



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** Titan Seed Treatment  
**Other Names:** Triticonazole/cypermethrin  
**Product Codes:** None allocated  
**Recommended Use:** Seed treatment for the control of covered smut, loose smut and flag smut in wheat, covered smut and loose smut in barley and oats and for the protection against insect pests of stored grains.  
**Chemical Family:** Triazole + synthetic pyrethroid  
**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:** **NON-HAZARDOUS SUBSTANCE, NON-DANGEROUS GOOD**  
Classified according to the criteria of the National Occupational Health and Safety Commission (NOHSC).

**Risk Phrases:** **Cypermethrin component:**  
**Toxic (T):**  
R 25 Toxic if swallowed.

**Safety Phrases:** None allocated.  
**Poisons Schedule:** S5  
**Dangerous Goods Class:** None allocated.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Identity	Common Name(s) and Synonym(s)	CAS Number	Proportion by Weight
Triticonazole	Triticonazole	131983-72-7	<10% (25g/L)
Cypermethrin	Cypermethrin	52315-07-8	<10% (4g/L)
	Other ingredients (non-hazardous)	(non-hazardous)	>60%

**Note:** Australian and US Patents apply.

## 4. FIRST AID MEASURES

**Ingestion:** Wash out mouth with water. Do not induce vomiting. Keep patient at rest and seek medical advice.  
**Inhalation:** 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. Seek medical aid if at all worried.  
**Advice to Doctor:** If poisoning occurs contact a doctor or Poison Information Centre. Phone Australia 131 126; New Zealand 03 4747 000. Follow the advice given. Show this Material Safety Data Sheet to a doctor.

No symptoms of poisoning with triticonazole have been recorded. Although cypermethrin is present in a low concentration, synthetic pyrethroids can cause eye and skin irritation and parathesiae. Medical advice for treatment of poisoning with cypermethrin. Irritated skin may be cleaned with cleansing milk. Application of a vitamin E or moisturizing cream may relieve symptoms. For eyes, instill local anaesthetic drops eg. 1% amethocaine hydrochloride eye drops. Give analgesics as necessary. As the cypermethrin content of this product is approximately 0.4%, systemic poisoning from this compound is unlikely.

Medical advice for treatment of poisoning with triticonazole:

If a large amount of this product is ingested the following measures should be considered:

Monitor liver function.

Gastric lavage.

Charcoal administration.

Anticonvulsant therapy is not appropriate.

There is no specific antidote for poisoning with triticonazole.

**Additional information:** Ensure washing facilities are available.

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## 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Carbon dioxide, water spray, dry agent, foam.

**Hazards from Combustion Products:** Stable under normal conditions of use. Cypermethrin is incompatible with alkaline materials. Oxides of carbon and nitrogen and compounds of chlorine may be given off when exposed to extreme heat or fire.

**Precautions for Fire fighters and Special Protective Equipment:** Wear full protective gear, including self-contained breathing apparatus (AS/NSZ 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. Dispose of fire control water or other extinguishing agent and spillage safely later.

**HazChem Code:** None allocated.

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## 6. ACCIDENTAL RELEASE MEASURES

**Emergency Procedures:** If contamination of drains, streams, watercourses etc. is unavoidable, warn the local water authority.

**Methods and Materials for Containment and Clean-Up Procedures:** **Spills & Leaks:** Avoid contact with the spilled material or contaminated surfaces. When dealing with spills do not eat, drink or smoke and wear personal protective clothing and equipment as described in the 'Personal Protection' section. Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc. is unavoidable, warn the local water authority.

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## 7. HANDLING AND STORAGE

**Precautions for Safe Handling:** Keep out of reach of children. Avoid contact with the eyes and skin and avoid inhalation of spray mist and dust from grain or treated seed.

**Conditions for Safe Storage:** Store in the closed, original container in a dry, cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Store treated seed in clearly marked bags or silos, away from other grain, animal feed or foodstuffs, in a cool, dry storage area. Bags, bins or containers which have held treated seed should not be used for any other purpose.

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## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**National Exposure** There are no exposure standards allocated by the National Occupation Health & Safety Commission

<b>Standards:</b>	(Worksafe Australia) for the product or its ingredients. The exposure standard for triticonazole set by Chemtura Australia Pty Ltd is 4 mg/m <sup>3</sup> . NOHSC has established an exposure standard for dust of 10mg/m <sup>3</sup> Time Weighted Average (inspirable dust). Exposure to dust may occur during handling of grain and treated seed.
<b>Biological Limit Values:</b>	Not determined
<b>Engineering Controls:</b>	Control process conditions to avoid contact. Use local exhaust ventilation during manufacture. Use in a well-ventilated area only.
<b>Personal Protective Equipment (PPE):</b>	<b>Respirator type (AS 1716):</b> Respiratory protection is not normally required. If airborne concentrations are likely to exceed the exposure standards above, an AS/NZS 1715/1716 approved respirator should be worn. <b>Eye Protection:</b> Safety goggles or face shield. <b>Glove type:</b> Elbow-length PVC gloves. <b>Clothing:</b> Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and washable hat. <b>Other Information:</b> Workers exposed to grain dust should wear a disposable dust mask. 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, goggles or face-shield and contaminated clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Viscous red suspension.
<b>Odour:</b>	Negligible odour.
<b>pH:</b>	3.5-5.0
<b>Melting Point:</b>	Not available.
<b>Boiling Point:</b>	Not available.
<b>Solubility in water:</b>	7mg/L (10C), independent of pH (triticonazole). Cypermethrin is practically insoluble in water.
<b>Specific Gravity (Water = 1):</b>	1.06 g/mL at 20C
<b>Decomposition Temp:</b>	Not determined
<b>Flashpoint:</b>	>85°C

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under normal conditions of use.
<b>Conditions to Avoid:</b>	Extreme heat or fire.
<b>Incompatible Materials:</b>	Cypermethrin is incompatible with alkaline materials.
<b>Hazardous Decomposition Products:</b>	Oxides of carbon and nitrogen and compounds of chlorine may be given off when exposed to extreme heat or fire.
<b>Hazardous Reactions:</b>	None recorded.
<b>Polymerisation:</b>	None recorded.

