

MATERIAL SAFETY DATA SHEET

STATEMENT OF HAZARDOUS NATURE:
Hazardous according to the criteria of NOHSC.

COMPANY DETAILS:

Syngenta Crop Protection Pty Limited
ABN 33 002 933 717
Level 1, 2-4 Lyon Park Road,
NORTH RYDE, NSW, 2113

Telephone No.: (02) 8876 8444
24 Hours Emergency No.: 1 800 033 111

IDENTIFICATION

PRODUCT NAME: TILT XTRA® Fungicide

Formulation type:	Emulsifiable Concentrate	UN Number:	None allocated
Active Ingredients:	Propiconazole + Cyproconazole	Dangerous Goods Class/ and Subsidiary Risk:	None allocated
Product Code No.:	A-10506A	Packaging Group	None allocated
Chemical type:	Triazole	Hazchem Code:	None allocated
Poisons Schedule:	6	EPG/IERG:	None allocated

USE: Fungicide for control of certain fungal diseases of wheat and barley.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance:	Yellow / orange liquid	Flash point:	63°C
Odour:	Sweetish, aromatic	Flammability:	Not flammable
Specific gravity (H₂O=1)	1.08 – 1.12 (20°C)	Behaviour in water:	Miscible
Vapour pressure (25°C):	Propiconazole: 5.6 x 10 ⁻⁵ Pa Cyproconazole: 2.6 x 10 ⁻⁵ Pa		

OTHER PROPERTIES

Viscosity:	15.9 mPa.s (20°C, 10 - 200 s ⁻¹)	Combustibility:	C-1, Combustible
Volatility:	Not known	Corrosiveness:	Non-corrosive
Explosive properties:	Not explosive	Oxidising properties:	Not an oxidiser
pH (1% aq. dilution):	6.5	Auto-ignition temp:	295°C

INGREDIENTS

	CAS No.	Content (%w/v)
Propiconazole technical		>25
to give propiconazole	131860-33-8	25
Cyproconazole (technical grade)	94361-06-5	>8
to give Cyproconazole	94631-07-6	8
1-methyl-2-pyrrolidone	872-50-4	10
alkylbenzene sulphonate		<10
fatty alcohol ethoxylate		<10
Other ingredients determined not to be hazardous		to 100

HEALTH HAZARD INFORMATION

HEALTH EFFECTS

ACUTE TOXICITY-

This product is unlikely to present a hazard during normal use (WHO Hazard Class III).

Swallowed:	NOT HARMFUL Tests on rats with a very similar product indicate the product is NOT HARMFUL following single doses of undiluted product. (LD ₅₀ = > 2000 mg/kg bw)
Dermal absorption:	NOT HARMFUL Tests on rats with a very similar product indicate the product is NOT HARMFUL due to skin contact following single doses of undiluted product. (LD ₅₀ = > 4000 mg/kg)

Inhaled: **NOT HARMFUL**
 Tests on rats using technical grade propiconazole and cyproconazole indicate the product is NOT HARMFUL due to inhalation of the undiluted product.
 (Propiconazole - LC₅₀ (4 hr) > 5800 mg/m³;
 Cyproconazole - LC₅₀ (4 hr) > 5645 mg/m³)

Irritation - (based on studies with rabbits)

Eye: **IRRITANT**
 Skin: **IRRITANT**

Sensitisation (skin allergy potential)
NOT A SENSITISER

Poisoning Symptoms

No cases of human poisoning are on record. The poisoning symptoms observed for laboratory animals were non-specific.

CHRONIC TOXICITY -

Propiconazole technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence was obtained of mutagenic, neurotoxic, carcinogenic, teratogenic or reproductive effects.

Cyproconazole technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, teratogenic or reproductive effects was obtained. Carcinogenicity was investigated in rats and mice. Cyproconazole was not carcinogenic to rats. Treatment-related liver tumours were seen in mice, which were non-genotoxic and demonstrated a clear threshold response. The mechanism for these liver tumours is not of a type considered to be relevant to human exposure.

FIRST AID

In case of poisoning by any exposure route contact a doctor or Poisons Information Centre. Phone 131 126.

