

Material Safety Data Sheet

EMERGENCY NUMBERS:

(USA) CHEMTREC : 1(800) 424-9300 (24hrs) (CAN) CANUTEC : 1(613) 996-6666 (24hrs) (USA) Anachemia : 1(518) 297-4444 (CAN) Anachemia : 1(514) 489-5711

WHMIS	Protective Clothing	TDG Road/Rail
WHMIS CLASS: E		Not controlled under TDG (Canada).
		PIN: Not applicable. PG: Not applicable.

Section I. Product Identification and Uses			
Product name	SULFURIC ACID 0.1-1% W/V	CI#	Not available.
Chemical formula	H2SO4 + H2O	CAS#	7664-93-9
Synonyms	R-5570I, R-5560 (0.1-<1%), R-5570F, R-5570II,	Code	R-5570I
	88508	Formula weight	Not applicable.
Supplier	Anachemia Canada. 255 Norman. Lachine (Montreal), Que H8R 1A3	Supersedes	
Material uses	For laboratory use only.		

Section II. Ingredients			
Name	CAS #	%	TLV
1) SULFURIC ACID	7664-93-9	0.1-<1	Exposure limits: ACGIH TWA 0.2 mg/m3
2) WATER	7732-18-5	Balance	Not established by ACGIH
Toxicity values of the SULFURIC A	ACID:		

Toxicity values of the hazardous ingredients

ORAL (LD50): Acute: 2140 mg/kg (Rat). VAPOR (LC50): Acute: 18 mg/m3 (Guinea pig). 320 mg/m3 (Mouse) (2 hour(s)). VAPOR (LC50): Acute: 510 mg/m3 (Rat) (2 hour(s)).

Section III. Physical Data		SULFURIC ACID 0.1-1% W/V	page 2/4
Physical state and appearance / Odor	Colorless to slight yellow liquid. Odorless.		
pH (1% soln/water)	<7		
Odor threshold	Not available.		
Percent volatile	Not available.		
Freezing point	Not available.		
Boiling point	Not available.		
Specific gravity	Not available.		
Vapor density	Not available.		
Vapor pressure	Not available.		
Water/oil dist. coeff.	Not available.		
Evaporation rate	Not available.		
Solubility	Miscible in water.		

Section IV. Fire and Explosion Data

Flash point	Not applicable.
Flammable limits	Not applicable.
Auto-ignition temperature	Not applicable.
Fire degradation products	Oxides of sulfur (SO2, SO3).
Fire extinguishing procedures	Use extinguishing media appropriate to surrounding fire conditions. Wear adequate personal protection to prevent contact with material or its combustion products. Self contained breathing apparatus with a full facepiece operated in a pressure demand or other positive pressure mode.
Fire and Explosion Hazards	Flammable hydrogen gas may be produced on contact with metals. The product is not sensitive to impact. The product is not sensitive to static discharge. Emits toxic fumes under fire conditions.

Section V. Toxicological Properties				
Routes of entry	Inhalation and ingestion. Skin contact. Eye contact.			
Effects of Acute Exposure	May be fatal by ingestion, inhalation or skin absorption. Corrosive. Target organs: respiratory system, eyes, skin, teeth. 15 mg/m3 (SULFURIC ACID) is immediately dangerous to life or health			
Еуе	Corrosive! Liquid contact can cause corneal burns and conjunctivitis. Blindness may result, or severe or permanent injury. Mist contact may irritate or burn. IRRITATION: EYE-RABBIT 250 ug SEVERE.			
Skin	Can cause severe burns and distruction of tissue. May cause destruction of the dermis with impairment of the skin at site of contact to regenerate. Skin injury reportedly slow to heal.			
Inhalation	Highly toxic by inhalation of fumes or acid mist. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract. Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, laryngitis, dyspnea, bronchospasms, and lung irritation. Can cause lung damage.			
Ingestion	Burns in mouth, pharynx and gastrointestinal tract. May cause edema of the larynx, hematemesis, diarrhea, anuria, oesophagus and stomach perforation, and death.			

Section V. Toxicological Properties		SULFURIC ACID 0.1-1% W/V	page 3/4
Effects of Chronic Overexposure	Erosion of the teeth, lesions of the skin, tracheobronchitis, mo Overall IARC evaluation of carcinogenic risk: Group 1 (strong-ii effects: Not available. Teratogenic effects: Not available. T available. To the best of our knowledge the chronic toxicity of th	uth inflammation, conjunctivitis, gastritis norganic-acid mists containing sulfuric ac oxicity of the product to the reproductiv is substance has not been fully investigate	s, emphysema. id). Mutagenic e system: Not ed.
Section VI. F	irst Aid Measures		
Eye contact	Speed is essential. IMMEDIATELY flush eyes with copious c apart to ensure flushing of the entire surface. Seek immedia medical attention is not immediatly available.	uantities of water for at least 20 minutes te medical attention. Continue flushing	holding lids with water if
Skin contact	Speed is essential. Immediately flush skin with plenty of wate clothing and shoes. Seek immediate medical attention. We contaminated leather articles such as shoes and belt.	for at least 20 minutes while removing c ash contaminated clothing before reusi	contaminated ng. Discard
Inhalation	Remove patient to fresh air. Administer approved oxygen suppl or CPR if breathing has ceased. Seek immediate medical attent	y if breathing is difficult. Administer artifici	al respiration
Ingestion	DO NOT induce vomiting. If conscious, wash out mouth with w water to dilute. Seek immediate medical attention. Never give person.	ater. Have conscious person drink sever anything by mouth to an unconscious o	al glasses of or convulsing

