SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	**TECTO® Flowable SC Fungicide**
Other Names:	**Proper shipping name:** Environmentally Hazardous Substance, Liquid, N.O.S. (thiabendazole) **Applicable only for marine and air transport** **Product code:** A10466C
Recommended Use:	Fungicide for the control of dry rot, gangrene and silver scurf of potato tubers and specific rots and moulds of fruit and fungal diseases of bulbs, corms, turf and mushrooms
Company Details:	**Syngenta Crop Protection Pty Limited** ABN 33 002 933 717
Address:	**Level 1, 2-4 Lyonpark Road** **MACQUARIE PARK NSW 2113** **AUSTRALIA**
Telephone Number:	**(02) 8876 8444**
Emergency Telephone Number:	**24 hours - 1800 033 111**

Section 2: HAZARDS IDENTIFICATION

Hazard Classification:	Not classified as a hazardous chemical according to the Australian criteria for the classification of chemicals
Risk Phrases:	–
Safety Phrases:	–

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE	
Chemical Identity of Pure Substance:	thiabendazole
Synonym:	MK360
CAS Number:	148-79-8

MIXTURE

Chemical Identity of Ingredients	**CAS No**	**Proportion (% w/v)**
thiabendazole	148-79-8	50
1,2-propanediol	57-55-6	5 - <10
alkyl naphthalene sulfonic acid, sodium salt	68909-82-0	1 - <5
Other ingredients determined not to be hazardous	-	to 100

Section 4: FIRST AID MEASURES

Description of Necessary First Aid Measures:	In case of poisoning by any exposure route contact a doctor or Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment.	
	Ingestion:	If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting.
	Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.
	Skin contact:	Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.
	Inhalation:	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a doctor or Poisons Information Centre immediately.
Poisoning Symptoms:	Poisoning symptoms in laboratory animals were non-specific	
Medical Advice:	There is no specific antidote available. Treat symptomatically.	

Section 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	*Extinguishing media - small fires* Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. *Extinguishing media - large fires* Use water spray or alcohol-resistant foam. Do not use a solid water stream as it may scatter and spread fire.
Hazards from Combustion Products:	As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.
Special Protective Precautions and Equipment for Fire Fighters:	In the event of fire, wear self-contained breathing apparatus. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

Section 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	In case of spillage it is important to take all steps necessary to: • Avoid eye and skin contact • Avoid contamination of waterways
Methods and Materials for Containment and Clean Up:	**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 (eg sand or soil) (5) Shovel the absorbed spill into drums (6) Disposal of the absorbed material will depend upon the extent of the spill • For quantities up to 50 L of product bury in a secure landfill site • For quantities greater than 50 L 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 spill area with detergent and water and rinse with the smallest volume of water practicable

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling:	Harmful if absorbed by skin contact or swallowed. Avoid contact with eyes and skin. Wash hands after use.
Conditions for Safe Storage:	Store in closed original container in a cool, well ventilated area as cool as possible. DO NOT store for prolonged periods in direct sunlight.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

	Component	*Exposure limit*	*Value type*
National Exposure Standards:	1,2-propanediol	10 mg/m^3 Particulates 150 ppm 474 mg/m^3 Total (vapour & particulates)	8h TWA
Syngenta Exposure Standards:	thiabendazole	10 mg/m^3	8h TWA
Biological Limit Values:	No biological limits allocated		

Engineering Controls:	Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne mists or vapours are generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit. Where necessary, seek additional occupational hygiene advice.

Personal Protective Equipment:	
Protective measures:	The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.
Respiratory protection:	No personal respiratory protective equipment normally required. If airborne mists or vapours are generated in enclosed areas, use local exhaust ventilation controls. A particulate filter respirator may be necessary until effective technical measures are installed.
Hand protection:	Avoid contact with skin. Wash hands after use.
Eye protection:	Avoid contact with eyes. If product in eyes, wash it out immediately with water. Follow any site specific eye protection policies.
Skin and body protection:	Avoid contact with skin and eyes. Wash hands after use.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	white to beige liquid	**Boiling Point:**	95°C
Odour:	weak, aromatic	**Solubility:**	miscible in water
pH:	4 - 8 at 1 % w/v	**Specific Gravity or Density:**	1.17 g/cm^3 (20°C)
Vapour Pressure:	4.6 x 10^{-7} Pa at 25°C (thiabendazole)		

