

# Safety Data Sheet

## Sulfuric Acid, Concentrated 18M



### Section 1

### Product Description

**Product Name:** Sulfuric Acid, Concentrated 18M  
**Recommended Use:** Science education applications  
**Synonyms:** Oil of Vitriol; , Hydrogen Sulfate  
**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. Toxic if inhaled. May cause cancer. Harmful to aquatic life.

**GHS Classification:**

Skin Corrosion/Irritation Category 1A, Serious Eye Damage/Eye Irritation Category 1, Carcinogenicity Category 1A, Acute Toxicity - Inhalation Dust / Mist Category 3, 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>
Sulfuric Acid, Concentrated 18M	7664-93-9	100

### 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:** Non-combustible but contact with water or moisture may generate sufficient heat to ignite combustible materials Contact with water produces sulfuric acid.  
**Hazardous Combustion Products:** Sulfur Oxides

# Safety Data Sheet

## Section 6 Spill or Leak Procedures

### Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

### 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. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Never add water to this product.

### Storage:

Store in a well-ventilated place. Keep container tightly closed. 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

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Sulfuric Acid, Concentrated 18M	0.2 mg/m <sup>3</sup> TWA (thoracic fraction)	N/A	1 mg/m <sup>3</sup> TWA	N/A

### Control Parameters

#### Engineering Measures:

Local exhaust ventilation, process enclosures, or other engineering controls are necessary when handling or using this product to avoid overexposure.

#### Personal Protective Equipment (PPE): Respiratory Protection:

Lab coat, apron, eye wash, safety shower.  
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): Eye Protection:

NIOSH approved air purifying respirator with acid gas cartridge and dust/mist filter  
Wear chemical splash goggles when handling this product. Additionally, wear a face shield when the possibility of splashing of liquid exists. 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:

Nitrile - Extra Thick (8 mm)

## Section 9 Physical Data

**Formula:** H<sub>2</sub>SO<sub>4</sub>  
**Molecular Weight:** 98.08  
**Appearance:** Colorless, Oily Liquid  
**Odor:** Strong Pungent  
**Odor Threshold:** No data available  
**pH:** -1.26  
**Melting Point:** 10 C  
**Boiling Point:** 280 C  
**Flash Point:** No data available  
**Flammable Limits in Air:** No data available

**Vapor Pressure:** 0.7 hPa at 25°C  
**Evaporation Rate (BuAc=1):** No data available  
**Vapor Density (Air=1):** No data available  
**Specific Gravity:** 1.834-1.836 at 20°C  
**Solubility in Water:** Soluble  
**Log Pow (calculated):** No data available  
**Autoignition Temperature:** No data available  
**Decomposition Temperature:** No data available  
**Viscosity:** 0.24  
**Percent Volatile by Volume:** No data available

## Section 10 Reactivity Data

# Safety Data Sheet

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

## Section 11 Toxicity Data

**Routes of Entry:** Inhalation.  
**Symptoms (Acute):** Respiratory disorders  
**Delayed Effects:** Dental Erosion

### Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Sulfuric Acid, Concentrated 18M	7664-93-9	Oral LD50 Rat 2140 mg/kg	Not determined	INHALATION LC50 GUINEA PIG 18 MG/M3 INHALATION LC50 Rat 510 MG/M3 INHALATION LC50 Mouse 320 MG/M3 2H INHALATION LC50 Rat 510 MG/M3 2H INHALATION LC50 Mouse 320 MG/M3

### Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Sulfuric Acid, Concentrated 18M	7664-93-9	Not listed	Not listed	Listed

### Chronic Effects:

**Mutagenicity:** No evidence of a mutagenic effect.  
**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:** Respiratory system

## Section 12 Ecological Data

**Overview:** Slight ecological hazard. In high concentrations, 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
Sulfuric Acid, Concentrated 18M	7664-93-9	96 HR LC50 BRACHYDANIO RERIO > 500 MG/L [STATIC] 24 HR EC50 DAPHNIA MAGNA 29 MG/L

# Safety Data Sheet

## 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:**  
UN1830Sulfuric AcidClass 8P.G. II

**Air - IATA Proper Shipping Name:**  
UN1830Sulfuric AcidClass 8P.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	1000 lb RQ	1000 lb final RQ; 454 kg final RQ	1000 lb TPQ	No

**California Prop 65:**



WARNING: Cancer – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## Section 16

## Additional Information

**Revised:** 08/21/2024

**Replaces:** 03/15/2024

**Printed:** 01-17-2025

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. C2A Sales & 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
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health