



Material Safety Data Sheet



HMIS

Health Hazard	2
Fire Hazard	0
Reactivity	0

PPE (See Section 15)



Section 1. Chemical Product and Company Identification

Trade Name	Fluoride Test	Part #	RE2035
Manufacturer	Haztech Systems, Inc. PO Box 929 Mariposa, CA 95338	CAS #	13520-92-8 / 72-48-0 / 7-56-1
Commercial Name		RTECS	ZH7700000 / CB6580000 / PC1400000
Synonyms		TSCA	TSCA 8(b) inventory: Zirconyl chloride Alizarin Methyl alcohol
Chemical Family		CI #	
Chemical Formula	ZrOCl ₂ .xH ₂ O, C ₁₄ H ₈ O ₄ , CH ₃ OH	In case of emergency contact CHEMTREC (24 hours) at 800-424-9300 HazTech Systems, Inc. 800-543-5487 Spectrum Chemical Mfg. Corp. 310-516-8000	
Supplier	Spectrum Chemical Mfg. Corp. 14422 S. San Pedro St. Gardena, CA 90248		

Section 2. Composition and Information on Ingredients

Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL	CEIL (mg/m ³)	
Zirconyl chloride	13520-92-8	5		10	<1%
Alizarin	72-48-0				<1%
Methyl alcohol	67-56-1	260	325		<1%

Toxicological Data on Ingredients	Zirconyl chloride: ORAL (LD50): Acute: 2950 mg/kg (Rat). 1227 mg/kg (Mouse).	Methyl alcohol: ORAL (LD50): Acute: 5628 mg/kg (Rat.). DERMAL (LD50): Acute: 15800 mg/kg (Rabbit.).
	Alizarin: ORAL (LD50): Acute: 316 mg/kg (Bird).	

Section 3. Hazards Identification

Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (permeator). Severe over-exposure can result in death. Eye contact can result in corneal damage.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP, None. by OSHA. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Classified POSSIBLE for human. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE]. The substance is toxic to the nervous system, gastrointestinal tract, eyes. The substance may be toxic to blood, kidneys, lungs, the reproductive system, liver, heart, brain, cardiovascular system, skin, central nervous system (CNS), pancreas. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

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 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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Section 7. Handling and Storage

Precautions	Keep away from sources of accidental ignition. Do not ingest. Do not breathe gas/fumes/ vapor/spray. 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.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid	Volatility	Not available.
Molecular Weight	Not available	Odor Threshold	Not available
pH (1% Solution in Water)	Not available	Water/Oil Dist. Coeff.	Not available.
Boiling Point	Not available	Ionicity (in Water)	Not available
Melting Point	Not available	Dispersion Properties	Not available
Critical Temperature	Not available	Solubility	Easily soluble in water.
Specific Gravity	Not available	Odor	Not available
Vapor Pressure	Not available	Taste	Not available.
Vapor Density	Not available	Color	Purple.

Section 10. Stability and Reactivity Data

Stability	Product is stable.	Corrosivity	Non-corrosive in presence of glass.
Instability Temperature	Not available.	Special Remarks on Corrosivity	Not available.
Conditions of Instability	Not available.	Polymerization	Will not polymerize.
Incompatibility with Various Substances	Not available		
Special Remarks on Reactivity	Not available		

Section 11. Toxicological Information

Route of Entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Zirconyl chloride: Acute oral toxicity (LD50): 1227 mg/kg (Mouse). Alzarin: Acute oral toxicity (LD50): 316 mg/kg (Bird). Methanol: Acute oral toxicity (LD50): 5628 mg/kg (Rat.). Acute dermal toxicity (LD50): 15800 mg/kg (Rabbit.). Acute toxicity of the vapor (LC50): 64000 4 hours (Rat.).
Chronic Effects on Humans	Hazardous in case of ingestion, of inhalation, of skin contact (irritant). CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP, None. by OSHA. TERATOGENIC EFFECTS: Classified POSSIBLE for human. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE]. Causes damage to the following organs: the nervous system, gastrointestinal tract, eyes. May cause damage to the following organs: blood, kidneys, lungs, the reproductive system, liver, heart, brain, cardiovascular system, skin, central nervous system (CNS), pancreas. Causes damage to the following organs: lungs, mucous membranes.
Other Toxic Effects on Humans	
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 Information

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 Biodegradation	The products of degradation are more toxic.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal Recycle to process, if possible. Consult your local or regional authorities.

Section 14. Transport Information

DOT Classification	Class 8, corrosive liquid
Identification	Corrosive liquid, nos, (Zirconyl Chloride), 8, UN1760, III
Special Provisions for Transport	Not available.

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations	Rhode Island RTK hazardous substances: Methyl alcohol Pennsylvania RTK: Methyl alcohol Minnesota: Methyl alcohol Massachusetts RTK: Methyl alcohol New Jersey: Methyl alcohol California Directors List of Hazardous Substances (8CCR 339): Methyl alcohol Tennessee Hazardous Right to Know : Methyl alcohol TSCA 8(b) inventory: Zirconyl chloride, alizarin, methyl alcohol SARA 313 toxic chemical notification and release reporting: Methyl alcohol CERCLA: Hazardous substances.: Methyl alcohol: 5000 lbs. (2268 kg)
California Proposition 65 Warnings	
Other Regulation	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
Other classifications	Not available.

Section 16. Other Information

Part Number(s)	RE2035
References	Not available.
Other Special Considerations	Not available.
Validated by	R. Houghton 10/9/02
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.