Section E	- Reagent MSDS'				
HAZTE SYSTEN	Material	Material Safety Data Sheet			
INC.	$\langle 3 \times 2 \rangle$	Health Hazard Fire Hazard	$\frac{3}{0}$		
		Reactivity	2	PPE (See Section 15)	
Section 1. Chen	nical Product and Company Ide	entification		Page 1 of 4	
Trade Name	Concentrated Sulfu	ric Acid	Part #	RE2030	
			CAS #	7664-93-9	
Manufacturer	HazTech Systems, Inc.		RTECS	WS5600000	
	PO Box 929 Mariposa, CA 95338		TSCA	TSCA 8(b) inventory: Sulfuric acid	
Commercial Name	Sulfuric Acid		CI #		
Synonyms	Hydrogen sulfate		In case of emergency contact CHEMTREC		
Chemical Formula	H2SO4			at 800-424-9300	
Supplier	Spectrum Chemical Mfg. Co 14422 S. San Pedro St. Gardena, CA 90248			HazTech Systems, Inc. 800-543-5487 Spectrum Chemical Mfg. Corp. 310-516-8000	

Section 2. Composition and Information on Ingredients

		Expo	sure Limits		
Name	CAS #	TWA (mg/m3)	STEL C	EIL (mg/m3) % by	Weight
Sulfuric acid	7664-93-9	1	3	100	%

Toxicological Sulfuric acid:

ORAL (LD50): Acute: 2140 mg/kg (Rat). VAPOR (LC50): Acute: 255 ppm 4 hours (Rat). Data on

Ingredients

Section 3. Hazards Identification

Potential Acute Health Effects	Extremely hazardous in case of skin contact (corrosive), of eye contact (irritant), of ingestion. Very hazardous in case of skin contact (irritant, permeator). Hazardous in case of inhalation. Slightly hazardous in case of skin contact (sensitizer). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce
	severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe
	over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching.
Potential Chronic	Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available.
	TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.
	The substance is toxic to lungs, mucous membranes.
	Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.
	Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Concentrated Sulfuric Acid Page 2 of		
Section 4. First	Aid Measures	
Eye Contact	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.	
Skin Contact	If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. If the chemical got on the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Cold water may be used. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.	
Inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.	
Ingestion	Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.	

Section 5. Fire and Explosion	Section 5. Fire and Explosion Data			
Flammability	Non-flammable.			
Auto-Ignition Temperature	Not applicable.			
Flash Point	Not applicable.			
Flammable Limits	Not applicable.			
Products of Combustion	Not applicable.			
Fire Hazards in Presence of Various Substances	Not applicable.			
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.			
Fire Fighting Media and Instructions	Not applicable.			
Special Remarks on Fire Hazards	Not applicable.			
Section 6. Accidental Release Measures				
Small SpillDilute 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.				
Section 7. Handling and Storage				
Precautions If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes				
Storage Keep in HazCat Kit.				
Section 8. Exposure Controls/Personal Protection				
Engineering Controls Use in a well ventilated area.				
Personal Protection Gloves and goggles.				



Concentrated Sulfuric Acid

Page 3 of 4

L					
Section 9. Physical and C	hemical Properties				
Physical State and Appearance	Liquid. (Thick oily lie	quid.)	Volatility	Not available	
Molecular Weight	ht 98.08 g/mole		Odor Threshold	Not available	
pH (1% Solution in Water)	1 (Acidic)		Water/Oil Dist. Coe	eff. Not available	
Boiling Point	290°C (554°F)		Ionicity (in Water)	Not available	
Melting Point	10.49°C (50.9°F)		Dispersion Propertie	es Not available	
Critical Temperature	Not available		Solubility	Easily soluble in water. Insoluble in methanol, diethyl ether.	
Specific Gravity	1.84 (Water = 1)		Odor	Sulfurous. (Slight.)	
Vapor Pressure	0.01 mm of Hg (@ 20	0°C)	Taste	Toxic by ingestion. (Strong.)	
Vapor Density	3.4 (Air = 1)		Color	Colorless.	
Section 10. Stability and	d Reactivity Data				
Stability	Product is stable.		Corrosivity	Extremely corrosive in presence of copper. Highly corrosive in presence of steel, of	
Instability Temperature	Not available.			aluminum, of zinc.	
Conditions of Instability	Not available.		Special Remarks on Corrosivity	Reacts violently with water especially when water is added to the product.	
Incompatibility with Highly reactive with n Various Substances moisture. Reactive wi materials, acids.			Polymerization	Will not polymerize.	
Section 11. Toxicological	Information				
Route of Entry		Dermal contac	t. Eye contact. Inhalati	ion. Ingestion.Not available.	
Toxicity to Animals		Acute oral toxicity (LD50): 2140 mg/kg (Rat). Acute toxicity of the vapor (LC50): 255 ppm 4 hours (Rat).			
Chronic Effects on Humans		The substance is toxic to lungs, mucous membranes.			
Other Toxic Effects on Humans		The substance is not toxic to blood, kidneys, liver. Extremely hazardous in case of skin contact (corrosive), of ingestion. Very hazardous in case of skin contact (irritant, permeator). Hazardous in case of inhalation.			
Special Remarks on Toxicity to Animals Special Remarks on Chronic Effects on Humans Special Remarks on Other Toxic Effects on Humans		Slightly hazardous in case of skin contact (sensitizer). Not available. Not available.			
Section 12. Ecological Inf	ormation				
Ecotoxicity		Not available.			
BOD5 and COD		Not available.			
Products of Biodegradation			Possibly hazardous short term degradation products are not likely. However,		
Toxicity of the Products of Biodegradation		long term degradation products may arise. The products of degradation are less toxic than the product itself.			
Special Remarks on the Products	Not available.				

Concentrated Sulfuric Acid

Page 4 of 4

Section 12 Dismosel	Considerations		
Section 13. Disposal (
Waste Disposal	Recycle to process, if possible. Consult your local or regional authorities.		
Section 14. Transport	Information		
DOT Classification CL	CLASS 8: Corrosive liquid.		
Identification Sul	Sulfuric acid, 8, UN1830, II		
Special Provisions No for Transport	Not applicable.		
Section 15. Other Reg	gulatory Information and Pictograms		
Federal and State Regulation	ns TSCA 8(b) inventory: Sulfuric acid		
California Proposition 65 V	Varnings		
Other Regulation	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).		
Other classifications	WHMIS (Canada) CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXI CLASS D-2A: Material causing other toxic effects (VERY TOXIC). CLASS E: Corrosive liquid.		
	DSCL (EEC) R35- Causes severe burns.		
Section 16. Other Inf	ormation		
Part Number(s)	RE2030		
References	Not available.		
Other Special Consideration	ns Not available.		
Validated by	R. Turkington		
Verified by	R. Turkington		
Call 1-800-543-5487			

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Haztech Systems, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.