Section E - Reagent MSDS'					
HAZTECH SYSTEMS, <sup>™</sup> Material Safety Data Sheet					
	NFPA	HMISHealth Hazard2Fire Hazard0			
		Reactivity	0	PPE (See Section 15)	
Section 1. Chemical Product and Company Identification					
			Code	RE2138	
Trade Name	DMSO Test		CAS #	Mixture	
Manufacturer	HazTech Systems, Inc. P.O. Box 929		RTECS	Not applicable.	
	Mariposa, CA 95338		TSCA	TSCA8(b) inventory: Chromic acid; Water.	
Commercial Name Not available					
Synonym	Not available.		CI #	Not Available	
Chemical Name	Not applicable.		In case of emergency contact CHEMTREC		
Chemical Family	Not Available		(24 hours) at 800-424-9300		
Chemical Formula	Not applicable.		HazTech Systems, Inc. 800-337-2497 Spectrum Chemical Mfg. Corp. 310-516-8000		
Supplier	Spectrum Chemical Mfg 14422 S. San Pedro St. Gardena, CA 90248	. Corp.			

## Section 2. Composition and Information on Ingredients

	_	Exposure Limits			
Name	CAS #	TWA (mg/m <sup>3</sup> )	STEL	CEIL (mg/m3)	% by Weight
1) Chromic acid 2) Water	7738-94-5 7732-18-5	1		1	10 90
Toxicological Data	Chromic acid:	A	[D-4] 107 /l	[] [ ] [ ] ]	

on Ingredients ORAL (LD50) Acute: 80 mg/kg [Rat]. 127 mg/kg [Mouse].

## Section 3. Hazards Identification

Potential Acute Health Effects	Very hazardous in case of skin contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive), of eye contact (irritant), of inhalation. 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.
Potential Chronic Health Effects	Non-corrosive for skin. Non-irritant for skin. Non-sensitizer for skin. Non-permeator by skin. Non-irritating to the eyes. Non-hazardous in case of ingestion. Non-hazardous in case of inhalation. CARCINOGENIC EFFECTS: Classified A1 (confirmed for human.) by ACGIH, + (PROVEN) by OSHA 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 organ 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.

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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 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. Place the victim under a deluge shower. 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. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. If irritation persists, seek medical attention. Wash the contaminated clothing before reusing.			
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with a anti-bacterial cream. Seek immediate medical attention.			
Inhalation	Allow the victim to rest in a well ventilated area. Seek medical attention.			
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt, or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. 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.			
Serious Ingestion	Not available.			
Section 5. Fire an	d Explosion Data			
Flammability	Non-flammable.			
Auto-Ignition Tempera	ture Not applicable.			
Flash Point	Not applicable.			
Flammable Limits	Not applicable.			
Products of Combustic	n Not available.			
Fire Hazards in Presen	ce Not applicable.			

Explosion Hazards in Presence 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.

of Various Substances

Fire Fighting Media
Not applicable.

and Instructions
Not available.

Special Remarks on
Special Remarks on

Special Remarks on
Spec

Small Spill Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

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Large Spill Corrosive liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.					
Section 7. Handlin	0	<u> </u>			
this pro-	Precautions Keep locked up. Keep container dry. Do not ingest. Do not breathe gas/fumes/vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or label. Avoid contact with skin and eyes.				
Storage Corrosiv	e materia	ls should be stored in a separate stor	age cabinet or room.		
Section 8. Exposu	ire Conti	rols/Personal Protection			
Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value(TLV). Ensure that eyewash stations and safety showers are proximal to the work-station location.					
Personal Protection	Face shie boots.	eld. Full suit. Vapor respirator. Be	sure to use an approved/cer	tified respirator or equivalent. Gloves.	
Personal Protection in Case of a Large Spill Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.					
Exposure Limits		IIC ACID: local authorities for acceptable expo		(mg/m <sup>3</sup> ) from ACGIH(TLV) 1 CEIL: 1 (mg/m <sup>3</sup> ) from OSHA (PEL)	
Section 9. Physica	al and Cl	1			
Physical State and App	earance	Liquid.	Volatility	Not available.	
Molecular Weight		Not applicable.	Odor Threshold	Not available.	
pH (1% Solution in Water)		Neutral	Water/Oil Dist. Coeff.	Not available.	
Boiling Point		The lowest known value is: 100 <sup>0</sup> C (212 <sup>0</sup> F) (Water)	Ionicity (in Water)	Not available.	
Melting Point		Not available.	Dispersion Properties	See solubility in water.	
Critical Temperature		Not available.	Solubility	Easily soluble in cold water.	
Specific Gravity		Weighted average 1.07 (Water=1)	Odor	Not available.	
Vapor Pressure		The highest know value is:	Taste	Not available.	
		17.535 mm of Hg ( $@20^{\circ}$ C	Color	Not available.	
Vapor Density		The highest known value is: 0.62 (Air=1) (Water)			
Section 10. Stability and Reactivity Data					
Stability		The product is stable.			
Instability Temperature		Not available.			
Conditions of Instability		Not available.			
Incompatibility with Va Substances	arious	Not available.			
Corrosivity		Non-corrosive in presence of glass			

