

SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	HIGRAN[®] Turf Miticide
Other Names:	Proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (diafenthiuron) Applicable only for marine and air transport
	Product code: A7630 / A7630A
Recommended Use:	Miticide for control of Couchgrass Mite 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:	Classified as a hazardous chemical according to the Australian criteria for the classification of chemicals
Risk Phrases:	R22 Harmful if swallowed; R23 Toxic by inhalation; R48/21/22 Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed;
Safety Phrases:	—

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE	
Chemical Identity of Pure Substance:	Diafenthiuron
Synonym:	CGA106630
CAS Number:	80060-09-9

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/v)
Diafenthiuron	80060-09-9	50
Glycerine	56-81-5	<10
Propylene glycol	57-55-6	<10
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 contact a doctor or 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 and show this container or label. 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 re-use.</p> <p>Inhalation: Move the victim 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. DO NOT use a solid water stream as it may scatter and spread fire</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). Combustion or thermal decomposition will evolve toxic and irritant vapours. Exposure to decomposition products may be a hazard to health.
Special Protective Precautions and Equipment for Fire Fighters:	<p>Wear full protective clothing and self-contained breathing apparatus.</p> <p>DO NOT allow runoff from fire fighting to enter drains or watercourses. Cool closed containers exposed to fire with water spray.</p>

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, elbow length chemical resistant gloves and disposable mist face mask covering mouth and nose(3) Re-position 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:	Harmful if swallowed or inhaled. Will irritate the eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When opening the container, mixing and loading the spray and using the prepared spray wear: <ul style="list-style-type: none">• cotton overalls buttoned to the neck and wrist (or equivalent clothing)• elbow length chemical resistant gloves• disposable mist face mask covering mouth and nose When using the prepared spray wear by low pressure hand wand, wear: <ul style="list-style-type: none">• cotton overalls over normal clothing, buttoned to the neck and wrist• elbow length chemical resistant gloves• disposable mist face mask covering mouth and nose Wash hands after use. After each day's use, wash gloves 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:	Propane-1,2-diol particulates only vapour and particulates	10 mg/m ³ 474 mg/m ³ 150 ppm	8 hour TWA 8 hour TWA 8 hour TWA
	Formaldehyde	1.2 mg/m ³	8 hour TWA
Syngenta Exposure Standards:	Diafenthiuron (skin)	0.2 mg/m ³	8 hour TWA
	Propane-1,2-diol particulates vapour and particulates	10 mg/m ³ 470 mg/m ³	8 hour TWA 8 hour TWA
Biological Limit Values:	No biological limits allocated		
Engineering Controls:	No special requirements. Product is used outdoors.		
Personal Protective Equipment:	<p>Harmful if swallowed or inhaled. Will irritate the eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When opening the container, mixing and loading the spray and using the prepared spray wear:</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist (or equivalent clothing) • elbow length chemical resistant gloves • disposable mist face mask covering mouth and nose <p>When using the prepared spray wear by low pressure hand wand, wear:</p> <ul style="list-style-type: none"> • cotton overalls over normal clothing, buttoned to the neck and wrist • elbow length chemical resistant gloves • disposable mist face mask covering mouth and nose <p>Wash hands after use. After each day's use, wash gloves and contaminated clothing.</p>		

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to dark beige liquid	Boiling Point/Range:	>90°C
Odour:	No data available	Melting Point/Range:	No data available
pH:	6-10 at 1% w/v	Solubility:	No data available
Relative Vapour Density:	No data available	Density:	1.03-1.07 g/cm ³ at 20°C
Vapour Pressure:	No data available	Viscosity, dynamic:	66.0-285 mPa.s at 40°C 82.3-293 mPa.s at 20°C
Surface tension:	42.3 mN/m at 20°C	Miscibility:	Miscible

Flash Point:	>100°C at 978.4 hPa DIN EN 22719	Oxidising Properties:	Not oxidising
Upper and Lower Flammable (Explosive) Limits in Air:	Not highly flammable	Combustibility:	Not combustible
Auto-ignition Temperature:	490°C	Corrosiveness:	Slightly corrosive to tin plate, galvanised sheet metal and sheet steel Not corrosive to stainless steel
Explosive Properties:	Not explosive		

Section 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Incompatible Materials:	No known incompatibilities
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 = 1,950 mg/kg)
	Dermal toxicity:	LOW TOXICITY Tests on rats indicate this product has a low toxicity following skin contact with a similar formulation (LD ₅₀ = >4,000 mg/kg)
	Inhalation:	TOXIC Tests on rats indicate this product is toxic due to inhalation derived from ingredients
	Skin irritation:	NON IRRITANT
	Eye irritation:	NON IRRITANT
	Sensitisation:	NOT A SENSITISER
Chronic:	Diafenthiuron technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence was obtained of mutagenic, teratogenic, neurotoxic or reproductive effects. In animal studies (rat, mouse, dog), prolonged exposure to diafenthiuron has been shown to produce lung damage. In mice, chronic oral administration has produced lung tumours at high dose levels. No adverse effects in humans are expected at levels below the occupational exposure limit and when the product is handled and used according to the label.	

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	<i>Toxicity to fish:</i>	Very highly toxic to fish <i>Lepomis macrochirus</i> (bluegill sunfish): LC ₅₀ = 0.46 µg/L, 96 h (based on test results obtained with similar product)
	<i>Toxicity to daphnia and other aquatic invertebrates:</i>	Very highly toxic to aquatic invertebrates <i>Daphnia magna</i> (Water flea): EC ₅₀ = 0.62 µg/L, 48 h (based on test results obtained with active ingredient)
Persistence and Degradability:	Diafenthiuron is not persistent in soil or water	
Mobility	Diafenthiuron is immobile in soil	
Bioaccumulative Potential:	Diafenthiuron bioaccumulates	

Section 13: DISPOSAL CONSIDERATIONS

Disposal Methods and Containers:	Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple or preferably pressure rinse containers before disposal. Add rinsings to the 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 deliver empty packaging to an approved waste management facility. If no facility is 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 Local, State or Territory government regulations. DO NOT burn empty containers or product.
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. (Difenthiuron)	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. (Difenthiuron)	Packing Group:	III
Class:	9		

Section 15: REGULATORY INFORMATION

APVMA Product Number:	68340
Poisons Schedule (SUSDP):	5

Section 16: OTHER INFORMATION

Date of preparation or last revision: January 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 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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