION 1. IDENTIFICATION

Product Identifier	Sulphuric Acid 51-98% Sulphuric Acid 70% Sulphuric Acid 78% Sulphuric Acid 93% Sulphuric Acid 93% NSF® - 60 Sulphuric Acid 98%
Other Means of Identification	Code: SUAC**** DSL: Sulphuric acid IUPAC: Sulfuric acid CAS: 7664-93-9 Oil of vitriol, dihydrogen sulphate, battery acid, spirit of sulphur, electrolyte acid
Product Use and Restrictions on Use	For commercial and industrial use. This product is certified to NSF / ANSI / CAN standard 60 for use in drinking water, see section 15 and the NSF website for further information.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7 Phone: 800.387.7503 Fax: 888.281.8109 www.cleartech.ca
24-Hour Emergency Phone	306.664.2522

SECTION 2. HAZARD IDENTIFICATION

Corrosive to metals	Category 1
Skin corrosion / irritation	Category 1A
Serious eye damage / eye irritation	Category 1
Carcinogenicity	Category 1A

Pictograms

Signal Word: Danger

Hazard Statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H350 May cause cancer (Inhalation)

Precautionary Statements

Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original packaging.
P260	Do not breathe vapours, fumes, or mists.
P264	Wash affected body parts thoroughly after handling.
P280	Wear protective gloves, protective clothing, eye protection, face protection.

Response

P301 P330 P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 P361 P353 P363	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.
P304 P340 P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.
P305 P351 P338 P310	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 or doctor.
P308 P313	IF exposed or concerned: Get medical advice or attention.
P390	Absorb spillage to prevent material damage.

Storage

P405	Store locked up.

Disposal

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

Hazards Not Otherwise Classified

Not available

Supplemental Information

Not available

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients:

Chemical name	*Common name(s)*	*CAS number*	*Concentration (w/w%)*
Sulphuric acid	Sulfuric acid	7664-93-9	51-98%

SECTION 4. FIRST-AID MEASURES

Description of necessary first-aid measures

Inhalation	Remove source of exposure or move person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor. If breathing has stopped, trained personnel should begin rescue breathing or if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth to mouth contact by using a barrier device. If exposed or concerned: Get medical advice / attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. If vomiting occurs naturally, lie on your side, in the recovery position. If exposed or concerned: Get medical advice / attention.
Skin contact	Avoid direct contact. Wear chemical protective clothing, if necessary. Take off immediately contaminated clothing, shoes and leather goods. Gently blot or brush away excess product. Rinse skin with lukewarm, gently flowing water / shower for 30 minutes. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before re-use or discard. If exposed or concerned: Get medical advice / attention.
Eye contact	Avoid direct contact. Wear chemical protective gloves, if necessary. Gently blot or brush chemical off the face. Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 30 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a POISON CENTER or doctor.

Most important symptoms and effects, both acute and delayed

Inhalation	Causes severe burns to the mouth and throat (mist). May cause cancer through long-term exposure to mists.
Ingestion	Causes burns to the mouth and throat.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Further information	For further information see Section 11 Toxicological Information.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media	Extinguish fire using extinguishing agents suitable for the surrounding fire.
Unsuitable extinguishing media	Water jets are not recommended in fires involving chemicals.
Specific hazards arising from the chemical	Reacts with many metals to liberate hydrogen gas that can form explosive mixtures. Highly corrosive sulphuric acid fumes and sulphur oxides may be released in the event of a fire.
Special protective equipment for fire-fighters	Wear NIOSH-approved self-contained breathing apparatus and chemical-protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment (See Section 08 Exposure Controls and Personal Protection). Stay upwind, ventilate area. Do not breathe vapours, fumes, or mists. Do not use material handling equipment with exposed metal surfaces.
Environmental Precautions	Prevent material from entering waterways, sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.
Methods and Materials for Containment and Cleaning Up	SMALL SPILLS: Stop or reduce leak if safe to do so. Clean up spill with non-reactive absorbent and place in suitable, covered, labeled containers. Flush area with water. Contaminated absorbent material may pose the same hazards as the spilled product. LARGE SPILLS: Contact fire and emergency services and supplier for advice.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling	An emergency shower and eyewash station should be available, tested, and be near to the product being handled in accordance with provincial regulations. Use sensible workplace hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Prevent the release of vapours, fumes, or mists into the workplace air. Inspect containers for damage or leaks before handling. If the original label is damaged or missing replace with a workplace label. Have suitable emergency equipment for fires, spills and leaks readily available. Never add water to a corrosive. Always add corrosives to water. When mixing with water, stir small amounts in slowly. Use cold water to prevent excessive heat generation.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, away from heat sources and incompatible materials. Always store in original labeled container. Keep containers tightly closed when not in use and when empty. Empty containers may contain hazardous residues. Protect label and keep it visible. Do not transfer to metal containers.
Incompatibilities	Bases, such as potassium hydroxide, sodium hydroxide, calcium hydroxide (slaked lime), ammonia, carbonates. Metals, such as aluminum, steel, and brass.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure limits

