

# MATERIAL SAFETY DATA SHEET



Date of Issue: January 30, 2007

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name **Octave<sup>®</sup> WP Fungicide**

Other names None

Product codes and pack sizes 4209205 (1 kg)

Chemical group Imidazole

Recommended use Fungicide for agricultural use

Formulation Wettable powder (WP)

Supplier Bayer CropScience Pty Ltd ABN 87 000 226 022

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## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**  
**HAZARDOUS SUBSTANCE (See risk phrase below) – NON-DANGEROUS GOOD (road/rail)**  
**VERY TOXIC TO AQUATIC ORGANISMS**

Hazard classification Hazardous (National Occupational Health and Safety Commission - NOHSC)

Risk phrases R22 – Harmful if swallowed.

Safety phrases See Sections 4, 5, 6, 7, 8, 10, 12, 13

ADG classification Not Dangerous Goods for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. If product is shipped by sea, it is a Marine Pollutant. See Section 14.

SUSDP classification (Poison Schedule) Schedule 6 (Standard for the Uniform Scheduling of Drugs and Poisons)

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration (g/kg)
Prochloraz manganese chloride complex	[75747-77-2]	500 (≡ 462 g/kg prochloraz)
Kaolin	[1332-58-7]	350
Other ingredients, including wetting/dispersing agents	(non hazardous)	150

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## 4. FIRST AID MEASURES

**If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to the doctor.**

Inhalation	If inhaled move to fresh air and keep at rest. Obtain medical advice if symptoms persist.
Skin contact	Carefully remove contaminated clothing. Wash affected areas with soap and water. Seek medical aid if symptoms persist.
Eye contact	Rinse eyes immediately with plenty of clean water and obtain medical advice.
Ingestion	Wash out mouth with water. Do NOT induce vomiting. Keep patient at rest and seek medical advice as above.
First Aid Facilities	Ensure eyewash and shower facilities are available.
Medical attention	Symptoms of poisoning may only appear several hours after exposure. Keep under medical supervision for at least 48 hours. <i>Local contamination:</i> Symptoms: Slight skin and eye irritation; irritation of mucous membranes. Treatment: Initial treatment should be symptomatic and supportive after decontamination. <i>Systemic poisoning:</i> Symptoms: gastrointestinal irritation and possible liver damage. For systemic poisoning initial treatment should be symptomatic and supportive. If a large amount of this product is ingested the following measures should be considered: Monitor liver and central nervous system function. Gastric lavage with charcoal administration, if less than 1 hour after ingestion. Further treatment, if necessary. There is no specific antidote. Recovery is expected to be spontaneous.

## 5. FIRE FIGHTING MEASURES

Extinguishing media	Water spray, alcohol-resistant foam, dry chemical, carbon dioxide.
Hazards from combustion products	In the event of a fire the following can be released: Carbon monoxide, nitrogen oxides, hydrogen chloride.
Precautions for fire fighters	Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise, spray unopened containers with water to keep cool. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later.
Hazchem code	2Z

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## 6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Eliminate possible sources of ignition. Do not smoke, eat or drink during the clean up process. Wear personal protective clothing and equipment as detailed in Section 8 PERSONAL PROTECTION. Keep people and animals away. Sweep or preferably vacuum up spillage. Avoid creating dust. Collect and store in properly labelled, sealed drums for safe disposal. Prevent spilled material from entering drains or watercourses. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc. is unavoidable, warn the local water authority.

## 7. HANDLING AND STORAGE

Handling	Keep out of reach of children. Product is poisonous if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. Do not breathe dust. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing. Keep away from sources of ignition. Dust may form explosive mixtures with air.
Storage	Store in the closed, original container in a dry, cool, well ventilated, secure area, out of direct sunlight.
Flammability	Not readily combustible. However, dust / air mixtures can build up static electrical charges and fine dust may form explosive mixtures in air. This product has a limited dust explosion hazard.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards	The NOHSC exposure standard for kaolin is: TWA 10 mg/m <sup>3</sup> (as inspirable dust)
	<u>Definitions</u> <i>Exposure standard – Time Weighted Average (TWA)</i> means the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.
Biological limit values	None allocated
Engineering controls	Control process conditions to avoid contact. Use local exhaust ventilation indoors. Use in a well-ventilated area only.
Personal Protective Equipment	Eyes: Safety goggles if exposure is possible Clothing: Cotton overalls buttoned to the neck and wrist to avoid skin contact Gloves: Elbow-length PVC or nitrile gloves Respiratory: If inhalation of product is likely, an AS/NZS 1715/1716 approved respirator should be worn.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Off-white powder
Odour:	Weak, characteristic
pH:	Approximately 7.5 (10 g/L at 20 °C)
Vapour pressure:	Not available
Vapour density:	Not available
Boiling point:	Not applicable
Freezing/melting point:	Not available
Solubility:	Disperses in water
Bulk density:	Approximately 270 kg/m <sup>3</sup> (loose); 350 kg/m <sup>3</sup> (bulk density tapped)
Flash Point:	Not applicable
Flammability (explosive) limits:	Not explosive
Auto-ignition temperature:	Not self-ignitable
Partition coefficient (octanol/water):	<i>Prochloraz</i> : Log P <sub>ow</sub> = 4.38

