SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	MEDALLION TURF FUNGICIDE
Other Names:	Proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (fludioxonil) Applicable only for marine and air transport
	Product code: A17856B
Recommended Use:	For the control of Anthracnose, Brown Patch, Dollar Spot, Helminthosporium Disease and Winter Fusarium in turf
Company Details:	Syngenta Australia Pty Ltd 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:	Fludioxinil
Synonym:	CGA173506
CAS Number:	131341-86-1

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/v)
Fludioxonil	131341-86-1	12.5
Other ingredients determined not to be hazardous	-	to 100

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 the 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 doctor. Wash contaminated clothing before re-use.
	Inhalation:	Move the victim 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 alcohol resistant foam or water spray. 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. Combustion or thermal decomposition will evolve toxic and irritant vapors. Exposure to decomposition products may be a hazard to health.
Precautions and Special Protective Equipment for Fire Fighters:	Wear full protective clothing and self-contained breathing apparatus.
Further Information:	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 toAvoid eye and skin contactAvoid contamination of waterways	
Methods and	Procedure for spill	
Materials for	(1) Keep all bystanders away	
Containment and Clean Up:	(2) Wear goggles, half face-piece respirator with combined dust and vapour cartridge, full length waterproof clothing and elbow-length PVC gloves	
	(3) Reposition any leaking containers so as to minimise leakage.	
	(4) Dam and absorb spill with an absorbent material (eg 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 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:	 When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) Wash hands after use. After each day's use, wash 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

	Component	Exposure limit	Value type
National Exposure Standards:	DL-propanediol-(1,2)	10 mg/m ³ (particulates) 150 ppm, 470 gm/m ³ (total vapour and particulates)	8 h TWA
Syngenta Exposure Standards:	Fludioxonil	10 mg/m ³	
Biological Limit Values:	No biological limit 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 vapors 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:	 When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) Wash hands after use. After each day's use, wash contaminated clothing. 		

(Explosive) Limits in

Air:

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

	Beige grey to grey	Specific gravity:	1.06 g/cm ³ at 20°C
	green liquid suspension	Freezing/Melting Point:	No data available
Odour:	No data available	Boiling Point/Range:	No data available
pH:	5 to 9 at 1% w/v	Solubility:	No data available
Flash point:	>100°C at 99.2 kPa Pensky-Martens cc	Auto ignition temperature	610 <u>+</u> 5°C
Upper and Lower Flammable	Not flammable	Explosive properties:	Not explosive

Section 10: STABILITY AND REACTIVITY

Oxidizing properties

Combustibility:

Not oxidizing

Not combustible

Chemical Stability:	Stable at normal temperatures and storage conditions
Conditions to Avoid:	None known
Incompatible Materials:	None known
Hazardous Decomposition Products:	Combustion or thermal decomposition will evolve toxic and irritant vapors.
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 undiluted product $LD_{50} = 5,000 \text{ mg/kg}$		
	Dermal toxicity:	LOW TOXICITY Tests on rats indicate this product has a low toxicity following skin contact with undiluted product $LD_{50} = >5,000 \text{ mg/kg}$		
	Inhalation:	LOW TOXICITY Tests on rats indicate this product is not harmful due to inhalation of undiluted product LC_{50} (4 hours) = >2.59 mg/L		
	Skin irritation:	NON IRRITANT		
	Eye irritation:	SLIGHT IRRITANT		
	Sensitisation:	NOT A SENSITISER		
Chronic:	Fludioxonil technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, carcinogenic, teratogenic or reproductive effects was obtained. Liver and kidney toxicity occur at high dose levels.			

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	Moderately toxic to fish Rainbow trout (<i>Oncorhynchus mykiss</i>) LC ₅₀ (96 hours) = 5.4 mg/L
	Slightly toxic to aquatic invertebrates Water flea (<i>Daphnia magna</i>) EC ₅₀ (48 hours) = 30 mg/L
	Moderately toxic to algae Green algae <i>(Pseudokirchneriella subcapitata)</i> ErC ₅₀ (96 hours) = 5.4 mg/L
	Non toxic to bees Bees (Apis mellifera) LC_{50} (2 days) = >1,000 µg/kg (contact and oral)
	Practically non-toxic to earthworms <i>Eisenia foetida</i> (earthworm): LC ₅₀ = 667 mg/kg
Persistence and Degradability:	Fludioxonil is not readily biodegradable
Mobility:	Fludioxonil is immobile in soil
Environmental Fate (Exposure):	Fludioxonil is stable in water, degradation half-life 450 to 700 days Fludioxonil is not persistent in soil, degradation half- life 14 days
Bioaccumulative Potential:	Fludioxonil 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, 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 Not a dangerous good in Australia ADG				
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. (fludioxonil)	Packing Group:	III
Class:	9	Marine Pollutant:	Marine pollutant

AIR TRANSPORT ICAO / IATA			
UN Number:	3082	Subsidiary Risk:	None allocated
UN Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (fludioxonil)	Packing Group:	
Class:	9		

Section 15: REGULATORY INFORMATION

APVMA Product Number:

69590

S5

Poisons Schedule (SUSDP):

Section 16: OTHER INFORMATION

Date of preparation or last revision: November 2014

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 Australia Pty Ltd (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.

DISCLAIMER

This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. Syngenta's liability for breach of the express or any non-excludable implied warranty is limited to product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which Syngenta shall have no liability.

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