## 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

<b>Acute Health Effects:</b>	<b>Swallowed:</b> Harmful if swallowed. <b>Eye:</b> Will irritate the eyes. <b>Skin:</b> Will irritate the skin. Facial skin contact may cause temporary numbness. Low dermal toxicity. <b>Inhaled:</b> Low inhalation toxicity.
<b>Chronic Health Effects:</b>	Triticonazole and cypermethrin are non-carcinogenic and non-genotoxic.

## 12. ECOLOGICAL INFORMATION

<b>Ecological Effects:</b>	<u>Bird toxicity</u> (Triticonazole): LD50: >2000 mg/kg bobwhite quail, red-legged partridge, grey partridge, domestic pigeon, ring-necked pheasant. (Cypermethrin): LD50: >10000 mg/kg mallard ducks; >2000 mg/kg chickens <u>Fish toxicity</u> (Triticonazole): LC50: >10mg/L (96hr) rainbow trout and bluegill sunfish. (Cypermethrin): LC50: 0.69 micrograms/L (96hr) rainbow trout; 2.37 micrograms/L sheepshead minnow. Under field conditions, fish are not at risk from normal agricultural usage.
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#### Daphnia toxicity

(Triticonazole): LC50: >9.3mg/L (48hr) Daphnia magna

(Cypermethrin):

LC50: 0.15 micrograms/L (48hr) Daphnia magna

#### Other

(Triticonazole): Green alga *Selenastrum capricornutum* EC50 (96hr) >1.0 mg/L

Triticonazole is non-toxic to worms.

(Cypermethrin): LD50: 0.035 micrograms/bee (24hr) (oral); 0.02 micrograms/bee (topical).

Cypermethrin is highly toxic to bees in laboratory tests, but use as a seed treatment according to label directions should not put hives at risk. DO NOT feed treated seed or otherwise expose wildlife or domestic birds. DO NOT contaminate streams, rivers, or waterways with the chemical, used containers, treated seed or bags which have held treated seed.

#### **Toxicology:**

#### Animal toxicity data

Oral LD<sub>50</sub> (rat) = >2000 mg/kg (Triticonazole component)  
=250-4150 mg/kg (Cypermethrin component)

Dermal LD<sub>50</sub> (rat) >2000 mg/kg (Triticonazole component)  
(rabbit) >2460 mg/kg (Cypermethrin component)

Inhalation LC50 (mg/L) - 4 hr: 1.4 (species:rat) (Triticonazole component)

Inhalation LC50 (mg/L) - 4 hr: 2.5 (species:rat) (Cypermethrin component)

Eye irritation: slightly irritating (species: rabbit) (Triticonazole component)

Eye irritation: slightly irritating (species: rabbit) (Cypermethrin component)

Skin irritation: not irritating (species: rabbit)

Sensitisation: not a sensitiser (species: guinea pig) (triticonazole)

Sensitisation: may be a weak skin sensitiser (species: guinea pig) (cypermethrin)

Triticonazole and cypermethrin are non-genotoxic and non-carcinogenic.

#### **Persistence/Degradability:**

Triticonazole is persistent in soil. Cypermethrin has moderate persistence in soils. The biological degradation of cypermethrin is rapid. It is unlikely to cause groundwater contamination.

#### **Mobility:**

Not determined

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### **13. DISPOSAL CONSIDERATIONS**

#### **Disposal Method(s):**

When returnable container is empty or contents no longer required return it to the point of purchase. For non-returnable containers, triple or preferably pressure rinse containers before disposal. Add rinsings to treatment mixture. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler 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. Dispose of waste product through a reputable waste contractor. If disposal of unwanted treated seed is necessary, bury seed below 500mm in a disposal pit, specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.

#### **Precautions for Landfill or Incineration:**

Product and empty containers should not be burnt.

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### **14. TRANSPORT INFORMATION**

#### **UN Number:**

None allocated.

#### **UN Proper Shipping Name:**

None allocated.

#### **DG Class & Subsidiary Risk:**

None allocated.

#### **Packing Group:**

None allocated.

#### **EPG/GTEPG:**

Not applicable.

#### **Special Precautions for User:**

None available.

#### **HazChem Code:**

None allocated.

#### **Other Information:**

Not classified as a dangerous good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

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### **15. REGULATORY INFORMATION**

#### **Poisons Schedule:**

S5

#### **Additional Information:**

APVMA product number: 57978

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## 16. OTHER INFORMATION

**Date of Preparation:** March, 2006  
**Revision Date:** August, 2008  
**Revision Number:** 10  
**Revision Summary:** Rev 1 - Update of Chemtura contact details

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**~END OF SAFETY DATA SHEET~**