Component	Regulation	Type of listing	Value
Sulphuric Acid	ACGIH	TLV	0.2 mg/m³

Engineering controls

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

Protective equipment

The following are recommendations only. It is the responsibility of the employer / user to conduct a hazard assessment of the process in which this product being used and determine the proper engineering controls and PPE for their process. Additional regulatory and safety information should be sought from local authorities and, if needed, a professional industrial hygienist.

Eye and face protection	Where there is potential eye or face exposure, tightly fitting safety goggles and a face shield or a full-face respirator or similar protective equipment which protects the wearer's face and eyes are recommended. Contact lenses are not recommended; they may contribute to severe eye injury.

Hand and body protection	Disposable latex or nitrile gloves are recommended to prevent incidental contact. Butyl rubber, neoprene, or PVC skin protection is recommended for extended contact. Leather gloves are not recommended for chemical protection. Refer to manufacturer's specifications for breakthrough times and permeability information; note that breakthrough times and permeability vary with temperature, application and age of material. Continued use of contaminated safety gear or clothing is not recommended, wash before reuse or discard.
Respiratory protection	Where concentrations are above recommended limits, approved respiratory protection should be worn, ensure cartridges provide protection against this product. Depending on conditions such as temperature and handling method negative pressure masks may not provide suitable protection, and positive pressure respirators or SCBAs may be required. Reevaluate any respiratory protection used regularly, as their protective effects tend to degrade over time. In emergency conditions SCBAs are recommended. For NIOSH respirator recommendations for: Sulphuric Acid see section 16

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Colour	Clear
Odour	No odour
Odour threshold	Not available
pH	<1.0
Melting point / freezing point	Not available
Initial boiling point and boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability	Not applicable
Upper flammable limit	Not available
Lower flammable limit	Not available
Vapour pressure	0.001 mm Hg @ 20 °C
Vapour density	3.4 (Air = 1)
Relative density	Not applicable
Solubility	Miscible in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Specific gravity	~1.85 (93%)
Particle characteristics	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	May be corrosive to metals. Reacts with many metals to liberate hydrogen gas that can form explosive mixtures. Reacts with water to generate heat. Reacts violently with bases.
Stability	This product is stable if stored according to the recommendations in Section 07.
Possibility of hazardous reactions	Hazardous polymerization is not known to occur.
Conditions to avoid	Avoid contact with incompatible materials. Do not heat.
Incompatible materials	Bases, such as potassium hydroxide, sodium hydroxide, calcium hydroxide (slaked lime), ammonia, carbonates. Metals, such as aluminum, steel, and brass.
Hazardous decomposition products	Corrosive vapors

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity (LD50 / LC50 values)

Component	*Route*	*Species*	*Value*	*Exposure time*
Sulphuric Acid	Oral	Rat	2140 mg/kg	
Sulphuric Acid	Inhalation (mist)	Rat	0.375 mg/L	1-8 hours

