

Safety Data Sheet



Sulphuric Acid, 1M

Section 1 Product Description

Product Name: Sulphuric Acid, 1M
Recommended Use: Science education applications
Synonyms: Oil of Vitriol, Sulphuric Acid, Sulfuric Acid 2N
Supplier: C2A Sales & Supplies (Barbados) Ltd.
#3 Canewood Road, Jackson, St. Michael,
Barbados Tel: (246) 426-1256

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;



DANGER

Causes severe skin burns and eye damage. Causes serious eye damage. May cause cancer. Harmful to aquatic life..

GHS Classification:

Skin Corrosion/Irritation Category 1, Serious Eye Damage/Eye Irritation Category 1, Carcinogenicity Category 1A, Hazardous to the aquatic environment - Acute Category 3.

Other Safety Precautions: IF exposed or concerned: Get medical advice/attention.

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Water	7732-18-5	94.8
Sulphuric Acid, Concentrated 18M	7664-93-9	5.2

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Section 5 Firefighting Procedures

Extinguishing Media: Use dry chemical, CO2 or appropriate foam..
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products: Sulfur containing gases

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Section 6

Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective Equipment needs must be evaluated based on information provided on this sheet and the Special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up:

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Do not allow the spilled product to enter public drainage system or open waterways

Section 7

Handling and Storage

Handling:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Storage:

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

Storage Code:

White - Corrosive. Separate acids from bases; separate oxidizer acids from organic acids.

Section 8

Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
Sulphuric Acid Concentrated. 18M	0.2 mg/m3 TWA (thoracic fraction)	N/A	1 mg/m3 TWA	N/A
Control Parameters Engineering Measures:	Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.			
Personal Protective Equipment (PPE):	Lab coat, apron, eye wash, safety shower.			
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms			
Respirator Type(s):	None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection			
Eye Protection:	Wear chemical splash goggles when handling this product. Have an eye wash station available.			
Skin Protection:	Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work..			
Gloves:	Natural latex, Butyl rubber, Nitrile, Neoprene			

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Section 9

Physical Data

Formula: See Section 3
Molecular Weight: 98.07 (Sulfuric Acid)
Appearance: Colorless Liquid
Odor: None
Odor Threshold: No data available
pH: -0
Melting Point: Estimated > 100 C 100 C
Boiling Point: No data available
Flash Point: No data available
Flammable Limits in Air: No data available

Vapor Pressure: No data available
Evaporation Rate (BuAc=1): No data available
Vapor Density (Air=1): No data available
Specific Gravity: >1
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: No data available

Section 10

Reactivity Data

Reactivity: Moderately reactive - See below.
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Contact with water Reaction with water is exothermic..
Incompatible Materials: Water-reactive materials, Water, Organic Compounds, Strong reducing agents, Acetaldehydes, Amines
Hazardous Decomposition Products: Sulfur containing gases
Hazardous Polymerization: Will not occur

Section 11

Toxicity Data

Routes of Entry: Inhalation.
Symptoms (Acute): Respiratory Irritation, Dermatitis, Coffee Ground Emesis
Delayed Effects: Dental Erosion
Respiratory Irritation

Acute Toxicity:
Chemical Name
Water

CAS Number
7732-18-5

Oral LD50
Oral LD50 Rat
90000 mg/kg

Dermal LD50

Inhalation LC50

Sulfuric Acid,
Concentrated 18M

7664-93-9

Oral LD50 Rabbit
2140 mg/kg

INHALATION
LC50 Mouse 320
MG/M3
INHALATION
LC50 Rat 510
MG/M3 2H
INHALATION
LC50 Mouse 320
MG/M3 2H
INHALATION
LC50 Rat 510
MG/M3
INHALATION
LC50 GUINEA PIG
18 MG/M3

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Carcinogenicity:
Chemical NameSulfuric Acid,
Concentrated 18M**CAS Number**
7664-93-9**IARC**
Not listed**NTP**
Not listed**OSHA**
Listed**Teratogenicity:** No evidence of a teratogenic effect (birth defect).**Sensitization:** No evidence of a sensitization effect.**Reproductive:** No evidence of negative reproductive effects.**Target Organ Effects:****Acute:** No information available**Chronic:** Lungs

Section 12

Ecological Data

Overview: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.

Mobility: This material is expected to have high mobility in soil. It absorbs weakly to most soil types.

Persistence: Biodegradation, adsorption to sediment, and bioconcentration to aquatic organisms should not be significant.

Bioaccumulation: Bioconcentration is not expected to occur.

Degradability: No data

Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Water		7732-18-5 No data available
Sulphuric Acid Conc. 18M	7664-93-9	96 HR LC50 BRACHYDANIO RERIO > 500 MG/L [STATIC] 24 HR EC50 DAPHNIA MAGNA 29 MG/L

Section 13

Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Waste Disposal Code(s): If discarded, this product is considered a RCRA corrosive waste, D002.

Section 14

Transport Information

Ground - DOT Proper Shipping Name:UN2796
Sulphuric Acid
Class 8
P.G. II**Air - IATA Proper Shipping Name:**UN2796
Sulphuric Acid
Class 8
P.G. II

Section 15

Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Sulfuric Acid, Concentrated 18M	7664-93-9	Sulfuric acid acid	1000 lb RQ	1000 lb final RQ; (454 kg)	1000 lb TPQ	1000 lb TPQo

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Section 16

Additional Information

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. C2A Sales and Supplies (Barbados) Ltd makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
		OSHA	Occupational Safety and Health Administration
CAS	Chemical Abstract Service Number	PEL	Permissible Exposure Limit
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	ppm	Parts per million
		RCRA	Resource Conservation and Recovery Act
DOT	U.S. Department of Transportation	SARA	Superfund Amendments and Reauthorization Act
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
N/A	Not Available	TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health