



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Quantum Seed Treatment
Other Names: Fluquinconazole
Product Codes: None allocated
Recommended Use: For the control of a range of foliar and head diseases in wheat and barley, plus the suppression of take-all and septoria tritici blotch in wheat and blackleg in canola.
Chemical Family: Azole
Supplier: Chemtura Australia Pty Ltd
ABN: 005 225 507
Street Address: Level 7, 435 King William Street
Adelaide South Australia 5000
Telephone Number: 61 8 8112 0900
Facsimile Number: 61 8 8112 0999
Emergency Telephone: **1800 033 111 (24-hour service)**

2. HAZARDS IDENTIFICATION

Hazard Classification: **HAZARDOUS SUBSTANCE, DANGEROUS GOOD**
Classified according to the criteria of the National Occupational Health and Safety Commission (NOHSC).

Risk Phrases:

Toxic (T):
R23/25 Toxic by inhalation and if swallowed.
R48/25 Toxic: danger of serious damage to health by prolonged exposure if swallowed.

Harmful (Xn):
R21 Harmful in contact with skin.

Irritant (Xi):
R38 Irritating to skin.

Dangerous for the environment (N):
R50-53 Very toxic to aquatic organisms. Toxic to aquatic organisms. Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Safety Phrases: None allocated

Poisons Schedule: S6
Dangerous Goods Class: 6.1

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Identity	Common Name(s) and Synonym(s)	CAS Number	Proportion by Weight
Fluquinconazole	Fluquinconazole	136426-54-5	10-<30% (167g/L)
	Other ingredients	(non hazardous)	>60% (~900g/L)

Note: Australian and US Patents apply.

4. FIRST AID MEASURES

Ingestion:	If swallowed, immediately contact a doctor or Poisons Information Centre (Australia 131 126; New Zealand 03 4747 000), and follow the advice given. Wash out mouth with water. Keep patient at rest.
Inhalation:	Inhalation improbable. If inhaled, remove to fresh air and obtain medical advice.
Eye Contact:	Rinse immediately with clean water, including under eyelids, for at least 15 minutes and obtain medical advice.
Skin Contact:	Remove contaminated clothing. Wash affected areas with plenty of soap and water. If irritation persists seek medical advice.
Advice to Doctor:	If poisoning occurs, immediately contact a doctor or Poisons Information Centre (Australia 131 126; New Zealand 03 4747 000), and follow the advice given. Show this Material Safety Data Sheet to a doctor.

Local contamination may cause slight skin and eye irritation. Symptoms of systemic poisoning include gastro-intestinal irritation, possible liver damage, lethargy, weakness, ataxia, muscle tremors and incontinence.

Treatment:

Local contamination - symptomatic after decontamination.

Systemic Poisoning - Initial treatment should be symptomatic and supportive. In the event of large exposure/amount (more than one mouthful) being ingested, carry out gastric lavage and charcoal administration. Monitor the respiratory, cardiac and liver functions and the central nervous system, with particular reference to liver enzymes. There is no specific antidote.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	If product is involved in a fire, use water spray, foam, dry powder, carbon dioxide or sand.
Hazards from Combustion Products:	Stable under normal conditions of use. May give off toxic fumes if burnt.
Precautions for Fire fighters and Special Protective Equipment:	Firefighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715, 1716). If possible and without risk, remove intact containers from exposure to fire. Otherwise, spray unopened containers with water to keep cool. Whenever possible, contain fire-fighting water by bunding area with sand or earth to prevent it entering any bodies of water.
HazChem Code:	2X
Additional Information:	None available.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	None specified.
Methods and Materials for Containment and Clean-Up Procedures:	Avoid contact with spilled material or contaminated surfaces. If ordinary clothing becomes contaminated remove it immediately. When dealing with the spillage, do not eat, drink or smoke and wear personal protective clothing as detailed in 'Personal Protection' section. Keep people and animals away. Prevent entry into drains, sewers and watercourses. Contain/absorb spillage in sand/earth or in a suitable inert material. Transfer collected material to heavy-duty plastic drums. Seal and label ready for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling:	Keep out of reach of children. Wash thoroughly with soap and water after handling and before eating, drinking or smoking.
Conditions for Safe Storage:	Store in the closed, original container in a cool, secure, well-ventilated area. Do not store for prolonged periods in direct sunlight. Do not store near foodstuffs or animal feed. Protect from frost. Store treated seed in clearly marked bags or silos, away from other grain, animal feed or foodstuffs, in a cool, dry storage area.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

National Exposure Standards:	No exposure standard has been assigned by the National Occupational Health and Safety Commission (NOHSC) (Worksafe Australia)..
Biological Limit Values:	Not available.