Section VII. Reactivity Data

Stability	Stable. Conditions to avoid: High temperatures, sparks, open flames and all other sources of ignition, contamination.
Hazardous decomp. products	Sulfur oxides (SO2, SO3)
Incompatibility	Reacts with most common metals to produce hydrogen. Nitro compounds, nitrates, carbides, phosphorus, iodides, picrates, fulminates, dienes, alcohols (when heated): cause explosion. Cyclopentadiene, cyclopentanone oxime, nitroaryl amines, hexalithium disilicide, phosphorus(III) oxide, oxidizing agents, such as chlorates, halogens, permanganates: cause fire and/or explosions. Allyl compounds and aldehydes: undergo violent polymerization. Alkalies, amines, hydrated salts, carboxylic acid anhydrides, nitriles, olefinic organics, glycols, aqueous acids: cause strong exothermic reactions. Carbonates, cyanides, sulfides, sulfites, metals such as copper, tin, lead, zinc, aluminum: yield toxic gases. Organic materials, reducing agents, combustible materials, hydrogen peroxide, azides, alkali hydrides, nitromethane.
Reaction Products	Hydrogen is generated by the action of the acid on most metals. Hazardous polymerization will not occur.

Section VIII. F	Preventive Measures	SULFURIC ACID 0.1-1% W/V	page 4/4	
Protective Clothing in case of spill and leak	Wear self-contained breathing apparatus, rubber b	oots and heavy rubber gloves. Full suit.		
Spill and leak	Evacuate and ventilate the area. Dilute small spills or leaks cautiously with plenty of water. Cover with soda ash or lime. Adequate ventilation is required for soda ash due to release of carbon dioxide gas. Major spills must be handled by a predetermined plan. Diking with soda ash is recommended. Ventilate area and wash spill site after material pick up is complete. DO NOT empty into drains. DO NOT touch spilled material. Avoid contact with a combustible material (wood, paper, oil, clothing). DO NOT get water inside container. DO NOT touch damaged container or spilled material. Spills of sulfuric acid must be promptly removed.			
Waste disposal	According to all applicable regulations. Harmful to aquatic life. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.			
Storage and Handling	If stored in metal containers, vapors can contain ex sparks, and flame. Store in a well ventilated area. Sto the container. Do not wash down the drain. Do not to suitable respiratory equipment. Keep away from dire material. Keep container tightly closed and dry. Mai a hazardous residue. Handle and open container wi with a combustible material (wood, paper, oil, clothin get in eyes, on skin, or on clothing. Wash well after allow smoking and food consumption while handling.	blosive hydrogen gas. Store in a cool place away fro ore away from incompatible materials. Do not add any preathe gas/fumes/vapor/spray. In case of insufficient ect sunlight or strong incandescent light. Keep away hipulate under an adequate fume hood. Empty contai th care. Take off immediately all contaminated clothir g). This product must be manipulated by qualified p use. In accordance with good storage and handling Wear suitable protective clothing.	or heated areas, or other material to e ventilation, wear from combustible ners may contain ng. Avoid contact personnel. Do not practices. Do not	
Section IX. P	rotective Measures			
Protective clothing	Face shield and splash goggles. Impervious acid-resistant clothing. Sufficient to protect skin. A OSHA/MSHA jointly If more than TLV, do not breathe vapor. Wear self-cont emergency shower available. Ensure that eyewash station	gloves and apron (preferably rubber), coveralls, and/or other approved respirator is advised in the absence of proper envir ained breathing apparatus. Do not wear contact lenses. M and safety shower is proximal to the work-station location.	resistant protective onmental controls. lake eye bath and	
Engineering controls	Use in a chemical fume hood to keep airborne lev Do not use in unventilated spaces.	els below recommended exposure limits. Use adequ	uate ventilation.	
Section X. Of	ther Information			
Special Precautions or comments	 Corrosive! Do not breathe vapor. Avoid all contac repeated exposure. Use in a chemical fume hood. Handle and open container with care. Container s qualified person. RTECS NO: WS5600000 (Sulfuric acid). 	t with the product. Avoid prolonged or Keep away from heat, sparks and flame. hould be opened only by a technically	IFPA	
Prepared by MSDS D	epartment/Département de F.S	Validated 10-Sep-2013		
ADDRESSON Y MARINE ADDRESSON ADDRESS ADDRESSON ADDRESS A				
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