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Special Remarks on No Reactivity	t available.			
Special Remarks on No Corrosivity	t available.			
Polymerization No	).			
Section 11. Toxicological I	Information			
Route of Entry	Eye contact. Inhala	ation. Ingestion.		
Toxicity to Animals	Acute oral toxicity	(LD50): 800 mg/kg (Rat) (Calculated value for the mixture).		
		Classified A1 (Confirmed for human.) by ACGIH + (PROVEN) by OSHA kic to lungs, mucous membranes.		
Other Toxic Effects on Humans		case of skin contact (irritant), of ingestion. of skin contact (corrosive), of inhalation.		
Special Remarks on Toxicity to Animals	Not available.			
Special Remarks on Chronic Effects on Humans	Not available.			
Special Remarks on Other Toxic Effects on Humans	Not available.			
Section 12. Ecological Info	ormation			
Ecotoxicity		Not available.		
BOD5 and COD		Not available.		
Products of Biodegradation		Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.		
Toxicity of the Products of Biode	gradation	The products of degradation are as toxic as the original product.		
Special Remarks on the Products of Biodegradation Not available.				
Section 13. Disposal Consid	derations			
Vaste Disposal				
Section 14. Transport Infor	rmation			
DOT Classification	CLASS 8: Corrosi	ve liquid.		
Identification	Chromic acid, solut	tion : UN1755 PG:II		
Special Provisions for Transport	Not available.			
DOT (Pictograms)				
Section 15. Other Regulate	ory Information ar	nd Pictograms		
Federal and State Regulations	California pr California ha require a war	op. 65: This product contains the following ingredients for which the State of is found to cause cancer, birth defects or other reproductive harm, which would rning under the statute: Chromic acid. a RTK: Chromic acid.		

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Federal and State Minnesota: Chromic acid   Regulations cont Massachusetts RTK: Chromic acid.   New Jersey: Chromic acid. TSCA 8(b) inventory: Chromic acid; water.   SARA 302/304/311/312 extremely hazardous substances: Chromic acid.   SARA 313 toxic chemical notification and release reporting: Chromic acid.   CERCLA: Hazardous substances: Chromic acid.						
California Proposition 65 Warnings California prop. 65. This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Chromic acid.						
Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).						
Other Classifications	WHMIS (Canada)	CLASS D-2A: Material causing other toxic CLASS E: Corrosive liquid.	c effects (VERY TOXIC)			
I	DSCL (EEC)	<ul><li>R22- Harmful if swallowed.</li><li>R35- Causes severe burns.</li><li>R45- May cause cancer.</li></ul>				
HMIS (U.S.A.) Health Haza Fire Hazard Reactivity	$\frac{1}{0}$	National Fire Protection Association (U.S.A.) Healt	Flammability h $200$ Reactivity			
WHMIS (Canada) (Pictograms)		DSCL (Europe) (Pictograms)	Specific hazard			
TDG (Canada) (Pictograms)		ADR (Europe) (Pictograms)				
Protective Equipment Gloves. Full suit. Vapor respirator. Face shield						
Section 16. Other Information						
Catalog Number(s)	RE2138					
References	Not available.					
Other Special Considerations	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, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.