Engineering Controls:	Control process conditions to avoid contact. Use local exhaust ventilation during manufacture.
Personal Protective Equipment (PPE):	Respirator type (AS 1716): None required when handling the product. Wear dust mask if handling dried treated grain in confined spaces. Eye protection: Safety goggles. Glove type: Elbow –length PVC gloves. Clothing: Cotton overalls buttoned to the neck and wrist (or equivalent clothing). Other Information: Do not eat, drink or smoke until after washing. Wash thoroughly after handling. After each days use wash gloves, goggles and contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Flowable red liquid suspension.
Odour:	Faint odour.
pH:	Approximately 7
Melting Point:	Not available.
Solubility:	Miscible in water.
Viscosity (Brookfield) @ 20°C:	7.000-10.000mPa-s
Specific Gravity (Water = 1):	1.07g/mL at 20°C
Vapour pressure:	Not determined.
Vapour density:	As for water
Decomposition Temp:	Not available.
Flashpoint:	Not combustible.

10. STABILITY AND REACTIVITY

Chemical Stability:	Product is stable under normal conditions of use.
Conditions to Avoid:	May give off toxic fumes if burnt.
Incompatible Materials:	Not available
Hazardous Decomposition Products:	Not available.
Hazardous Reactions:	May give off toxic fumes if burnt
Polymerisation:	Not available.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:

Acute Health Effects:	Swallowed: Harmful if swallowed. Eye: May irritate the eyes. Avoid contact with eyes. In animal test the product was found to be non-irritating to rabbit eyes. Skin: Negligible skin penetration. Not irritating or sensitising to skin in animal tests. Inhaled: Mist is harmful by inhalation, but not required to be classified as such.
Chronic Health Effects:	Fluquinconazole gave evidence of non-genotoxic effects not relevant to man. Negative in a battery of genotoxicity tests. No treatment related effects in a rat multi-generation study at doses at 0.9mg/kg/day. At higher dose levels there was parental toxicity and effects on pup growth and survival.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Data given in this section are for the active ingredient. Aquatic toxicity: 96 hr LC50 trout 1.9mg/L, carp 1.9mg/L 48hr EC50 daphnia > 5.0 mg/L 72hr EC50 algae 0.014 mg/L
Persistence/Degradability:	Data given in this section are for the active ingredient: Soil DT50 200-300 days (pH 7.0) Water DT50 21.9 days (pH 7.0) Photolysis DT50 92.4 days (290-360 nm) BOD/COD 1.29 mg/O2/L Sediment/Water system DT50 12-15 days.

Toxicology: Acute toxicity data (similar product):
Oral LD50 (mg/kg): 429-492 (species: rat)
Dermal LD50 (mg/kg): >4000 (species: rat)
Inhalation LC50 (mg/L): No data (species: ---)
Other toxicity:
Acute oral LD50 Duck > 2000 mg/kg
LC50 quail 4392 mg/kg
Low toxicity to honey bees and earthworms.

Bioaccumulation: Data given in this section are for the active ingredient.
Log Pow = 3.24

Mobility: Data given in this section are for the active ingredient: Immobile in soil.

13. DISPOSAL CONSIDERATIONS

Disposal Method(s): Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycle or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for the purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Precautions for Landfill or Incineration: If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

UN Number: 2902
UN Proper Shipping Name: PESTICIDES, LIQUID, TOXIC, N.O.S.* - (CONTAINS FLUQUINCONAZOLE)
DG Class & Subsidiary Risk: Class 6.1
Packing Group: PG III
EPG Number: Guide 34
IERG Number: 34
Special Precautions for User: Not available.
HazChem Code: 2X
Other Information: This product is classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail.
Packaging Method: 5.9.6.1

15. REGULATORY INFORMATION

Poisons Schedule: S6
Additional Information: APVMA Product number: 57975

16. OTHER INFORMATION

Date of Preparation: April, 2006
Revision Date: March, 2008
Revision Number: 1
Revision Summary: Rev 1 - Update of Chemtura Australia contact details and description of use.

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