

SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	DACONIL® WEATHER STIK® Turf Fungicide
Other Names:	Proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (chlorothalonil) Applicable only for marine and air transport
	Product code: A12531M
Recommended Use:	Fungicide for control of diseases in turf
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:	Classified as a hazardous chemical according to the Australian criteria for the classification of chemicals
Risk Phrases:	R20/22 Harmful by inhalation and if swallowed. R37 Irritating to respiratory system. R40 Limited evidence of a carcinogenic effect. R43 May cause sensitisation by skin contact.
Safety Phrases:	—

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE		
Chemical Identity of Pure Substance:	Chlorothalonil	
Synonym:	SYN 130057, R 44686, Tetrachloroisophthalonitrile	
CAS Number:	1897-45-6	

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/v)
Chlorothalonil	1897-45-6	72
Other ingredients determined not to be hazardous	-	to 100

Section 4: FIRST AID MEASURES

Description of Necessary First Aid Measures:	<p>In case of poisoning by any exposure route get to a doctor or hospital quickly. Phone Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment.</p> <p>Ingestion: If swallowed, seek medical advice immediately. DO NOT induce vomiting</p> <p>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</p> <p>Skin contact: Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a doctor. Wash contaminated clothing before reuse</p> <p>Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Information Centre immediately</p>
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:	<p><i>Small fires</i> Use water spray, alcohol resistant foam, dry chemical or carbon dioxide</p> <p><i>Large fires</i> Use alcohol resistant foam or water spray DO NOT use a solid water stream as it may scatter and spread fire</p>
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:	Wear full protective clothing and self contained breathing apparatus
Further Information:	DO NOT allow runoff 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 <ul style="list-style-type: none">• Avoid eye and skin contact• Avoid contamination of waterways
Methods and Materials for Containment and Clean Up:	Procedure for spill <ol style="list-style-type: none">(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<ul style="list-style-type: none">• 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:	Attacks eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. When preparing spray and using the prepared spray wear: <ul style="list-style-type: none">• cotton overalls buttoned to the neck and wrist• a washable hat• elbow-length PVC gloves• goggles• disposable mist face mask covering mouth and nose 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. 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 and goggles and contaminated clothing.
Conditions for Safe Storage:	Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

	<i>Component</i>	<i>Exposure limit</i>	<i>Value type</i>
National Exposure Standards:	Propylene glycol	0.474 mg/m ³	TWA
		150 ppm	TWA
Syngenta Exposure Standards:	Chlorothalonil	0.1 mg/m ³	TWA
Biological Limit Values:	No biological limit allocated		
Engineering Controls:	No special requirements. Product is used outdoors		
Personal Protective Equipment:	<p>Attacks eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. When preparing spray and using the prepared spray wear:</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist • a washable hat • elbow-length PVC gloves • goggles • disposable mist face mask covering mouth and nose <p>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. 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 and goggles and contaminated clothing.</p>		

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light grey viscous liquid	Boiling Point/Range:	>100°C
Odour:	Slightly pungent	Freezing/Melting Point:	- 5°C
pH:	6.5 - 9.5 (1% aqueous dispersion)	Solubility:	Dispersible
Vapour Pressure:	Not available	Specific Gravity or Density:	1.345 g/cm ³
Vapour Density:	Not available		

Flash Point:	Does not flash	Explosive Properties:	Not explosive
Upper and Lower Flammable (Explosive) Limits in Air:	Not available	Oxidising Properties:	Not oxidising
Ignition Temperature:	Not available	Combustibility:	Combustible
		Corrosiveness:	Not corrosive

Section 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under ambient temperature and pressure
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 polymerization does not occur

Section 11: TOXICOLOGICAL INFORMATION

Health Effects from Likely Routes of Exposure:

Acute:	Oral toxicity:	HARMFUL Tests on rats indicate this product is harmful following single doses of undiluted product. (LD ₅₀ 2000 mg/kg)
	Dermal toxicity:	LOW TOXICITY Tests on rabbits indicate this has a low toxicity following skin contact with undiluted product (LD ₅₀ >2000 mg/kg)
	Inhalation:	HARMFUL Tests on rats indicate this product is harmful due to inhalation of undiluted product. (LC ₅₀ (4 h) 0.86-1.5 mg/L air)
	Skin irritation:	SLIGHT IRRITANT
	Eye irritation:	SEVERE IRRITANT
	Sensitisation:	SENSITISER
Chronic:	Chlorothalonil technical has been extensively tested in mammals and in test-tube systems. No evidence of mutagenic, neurotoxic, teratogenic or reproductive effects was obtained. Subchronic toxicity studies in dogs have shown kidney toxicity, and chronic toxicity studies in rats and mice have shown kidney and forestomach tumours at high doses. This is not considered to be a risk to humans when handled and used as directed on the label.	

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	<i>Toxicity to fish:</i>	Very highly toxic to fish <i>Oncorhynchus mykiss</i> (rainbow trout): LC ₅₀ = 61 µg/L , 96 h (similar formulation)
	<i>Toxicity to daphnia and other aquatic invertebrates:</i>	Highly toxic to aquatic invertebrates <i>Daphnia magna</i> (Water flea): EC ₅₀ = 180 µg/L, 48 h (similar formulation)
	<i>Toxicity to algae:</i>	Highly toxic to algae <i>Pseudokirchneriella subcapitata</i> (green algae): E _r C ₅₀ = 0.24 mg/L, 72 h (derived from components) <i>Pseudokirchneriella subcapitata</i> (green algae): E _b C ₅₀ = 0.13 mg/L, 72 h (derived from components)
	<i>Toxicity to soil dwelling organisms:</i>	Slightly toxic to earthworms <i>Eisenia foetida</i> (earthworm): LC ₅₀ = 881 mg/kg, 14 d
	<i>Bees:</i>	Non toxic to bees: Oral LD ₅₀ > 200 µg/bee, Contact LD ₅₀ >200 µg/bee
	Persistence and Degradability:	Chlorothalonil is not persistent in soil or water
Mobility	Chlorothalonil has low to slight mobility in soil	
Environmental Fate (Exposure):	Chlorothalonil is incorporated into organic molecules	
Bioaccumulative Potential:	Chlorothalonil has low potential to 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, triple rinse, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. Empty containers and product must not be burnt.
Special Precautions for Landfill or Incineration:	Not applicable

Section 14: TRANSPORT INFORMATION

LAND TRANSPORT ADG		Not a dangerous good 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. (chlorothalonil)	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. (chlorothalonil)	Packing Group:	III
Class:	9		

Section 15: REGULATORY INFORMATION

APVMA Product Number:	56777
Poisons Schedule (SUSDP):	S6

Section 16: OTHER INFORMATION

Date of preparation or last revision: November 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.

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