## 10. STABILITY AND REACTIVITY

Chemical stability	Stable under normal conditions of storage and use.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	Avoid strong oxidising agents.
Hazardous decomposition products	In the event of a fire the following can be released: Carbon monoxide, nitrogen oxides, hydrogen chloride.
Hazardous reactions	None, when handled according to directions. Dust may form explosive mixtures with air.

## 11. TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

Inhalation	This product is expected to have low toxicity by inhalation. However, prolonged exposure to high dust concentrations may cause irritation to the respiratory tract.
Skin contact	Will irritate the skin. Octave was not a skin sensitiser in the guinea pig test.
Eye contact	Will irritate the eyes.
Ingestion	Harmful if swallowed.

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## 11. TOXICOLOGICAL INFORMATION - continued

### ANIMAL TOXICITY DATA - PRODUCT

#### Acute:

Oral toxicity	LD <sub>50</sub> rat: 2700 mg/kg
Dermal toxicity	LD <sub>50</sub> rat: > 2000 mg/kg
Inhalation toxicity	LC <sub>50</sub> rat, 4 hour: > 2.66 mg/L. Highest attainable concentration.
Skin irritation	Not irritating (rabbit)
Eye irritation	Slightly irritating (rabbit)
Sensitisation	Non sensitising (guinea pig) (prochloraz-manganese)

#### Chronic:

Prochloraz is not mutagenic, carcinogenic or teratogenic. Ingestion of excessive amounts by pregnant animals resulted in maternal and foetal toxicity. Chronic exposure may cause damage to the central nervous system and liver.

## 12. ECOLOGICAL INFORMATION

Very toxic to aquatic organisms. Low toxicity to birds, bees and earthworms.  
Prochloraz manganese complex readily dissociates to give free prochloraz.  
DO NOT contaminate streams, rivers, or waterways with Octave or the used containers.

#### Ecotoxicity

##### Prochloraz:

*Fish toxicity:* LC<sub>50</sub> (96 h) rainbow trout (*Oncorhynchus mykiss*) 1.5 mg/L

LC<sub>50</sub> (96 h) bluegill sunfish 2.2 mg/L

*Daphnia toxicity:* EC<sub>50</sub> (48 h) water flea (*Daphnia magna*) 4.3 mg/L

*Algal toxicity:*

EC<sub>50</sub> (72 h) algae (*Selenastrum capricornutum*) 0.094 mg/L

*Bird toxicity:*

Acute oral LD<sub>50</sub> mallard duck > 1954 mg/kg

Acute oral LD<sub>50</sub> bobwhite quail 662 mg/kg

##### Octave Fungicide:

*Fish toxicity:* LC<sub>50</sub> (96 h) rainbow trout (*Oncorhynchus mykiss*) 2.4 mg/L

*Daphnia toxicity:* EC<sub>50</sub> (48 h) water flea (*Daphnia magna*) 4.3 mg/L

#### Environmental fate, persistence and degradability, mobility

Prochloraz is readily adsorbed onto organic matter and is degraded by biological activity and by sunlight. Prochloraz is immobile in soil, not readily degradable and not readily leached. DT<sub>50</sub> under field conditions is 5-37 days.

Bioaccumulation - prochloraz

*Oncorhynchus mykiss* (rainbow trout)

Bioconcentration factor (BCF): 200

Elimination: yes

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## 13. DISPOSAL CONSIDERATIONS

Single rinse bags before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. Puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Dispose of waste product via a licensed disposal contractor to an approved landfill.

## 14. TRANSPORT INFORMATION

UN number	Not applicable (road/rail)
Proper shipping name	Not applicable (road/rail)
Class and Subsidiary Risk	Not applicable (road/rail)
Packing Group	Not applicable (road/rail)
EPG	Not applicable (road/rail)
Hazchem code	2Z
Marine Pollutant	Yes. If this product is shipped by sea it is a Class 9, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (prochloraz manganese complex mixture), UN 3077, Packing Group III, Marine Pollutant.

## 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Act 1988

Australian Pesticides and Veterinary Medicines Authority approval number: 30485      See also Section 2.

## 16. OTHER INFORMATION

**Trademark information**      Octave® is a Registered Trademark of Bayer.

**Preparation information**      Replaces August 1, 2002 MSDS. Reasons for revision: 16 heading format, product codes and pack sizes, Marine Pollutant if shipped by sea, Composition/Information on Ingredients, Hazchem code, Ecological Information.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

END OF MSDS