



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 **Cadmium Test** Part # RE2024

Manufacturer Haztech Systems, Inc. PO Box 929 Mariposa, CA 95338 CAS # 366-18-7 / 7681-11-0 / 7782-63-0

Commercial Name RTECS DW1750000 / OD5525000 / TT297500

Synonyms a,a'-Dipyridyl 2,2'-Bipyridine CI #

Chemical Formula C10H8N2, FeSO4, KI, H2O

Supplier Spectrum Chemical Mfg. Corp. 14422 S. San Pedro St. Gardena, CA 90248

HazCat Cadmium Test is 2,2' bipyridine chelated with iron in a potassium iodide solution.

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

Section 2. Composition and Information on Ingredients

Exposure Limits

Name	CAS #	TWA (mg/m3)	STEL	CEIL (mg/m3)	% by Weight
2,2'-Bipyridine	366-18-7				<1%
Potassium Iodide	7681-11-0				17%
Ferrous Sulfate Heptahydrate	7782-63-0	1		2	<1%
Water	7681-11-0				82%

Toxicological Data on 2,2'-Bipyridine: ORAL (LD50): Acute: 100 mg/kg (Rat). 150 mg/kg (Mouse).
 Potassium Iodide LD50: Not available. LC50: Not available.

Ingredients Ferrous sulfate heptahydrate: ORAL (LD50): Acute: 1520 mg/kg (Mouse). 1480 mg/kg (Rat).

Section 3. Hazards Identification

Potential Acute Health Effects Very hazardous in case of ingestion, of inhalation. Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant). Severe over-exposure can result in death.

Potential Chronic Health Effects Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant).
 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 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. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention.
Skin Contact	Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.
Serious Skin Contact	Not available.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get 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. Seek medical attention.
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.
Serious Ingestion	

Section 5. Fire and Explosion Data

Flammability	Aqueous solution
Auto-Ignition Temperature	Not available.
Flash Point	Not available.
Flammable Limits	Not available
Products of Combustion	These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ etc.).
Fire Hazards in Presence of Various Substances	Not available.
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	Aqueous solution.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
-------------	--

Section 7. Handling and Storage

Precautions	Avoid contact with eyes. Wear suitable protective clothing. Use adequate ventilation. If ingested, seek medical advice immediately and show the container or the label.
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	Clear pink liquid	Volatility	Not available
Molecular Weight	Not available	Odor Threshold	Not available
pH (1% Solution in Water)	7	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	Water
Specific Gravity	Not available	Odor	Not available
Vapor Pressure	Not available	Taste	Not available
Vapor Density	Not available	Color	Red

Section 10. Stability and Reactivity Data

Stability	Product is stable.	Corrosivity	Not available.
Instability Temperature	Not available.	Special Remarks on Corrosivity	Not available.
Conditions of Instability	Reagent turns yellow when no longer effective.	Polymerization	Will not polymerize.
Incompatibility with Various Substances	Not available.		

Section 11. Toxicological Information

Route of Entry	Eye contact. Inhalation. Ingestion.
Toxicity to Animals	2,2'-Bipyridine: Acute oral toxicity (LD50): 100 mg/kg (Rat).
Chronic Effects on Humans	Very hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).
Other Toxic Effects on Humans	Causes damage to the following organs: lungs, mucous membranes.
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 Non-regulated based on toxicity calculations.

Identification

Special Provisions
for Transport

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations	TSCA 8(b) inventory: 2,2'-Bipyridine Pennsylvania RTK: Ferrous sulfate heptahydrate Massachusetts RTK: Ferrous sulfate heptahydrate TSCA 8(b) inventory: Ferrous sulfate heptahydrate SARA 313 toxic chemical notification and release reporting: Ferrous sulfate heptahydrate CERCLA: Hazardous substances.: Ferrous sulfate heptahydrate
California Proposition 65 Warnings	Warnings California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Potassium Iodide
Other Regulation	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
Other classifications	WHMIS (Canada) CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). DSCCL (EEC) R25- Toxic if swallowed. R36- Irritating to eyes. R38- Irritating to skin. R41- Risk of serious damage to eyes.

Section 16. Other Information

Part Number(s)	RE2024
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.