Flash Point:	>95°C (closed cup)	**Oxidising Properties:**	Not known
Upper and Lower Flammable (Explosive) Limits in Air:	Not known	**Combustibility:**	Not combustible
Ignition Temperature:	650°C (auto-ignition)	**Corrosiveness:**	Not corrosive to stainless steel and HDPE; slightly corrosive to tin plate, iron steel and galvanised sheet metal
Explosive Properties:	Not explosive		

Section 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Incompatible Materials:	None known.
Hazardous Decomposition Products:	Combustion or thermal decomposition will evolve toxic and irritant vapours.
Hazardous Reactions:	None known. Hazardous polymerisation does not occur.

Section 11: TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:		
Acute:	**Oral toxicity:**	**LOW TOXICITY** Tests on rats indicate this product has a low toxicity following single doses of a similar product. (LD_{50} > 5000 mg/kg)
	Dermal toxicity:	**LOW TOXICITY** Tests on rats indicate this product has a low toxicity following skin contact with a similar product (LD_{50} >2000 mg/kg)
	Inhalation:	**LOW TOXICITY** Tests on rats indicate this product has low toxicity due to inhalation of a similar formulation and the active ingredient. (LC_{50} (4hour) >6.84 mg/L for the active ingredient) (LC_{50} (4hour) >5.8 mg/L for a 100 WP formulation)
	Skin irritation:	**NON IRRITANT**
	Eye irritation:	**NON IRRITANT**
	Sensitisation:	**NOT A SENSITISER**
Chronic:	**Thiabendazole technical** has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, carcinogenic, teratogenic or reproductive effects was obtained.	

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity	*Toxicity to fish:*	**Moderately toxic to fish** *Salmo trutta* (trout): LC_{50} = 1.3 mg/L, 96 h Based on results with a similar product.
	Toxicity to daphnia and other aquatic invertebrates:	**Moderately toxic to aquatic invertebrates** *Daphnia magna* (Water flea): EC_{50} = 1.4 mg/L, 48 h Based on results with a similar product.
	Toxicity to algae:	**Moderately toxic to algae** *Pseudokirchneriella subcapitata* (green algae): E_rC_{50} = 45 mg/L, 72 h; E_bC_{50} = 5.4 mg/L, 72 h
Persistence and Degradability:	Thiabendazole is persistent in water and soil.	
Mobility	Thiabendazole has low mobility in soil.	
Environmental Fate (Exposure):	Incorporated into organic molecules.	
Bioaccumulative Potential	Thiabendazole does not bioaccumulate.	

Section 13: DISPOSAL CONSIDERATIONS

Disposal Methods and Containers:	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 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 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.
Special Precautions for Landfill or Incineration:	Not applicable

Section 14: TRANSPORT INFORMATION

LAND TRANSPORT ADG	Not dangerous goods in Australia		
UN Number:	None allocated	**Packing Group:**	None allocated
UN Proper Shipping Name:	None allocated	**Special Precautions for User:**	None allocated
Class:	None allocated	**Hazchem Code:**	None allocated
Subsidiary Risk:	None allocated		

SEA TRANSPORT IMDG			
UN Number:	3082	**Subsidiary Risk:**	None allocated
UN Proper Shipping Name:	Environmentally hazardous substance, liquid, N.O.S. (thiabendazole)	**Packing Group:**	III
Class:	9	**Marine Pollutant:**	Marine pollutant

AIR TRANSPORT IATA - DGR			
UN Number:	3082	**Subsidiary Risk:**	None allocated
UN Proper Shipping Name:	Environmentally hazardous substance, liquid, N.O.S. (thiabendazole)	**Packing Group:**	III
Class:	9		

Section 15: REGULATORY INFORMATION

APVMA Product Number:	49910
Poisons Schedule (SUSDP):	Exempt

Section 16: OTHER INFORMATION

Date of preparation or last revision: May 2010
Source of Data: The information provided in this SDS is sourced from Syngenta internal studies which have been conducted according to Regulatory requirements including OECD and CIPAC Guidelines and EC Directives. 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.
Note: This product is a registered agricultural chemical and must, therefore, be used in accordance with the container label directions
CONTACT POINT: Regulatory Affairs Manager, Syngenta Crop Protection Pty Limited (02) 8876 8444 **24 HOURS EMERGENCY CONTACT: 1800 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 SDS 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.