



**MATERIAL SAFETY DATA SHEET**

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MSDS No. 9709206 9709208 9709209 9717809  
Effective Date: December 1, 2005

**SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE**

Product	Sulfuric Acid, Concentrate	416-984-3000										
Chemical Synonyms	N/A	NFPA										
Formula	H <sub>2</sub> SO <sub>4</sub>	WHMIS <table border="1"><tr><td>Health</td><td>3</td></tr><tr><td>Flammability</td><td>0</td></tr><tr><td>Reactivity</td><td>3</td></tr></table>	Health	3	Flammability	0	Reactivity	3				
Health	3											
Flammability	0											
Reactivity	3											
CAS No.	7664-93-9	HAZARD RATING <table border="1"><tr><td>Minimal</td><td>Slight</td><td>Moderate</td><td>Serious</td><td>Severe</td></tr><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td></tr></table>	Minimal	Slight	Moderate	Serious	Severe	0	1	2	3	4
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**SECTION II DANGEROUS INGREDIENTS**

Name	%	TLV Units
Sulfuric acid	93 - 98%	TWA: 1 mg/m <sup>3</sup> STEL: 3mg/m <sup>3</sup>
<b>DANGER! CORROSIVE!</b>		

**SECTION III PHYSICAL DATA**

Melting Point (°C)	< 11°C	Specific Gravity (H <sub>2</sub> O = 1)	1.16 - 1.84
Boiling Point (°C)	~ 275 - 325°C	Percent Volatile by Volume (%)	0 - 20 water by weight
Vapor Pressure (mm Hg)	Variable.	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	N/A		
Solubility in Water	Complete.		
Appearance & Odor	Clear, colorless liquid; very slight odor.		

**SECTION IV FIRE AND EXPLOSION HAZARD DATA**

Flash point	Non-flammable.	Flammable Limits in Air % by Volume	N/A	Lower	Upper
Firefighting Procedures	Use dry chemical, CO <sub>2</sub> , alcohol foam, or water spray. In fire conditions, fire-fighters should wear an appropriate mask or a self-containing breathing apparatus.				

Flammability and Explosion Hazards	See Section V.
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**TDG Class 8 Corrosive liquid. UN1830 Class 9.2 Environmentally hazardous material.**

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. For laboratory use only. Not for drug, food or household use. Keep out of reach of children. Printed on recycled paper.

*Sargent Welch HS Flam Cat.*

**SECTION V REACTIVITY DATA** SS1118

Chemical Stability	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If no, under what conditions? Avoid temperature above 250°C and water.
Incompatible with Other products	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Alkalies, amines, anhydrides, combustibles, organics, oxidizers, powdered metals.
Hazardous Decomposition Products	Sulfur trioxide and or dioxide fumes. Reacts with metals to form hydrogen gas.	
Reactive under what conditions	Extremely reactive or incompatible with reducing agents, organic materials, metals, alkalies, moisture. Very slightly to slightly reactive with oxidizing agents. Sulfuric acid absorbs moisture from the air.	

**SECTION VI TOXICOLOGICAL PROPERTIES**

Route of Entry	Ingestion. Skin contact. Inhalation.
TLV	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Toxicity for animals	N/A
Chronic effects on humans	The substance is toxic to blood, kidneys, liver. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Target organs: Respiratory system, eyes, skin, teeth.
Acute effects on humans	Harmful or fatal if swallowed or inhaled. Causes severe burns to skin and eyes.

**SECTION VII PREVENTIVE MEASURES**

Waste Disposal	Discharge, treatment, or disposal may be subject to local laws. Consult your local or regional authorities.
Storage	May corrode metallic surfaces. Corrosive materials should be stored in a separate safety storage cabinet or room.
Precautions	Keep container tightly closed and in a cool place. Causes burns. Avoid contact with skin and eyes. Do not ingest. Do not inhale vapors or spray. Keep away from incompatible materials. Sulfuric acid absorbs moisture from the air.
Spill or leak	Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate. Wash spill area with soap and water.
Protective Clothing	Splash goggles, lab coat, vapor respirator, gloves.

**SECTION VIII FIRST AID MEASURES**

Specific first aid measures	Ingestion: Call physician or Poison Control Center immediately. Induce vomiting only if advised by the appropriate medical personnel. Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention. Skin contact: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Inhalation: Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Allow victim to rest in a well ventilated area. Seek immediate medical attention.
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**SECTION IX PREPARATION OF THE MSDS**

Rev. No.	3	Date	December 1, 2005	Approved	Michael Raszeja
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