Toxic Health Effect Summary

Chemical characteristics	Sulphuric acid is a strong acid, and moderate oxidizing agent.
Skin	Causes severe skin burns.
Ingestion	Causes burns to the mouth and throat.
Inhalation	Causes severe burns to the mouth and throat (mist). May cause cancer through long-term exposure to mists.Sulphuric acid can be classified toxic by inhalation, if the LC50 values are considered in isolation. However, there is no available evidence that Sulphuric acid causes systematic toxicity; all of its affects are localized and are therefore considered corrosive. This substance is already classified as corrosive, therefore also classifying it as toxic by inhalation would be inappropriate.
Eye contact	Causes serious eye damage.
Sensitization	This product and its components at their listed concentration have no known sensitizing effects.
Mutagenicity	This product and its components at their listed concentration have no known mutagenic effects.
Carcinogenicity	IARC has classified mists from strong inorganic acids as group 1, carcinogenic to humans.
Reproductive toxicity	This product and its components at their listed concentration have no known reproductive effects.
Specific organ toxicity	This product and its components at their listed concentration have no known effects on specific organs.
Aspiration hazard	Not available
Synergistic materials	Not available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	*Type*	*Species*	*Value*	*Exposure Time*
Sulphuric Acid 93%	LC50	Aesop shrimp	45 mg/L	48 hours
Sulphuric Acid 93%	LC50	Western mosquitofish	46 mg/L	96 hours

Biodegradability	The domestic substance list categorizes sulphuric acid as persistent.
Bioaccumulation	The domestic substance list categorizes sulphuric acid as non-bioaccumulative.
Mobility	This product is water soluble, is not predicted to adsorb to soil and may contaminate ground water.
Other adverse effects	Not available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste From Residues / Unused Products	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

SECTION 14. TRANSPORT INFORMATION

UN number	UN1830
UN proper shipping name and description	SULPHURIC ACID with more than 51% acid
Transport hazard class(es)	8
Packing group	II
Excepted quantities	1 L
Environmental hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special precautions	No special precautions

Transport in bulk	ERAP index: not available

MARPOL 73/78 and IBC Code:

Product name:	Sulphuric acid
Pollution category:	Y
Hazards:	the product is included in the Code because of both its safety and pollution hazards.
Ship type:	ship type 3
Tank type:	integral gravity tank
Tank vents:	open venting
Tank environmental control:	no special requirements under this Code
Electrical equipment:	Temperature classes
	Apparatus group
	Flash point non-flammable product
Gauging:	open gauging
Vapour detection:	no special requirements under this Code
Fire protection:	no special requirements under this Code
Emergency equipment	no special requirements under this Code
Specific and operational requirements	15.11, 15.16.2, 15.19.6

Additional information: Secure containers (full or empty) during shipment and ensure all caps, valves, or closures are secured in the closed position.

SECTION 15. REGULATORY INFORMATION

All components of this product appear on the domestic substance list.

NSF Certification: Sulphuric Acid 93% NSF® - 60 is certified to NSF / ANSI / CAN Standard 60 for pH adjustment and descaling at a maximum dosage of: 50 mg/L. NSF product use restrictions based on requirements obtained from the NSF website; consult NSF website for current requirements.

Sulphuric acid is listed in the National Pollutant Release Inventory (NPRI). Reporting threshold: 10 tonnes manufactured, processed or otherwise used.

SECTION 16. OTHER INFORMATION

Date of latest revision: November 19, 2025

Note: The responsibility to provide a safe workplace remains with the buyer / user. The buyer / 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 buyer / user to comply with all applicable laws and regulations regarding handling, using, reselling and shipping this product.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the RDC 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) *NIOSH Pocket Guide to Chemical Hazards;* U.S. Department of Health and Human Services, https://www.cdc.gov/niosh/npg/npgd0577.html
2) *WorkSafe BC E-Limit;* Workers' Compensation Foard of British Columbia, https://elimit.online.worksafebc.com/
3) *ECHA - Registered Substance Dossier;* European Chemicals Agency, https://echa.europa.eu/registration-dossier/-/registered-dossier/16122
4) *Transportation of Dangerous Goods Regulations;* Transport Canada, https://laws-lois.justice.gc.ca/eng/regulations/SOR-2001-286/index.html
5) Globally Harmonized System of Classification and Labeling of Chemicals (GHS) *Seventh revised edition*
6) International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) 2007 Edition
7) The ACS Style Guide