Swallowed: Rinse mouth with water. Give plenty of water to drink. If vomiting occurs give further water. Seek medical advice.
 Eye: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. If irritation occurs seek medical advice.
 Skin: Remove contaminated clothing and wash affected areas thoroughly with soap and water. If irritation occurs seek medical advice.
 Inhaled: Move affected person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until recovered. Seek medical advice if effects persist.

ADVICE TO DOCTOR

No specific antidote exists. Treat symptomatically.

PRECAUTIONS FOR USE

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

EXPOSURE STANDARDS

No exposure standards have been set for the components of this product.

Exposure Potential -

Swallowing is unlikely under normal conditions of usage. Significant skin uptake does not occur. This product is diluted with water prior to use as a spray. This diluted form is less toxic by all routes of exposure.

Re-entry Period - Do not enter treated areas without protective clothing until the spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist and chemical resistant gloves. Clothing must be laundered after each day's use.

ENGINEERING CONTROLS

In the Workplace: ensure ventilation is adequate. Keep containers closed when not in use. No special engineering controls are requirements. Product is used outdoors.

PERSONAL PROTECTION

Manufacture, Packaging and Transport: Avoid eye and skin contact. Wear overalls, chemical goggles and PVC gloves. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

Preparation and Use of Product: Harmful if swallowed. May irritate the nose and throat. Will damage the eyes and skin. Avoid contact with eyes and skin. Avoid inhaling vapour.

When opening the container and preparing spray wear:

- cotton overalls buttoned to the neck and wrist,
- a washable hat,
- elbow length PVC gloves,
- goggles and
- disposable fume mask.

When using the prepared spray wear:

- cotton overalls buttoned to the neck and wrist,
- a washable hat and
- elbow length PVC gloves.

If clothing becomes contaminated with product or wet with spray, remove clothing immediately. If product on skin, immediately wash area with soap and water.

If product in eyes, wash it out immediately with water.

Wash hands after use. After each day's use wash gloves and contaminated clothing.

FLAMMABILITY

This product is not flammable.

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT

Store in tightly sealed original containers in a dry secure place away from fertilisers, seed, feed and food. Store out of direct sunlight. Keep out of reach of children, unauthorised persons and animals.

SPILLS AND DISPOSAL

In case of spillage it is important to take all steps necessary to:

- Avoid eye and skin contact and inhalation of dust.
- Avoid contamination of waterways.

Procedure for spill:

- (1) Keep all bystanders away.
- (2) Wear full length clothing and PVC gloves.
- (3) Reposition any leaking containers so as to minimise further leakage.
- (4) Dam and absorb spill with an absorbent material (e.g. sand or soil).
- (5) Shovel the absorbed material into drums.
- (6) Disposal of the absorbed material will depend upon the extent of the spill.
 - For quantities up to 50L of product bury in a secure landfill site.
 - For quantities greater than 50L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.
- (7) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

Dispose of empty, used containers by:

- (1) Rinse containers before disposal. Add rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site.
- (2) Dispose of rinsed, empty containers at 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.

FIRE/EXPLOSION HAZARD

This product is not flammable or explosive. Extinguish warehouse and factory fires using water fog, fine-water spray, foam or dry agent (carbon dioxide or chemical powder). During a fire this product may release smoke and hazardous decomposition products. When fighting a major fire wear SCBA and structural firefighters uniform. Do not allow fire-water to enter drains.

OTHER INFORMATION

Propiconazole technical is toxic to fish, aquatic invertebrates and green algae; and practically non-toxic to birds and bees.

Acute toxicity studies with catfish, rainbow trout, carp, bluegill, golden orfe and the marine spot gave LC₅₀ values from 2.2 to 6.8 mg/L. The EC₅₀ for *Daphnia magna* and the Mysid shrimp were 4.8 mg/L and 0.5 mg/L, respectively. Toxicity studies on freshwater algae and two diatom species showed EC₅₀ values ranging from 0.02 mg/L to 13.6 mg/L.

Cyproconazole technical is highly toxic to green algae, slightly toxic to fish and *Daphnia*, slightly to moderately toxic to birds and practically non-toxic to earthworms.

[EC₅₀ (96 h), green algae = 0.077 mg/L].

Note: This product is a registered agricultural chemical and must 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 Federal health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

CONTACT POINT: Regulatory Affairs Manager - Crop Protection - (02) 8876 8444
24 HOURS EMERGENCY CONTACT: 1 800 033 111

This Material Safety Data Sheet 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.