



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Caesar Seed Treatment
Other Names: Triticonazole/cypermethrin
Product Codes: None allocated
Recommended Use: Seed treatment for the control or suppression of various diseases in wheat and barley, and for the protection against various pests of stored wheat and barley.
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-<30% (200g/L)
Cypermethrin	Cypermethrin	52315-07-8	<10% (4g/L)
	Other ingredients (non-hazardous)	(non-hazardous)	>60% (876g/L)

Note: Australian and US Patents apply.

4. FIRST AID MEASURES

Ingestion: Wash out mouth with water. Do not induce vomiting. If swallowed, immediately contact a doctor or Poisons Information Centre (Australia 131 126; New Zealand 03 4747 000) and follow advice

given. Keep under medical supervision.
Inhalation: If inhaled, remove to fresh air and keep at rest. Obtain medical advice if at all worried.
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.
Advice to Doctor: If poisoning occurs contact a doctor or Poison Information Centre. Phone Australia 131 126; New Zealand 03 4747 000.

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, instil 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.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Carbon dioxide, water spray, dry agent, foam.
Hazards from Combustion Products: 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

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: 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.

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 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.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

National Exposure Standards:	There are no exposure standards allocated by the National Occupation Health & Safety Commission (Worksafe Australia) for the product or its ingredients. The exposure standard for triticonazole set by Chemtura Australia Pty Ltd is 4 mg/m ³ . NOHSC has established an exposure standard for dust of 10mg/m ³ Time Weighted Average (inspirable dust). (Exposure to dust may occur during handling of grain and treated seed).
Biological Limit Values:	Not determined.
Engineering Controls:	Control process conditions to avoid contact. Use local exhaust ventilation during manufacture. Use in a well-ventilated area only.
Personal Protective Equipment (PPE):	Respirator type (AS 1716): 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. Workers exposed to grain dust should wear a disposable dust mask. Eye Protection: Safety goggles or face shield. Glove type: Elbow-length PVC gloves. Clothing : Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and washable hat. Other Information : Wash hands after use. After each day's use, wash gloves, goggles, respirator face piece and contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous blue suspension concentrate.
Odour:	Negligible odour.
pH:	3.0-5.0
Melting Point:	Not available.
Boiling Point:	Not available.
Solubility:	7mg/L (10°C) in water, independent of pH (triticonazole). Cypermethrin is practically insoluble in water.
Specific Gravity (Water = 1):	1.08g/mL at 20°C.
Decomposition Temp:	Not available.
Flashpoint:	Not determined.

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions of use.
Conditions to Avoid:	Extreme heat or fire.
Incompatible Materials:	Cypermethrin is incompatible with alkaline materials.
Hazardous Decomposition Products:	None recorded.
Hazardous Reactions:	None recorded.
Polymerisation:	None recorded

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	
Acute Health Effects:	Ingestion: Low oral toxicity. Eye contact: Will irritate the eyes. Skin contact: Will irritate the skin. Facial skin contact may cause temporary

numbness. Low dermal toxicity.

Inhaled: Low inhalation toxicity.

Chronic Health Effects:

Chronic health effects are not known.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Toxicology:

Animal toxicity data:

Oral LD₅₀ (rat) = >2000 mg/kg (Tritconazole component)
=250-4150 mg/kg (Cypermethrin component)
Dermal LD₅₀ (rat) =>2000 mg/kg (Tritconazole component)
(rabbit) =>2460 mg/kg (Cypermethrin component)

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

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

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

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

Skin irritation: not irritating (species: rabbit) (Tritconazole component)

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

Sensitisation: not a sensitiser (species: guinea pig) (Tritconazole component)

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

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

Information on Ecological Effects:

Bird toxicity

(Tritconazole): 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

Fish toxicity

(Tritconazole): 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.

Daphnia toxicity

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

(Cypermethrin):

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

Other

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

Tritconazole 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.

Persistence/Degradability:

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

13. DISPOSAL CONSIDERATIONS

Disposal Method(s):

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:

Empty containers and product should not be burnt.

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: None available.

15. REGULATORY INFORMATION

Poisons Schedule: S5
Additional Information: APVMA product number: 57972

16. OTHER INFORMATION

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

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