



SAFETY DATA SHEET ORIOUS 250 EW Fungicide

Section 1: Identification of the Substance and Supplier

Product name : **ORIOUS 250 EW**
Chemical name of active Ingredient(s): Tebuconazole: C₁₆H₂₂CIN₃O
alpha-tert-butyl-alpha-(para-chlorophenethyl)-1,2,4-triazole-1-ethanol
Use: Fungicide

Supplier: **ADAMA New Zealand Limited**
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Telephone +64 3 543 8275 Fax: +64 3 543 8274

Emergency Telephone: **0800 POISON (0800 764 766)**

Section 2: Hazards Identification

Hazard Classifications: 6.1E, 6.4A, 6.9B, 9.1A

Most important hazards: **WARNING:** Maybe harmful if swallowed, inhaled or absorbed through the skin.
May cause eye irritation.
May cause organ damage from repeated oral exposure at high doses.
Avoid eye and skin contact. Avoid inhalation of spray mist.
Very toxic to aquatic organisms. Avoid contamination of any water supply with product or empty container.

Section 3. Composition/Information on Ingredients

Substance/preparation	Preparation				
Information on hazardous ingredients *					
Common name	CAS No.	Value	EC Number	Symbol	R-Phrases
Tebuconazole	107534-96-3	250 g/l	403-640-2	Xn,N	R22, R51-53
N,N-dimethyl fatty acid amide	--	610 g/l	--	Xi	R38-41, R52

- **Occupational Exposure Limit(s), if available, are listed in section 8**

Section 4: First-Aid Measures

First-aid measures: Remove victim from area of exposure. Wash off remaining material with plenty of water.

Inhalation: Remove victim to fresh air. Consult a doctor in the event of any complaints.

Ingestion: Do NOT induce vomiting. Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

Skin contact: Remove contaminated clothing. Wash away remainder with water and Soap. Followed by a warm water rinse. Consult a doctor in the event of any complaints.

Eye contact: Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Consult eye specialist immediately.

Notes to a physician: There is no specific antidote. Treat symptomatically and give supportive therapy. If ingested perform gastric lavage and administer activated charcoal.

Protection of first-aiders: Use appropriate protection (see section 8).

Section 5: Fire-Fighting Measures

Extinguishing media Suitable: Water spray, water fog, foam.

Special Procedures: Fight fires from protected location. Dike fire control water for later disposal.

Hazardous thermal: Thermal decomposition generates: carbon monoxide, carbon dioxide, nitrogen oxides, chlorides, oxidizing agents.

(de)composition products:

Protection of fire-fighters: Wear proper protective equipment. Self-contained breathing apparatus.



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Section 6: Accidental Release Measures

Personal precautions:	Wear appropriate protective clothing. (see section 8)
Environmental precautions:	Dispose of this material and its container at hazardous or special waste collection point, in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities. Contaminated soil layers have to be dug out.
Methods for cleaning up:	In the event of minor spillage. Absorb remainder in sand or other inert material. Use appropriate container to avoid environmental contamination. In the event of major spillage: Collect and contain as much free liquid as possible. Dike spills using absorbent or impervious materials such as sand or clay for later disposal. Dispose of in an authorised waste collecting point.

Section 7: Handling and Storage

Handling:	Keep out of reach of children. Do not breathe fumes. Avoid contact with skin and eyes. Do not eat, drink or smoke while using.
Storage:	Store in original, unopened container in cool, dry place, well ventilated place, out of direct sunlight and away from stockfeed or foodstuffs. Avoid temperatures above 50°C.

Section 8: Exposure Controls/Personal Protection

Engineering measures:	Ventilation required.
Hygiene measures:	When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.
Occupational Exposure Limits:	
TLV	(USA) Tebuconazole: Not Established
Common name:	
Personal protective equipment:	
Respiratory Protection:	During spraying wear suitable respiratory equipment.
Skin and body:	Wear suitable protective clothing. Chemical resistant boots.
Hands:	Chemical resistant gloves.
Eyes:	Safety goggles or Chemical goggles.

Section 9: Physical and Chemical Properties

Physical state:	Liquid
Colour:	Clear yellow
Odour:	Odourless
Density:	1.060 – 1.086
pH value:	4-5
Specific gravity:	1.08 g/cm ³ (20°C)
Molecular weight:	Tebuconazole: 307.8
Viscosity:	161.188 cts
Solubility in water:	Emulsifiable
Log P octanol:	Tebuconazole: 3.22

Section 10: Stability and Reactivity

Physico-chemical Stability:	Stable under normal conditions
Materials to avoid:	Oxidizing agents, acids and alkali
Hazardous reactions:	Avoid contact with: strong bases and strong acids.
Hazardous decomposition Products:	Thermal decomposition generates: carbon monoxide, carbon dioxide, Chlorides, nitrogen oxides oxidizing agents.
Hazardous Polymerization:	Will not occur
Conditions to avoid:	Protect from (sun) light, open flame and sources of heat. Decomposes upon heating.



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Section 11: Toxicological Information

Acute toxicity - Oral:	LD ₅₀ (rat) >2,000 mg/kg
Acute toxicity - Dermal:	LD ₅₀ (rat) >2,000 mg/kg
Acute toxicity – Inhalation:	LC ₅₀ (rat) 4.95 mg/L/4h
Skin irritation:	Not irritating (rabbit).
Eye irritation:	Irritating (rabbit).
Sensitization:	Non Sensitizer (Guinea-pig)

Section 12: Ecological Information

Ecological effects information:	Toxic to aquatic organisms
96 H-LC50 – Rainbow trout [mg/l]:	4.68
48 H-EC50 – Daphnia magna [mg/l]:	16
72 H-EC50 Algae [mg/l]:	9.13

Section 13: Disposal Considerations

Methods of disposal: Container Disposal - Triple rinse empty container and add rinsate to spray tank. Burn in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill, or if appropriate, recycle. Avoid contamination of any water supply with product or empty container.

Section 14: Transport Information

UN Number	3082
Proper shipping name	Environmentally hazardous substance, Liquid, N.O.S, (tebuconazole)
DG Class	9
Packing Group	III
Hazchem Code	2X
Marine Pollutant	No
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National transport regulations: Do not carry this product on a passenger service vehicle.

Segregation: Check the land transport Rule Dangerous Goods 1999, Rule 45001 for additional information. Sea transport may require additional segregation. Refer: NZS5433; Sea Segregation, or the International Maritime Dangerous Goods Code for details.

Section 15: Regulatory Information

New Zealand Regulatory Information:

NZFSA Approval:	Registered pursuant to the ACVM Act 1997. No P7274 See www.nzfsa.govt.nz/acvm for registration conditions. Approved pursuant to the HSNO Act 1996, Approval No. HSR000751 See www.ermanz.govt.nz for registration conditions.
HSNO Classifications:	6.1E, 6.4A, 6.9B, 9.1A



APPROVED HANDLER - APPROVED HANDLER - This product must be under the care of an approved handler when it is applied in a wide dispersive manner or used by a commercial contractor.



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RECORD KEEPING - Records of use must be kept under certain circumstances – see The New Zealand Standards for Management of Agrichemicals (NZS8409) for details.

Section 16: Other Information

Note: This product is a registered agricultural chemical and must be therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

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HISTORY

Date of printing:	03/06/2014
Supersedes SDS issued	12/08/2009