

Avocado Research Chemicals Ltd - Material Safety Data Sheet 23127

1. IDENTIFICATION OF SUBSTANCE AND SUPPLIER			
Name On Label	cis-Bis(2,2'-bipyridyl)ruthenium(II) chloride dihydrate		
Product Number	23127		
Supplier	Johnson Matthey Catalog Company Inc. 30 Bond Street, Ward Hill, Massachusetts, 01835-8099 Emergency Telephone Number: (978) 521-6300; CHEMTREC: (800) 424-9300		
Alternative Names	None in common use.		
2. COMPOSITION AND INFORMATION ON COMPONENTS			
Name	cis-Bis(2,2'-bipyridyl)ruthenium(II) chloride dihydrate		
Minor Impurities	Not determined		
CAS No.	15746-57-3	EINECS No.	Not listed
		EEC No.	
3. HAZARDS IDENTIFICATION			
Designation	IRRITANT		
Risk Phrases	R36/37/38 Irritating to eyes, respiratory system and skin.		
4. FIRST AID MEASURES			
Inhalation	Remove to fresh air. If breathing is difficult give oxygen and seek medical attention.		
Eye Contact	Flush with copious amounts of water for at least 15 minutes. If irritation persists, seek medical attention.		
Skin Contact	Remove contaminated clothing. Wash affected area with soap and water. Rinse thoroughly. If irritation persists or other symptoms are observed, seek medical advice.		
Ingestion	Rinse out mouth and drink lots of water. In case of irritation or other symptoms, seek medical attention.		
5. FIRE FIGHTING MEASURES			
Extinguishing Medium	Use fire fighting measures which suit the environment and take into account other materials which may be involved. In general, water-based extinguishers should not be used for fires involving organic materials. Use carbon dioxide or dry powder.		
Protective Equipment	Wear self-contained breathing apparatus and protective clothing.		
Hazardous Products of Combustion may include:	carbon monoxide, carbon dioxide, hydrogen chloride (hydrochloric acid), oxides of nitrogen, nitric acid, hydrogen cyanide.		
6. ACCIDENTAL RELEASE MEASURES			
Personal Protection	Wear protective equipment including rubber gloves, and eye protection. Keep unprotected persons away.		
Environmental Protection	Take precautions to ensure product does not contaminate the ground or enter the drainage system.		
Collection	Mix with vermiculite or proprietary absorbent material and transfer to sealed containers for disposal.		
7. HANDLING AND STORAGE			
Handling	Chemicals should be used only by those trained in handling potentially hazardous materials. Rubber gloves, eye protection and protective clothing should be worn. Operations should be carried out in an efficient fume hood or equivalent system.		
Storage	Store in tightly sealed containers in a cool place. Product is hygroscopic. Take precautions to avoid contact with atmospheric moisture.		
8. EXPOSURE CONTROLS AND PERSONAL PROTECTION			
Respiratory	Avoid inhalation of product. Handle in an efficient fume hood or equivalent system.		
Eye	Avoid eye contact. Wear safety spectacles, goggles or, for larger quantities, a full face mask.		
Hands and Body	Irritant product. Avoid skin contact. Wear rubber gloves, protective clothing and, for larger quantities, full arm, body and face protection. Wash hands thoroughly after handling.		

Continued on next page...

23127 continued.

9. PHYSICAL AND CHEMICAL PROPERTIES			
Appearance			
Physical Constants	Not available		
Molecular formula	C ₂₀ H ₁₆ Cl ₂ N ₄ Ru.2H ₂ O	Formula Wt.	520.38
Water solubility		Density	Not available
Flash Point	Not available		
10. STABILITY AND REACTIVITY			
Specific Hazard			
Incompatibilities	Strong oxidising agents.		
Decomposition	Hazardous products of decomposition may include: carbon monoxide, carbon dioxide, hydrogen chloride (hydrochloric acid), oxides of nitrogen, nitric acid, hydrogen cyanide.		
11. TOXICOLOGICAL INFORMATION			
RTECS No.	Not listed		
Acute Toxicity	LD ₅₀ : Not available Irritating to eyes, respiratory system and skin.		
12. ECOLOGICAL EFFECTS			
General	Take care to prevent chemicals from entering the ground, water courses or drainage systems.		
13. DISPOSAL CONSIDERATIONS			
Disposal	Disposal should be via an approved contractor and should take full account of local regulations.		
14. TRANSPORT INFORMATION			
UN Number			
Land Transport	ADR/RIC Code/Class	n/a	Packing Group n/a
Maritime Transport	IMDG Code/Class	n/a	Packing Group n/a
Air Transport	IATA Code/Class	n/a	Packing Group n/a
15. REGULATORY INFORMATION			
CAS No.	15746-57-3	EINECS No.	Not listed
		EEC No.	
		UN No.	None
		RTECS No.	Not listed
Hazard Indication	IRRITANT		
Risk & Safety Phrases	Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.		
TSCA			
16. OTHER INFORMATION			
It must be recognised that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.			
Date of Last Review:	1st June 2000	Date Printed:	13th November 2000