

## SAFETY DATA SHEET

### Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name:</b>	<b>GYMNAST<sup>®</sup> TURF MITICIDE</b>
<b>Other Names:</b>	<b>Proper shipping name:</b> Pesticide, Liquid, Toxic, N.O.S. (abamectin) <b>Product code:</b> A8612A
<b>Recommended Use:</b>	Miticide for the control of Couchgrass Mite in turf
<b>Company Details:</b>	<b>Syngenta Australia Pty Ltd</b> ABN 33 002 933 717
<b>Address:</b>	<b>Level 1, 2-4 Lyonpark Road</b> <b>MACQUARIE PARK NSW 2113</b> <b>AUSTRALIA</b>
<b>Telephone Number:</b>	<b>(02) 8876 8444</b>
<b>Emergency Telephone Number:</b>	<b>24 hours - 1800 033 111</b>

### Section 2: HAZARDS IDENTIFICATION

<b>Hazard Classification:</b>	Classified as a hazardous chemical according to the Australian criteria for the classification of chemicals
<b>Risk Phrases:</b>	R23/25 Toxic, toxic by inhalation and if swallowed R61 Toxic, may cause harm to the unborn child R36/37/38 Irritating to eyes, respiratory system and skin R45 Toxic, may cause cancer
<b>Safety Phrases:</b>	—

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE	
<b>Chemical Identity of Pure Substance:</b>	Abamectin
<b>Synonym:</b>	Avermectin, MK936
<b>CAS Number:</b>	65195-55-3, 65195-56-4

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/v)
Abamectin	65195-55-3, 65195-56-4	1.9
1-hexanol	111-27-3	10 - <30
1-methyl-2-pyrrolidone	872-50-4	10 - <30
2,6-di-t-butyl-4-methyl-phenol	128-37-0	<10
Other ingredients determined not to be hazardous	-	to 100

## Section 4: FIRST AID MEASURES

<b>Description of Necessary First Aid Measures:</b>	<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><b>Ingestion:</b> If swallowed, seek medical advice immediately and show this container or label. DO NOT induce vomiting.</p> <p><b>Eye contact:</b> 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><b>Skin contact:</b> 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><b>Inhalation:</b> 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.</p>
<b>Poisoning Symptoms:</b> <b>Medical Advice:</b>	<p>Dilatation of pupils, lack of coordination, tremors</p> <p>This material is believed to enhance GABA activity in animals. It is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic mectin exposure. Toxicity can be minimised by early administration of chemical absorbents (eg activated charcoal). If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parental fluid replacement therapy should be given, along with other required supportive measures as indicated by clinical signs, symptoms and measurements.</p>

## Section 5: FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media:</b>	<p><i>Extinguishing media - small fires</i> Use water spray, alcohol resistant foam, dry chemical or carbon dioxide extinguisher. DO NOT use a solid water stream as it may scatter an spread fire.</p> <p><i>Extinguishing media - large fires</i> Use alcohol resistant foam or water spray. DO NOT use a solid water stream as it may scatter an spread fire.</p>
<b>Hazards from Combustion Products:</b>	<p>This product contains combustible organic components that may burn and decompose during a fire producing dense black smoke containing hazardous products of combustion. Combustion products are toxic and /or irritant. Exposure to decomposition products may be a hazard to health</p>
<b>Special Protective Precautions and Equipment for Fire Fighters:</b>	<p>Wear full protective clothing and self-contained breathing apparatus</p>
<b>Further information:</b>	<p>DO NOT allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.</p>

## Section 6: ACCIDENTAL RELEASE MEASURES

<b>Emergency Procedures:</b>	In case of spillage it is important to take all steps necessary to <ul style="list-style-type: none"> <li>• Avoid eye and skin contact</li> <li>• Avoid contamination of waterways</li> </ul>
<b>Methods and Materials for Containment and Clean Up:</b>	<p><b>Procedure for spill</b></p> <ol style="list-style-type: none"> <li>(1) Keep all bystanders away</li> <li>(2) Wear full length clothing and PVC gloves</li> <li>(3) Reposition any leaking containers so as to minimise further leakage</li> <li>(4) Dam and absorb spill with an absorbent material (eg sand or soil)</li> <li>(5) Shovel the absorbed spill into drums</li> <li>(6) Disposal of the absorbed material will depend upon the extent of the spill             <ul style="list-style-type: none"> <li>• For quantities up to 50 L of product bury in a secure landfill site</li> <li>• 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</li> </ul> </li> <li>(7) Decontaminate spill area with detergent and water and rinse with the smallest volume of water practicable</li> </ol>

## Section 7: HANDLING AND STORAGE

<b>Precautions for Safe Handling:</b>	<p>Poisonous if swallowed. Avoid contact with skin. Will damage eyes. Will irritate the skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When opening the container, preparing spray and using prepared spray wear:</p> <ul style="list-style-type: none"> <li>• cotton overalls buttoned to the neck and wrist (or equivalent clothing)</li> <li>• elbow-length chemical resistant gloves</li> <li>• goggles</li> </ul> <p>In addition, if applying by low pressure hand wand, wear:</p> <ul style="list-style-type: none"> <li>• a half face piece respirator with dust cartridge.</li> </ul> <p>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, goggles, respirator (if rubber, wash with detergent and warm water) and contaminated clothing.</p>
<b>Conditions for Safe Storage:</b>	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>
<b>National Exposure Standards:</b>	1-methyl-2-pyrrolidone	103 mg/m <sup>3</sup>	TWA
	2,6-di-t-butyl-4-methyl-phenol	10 mg/m <sup>3</sup>	TWA
<b>Syngenta exposure standards:</b>	Abamectin	0.02 mg/m <sup>3</sup>	TWA
<b>Biological Limit Values:</b>	No biological limits allocated		
<b>Engineering Controls:</b>	No special requirements. Product is used outdoors.		
<b>Personal Protective Equipment:</b>	<p>Poisonous if swallowed. Avoid contact with skin. Will damage eyes. Will irritate the skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When opening the container, preparing spray and using prepared spray wear:</p> <ul style="list-style-type: none"> <li>• cotton overalls buttoned to the neck and wrist (or equivalent clothing)</li> <li>• elbow-length chemical resistant gloves</li> <li>• goggles</li> </ul> <p>In addition, if applying by low pressure hand wand, wear:</p> <ul style="list-style-type: none"> <li>• a half face piece respirator with dust cartridge.</li> </ul> <p>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, goggles, respirator (if rubber, wash with detergent and warm water) and contaminated clothing.</p>		

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Yellow to red brown liquid	<b>Boiling Point/Range:</b>	Not available
<b>Odour:</b>	Sweetish, fruit, overpowering	<b>Freezing/Melting Point:</b>	Not available
<b>pH:</b>	2.6 - 3.6 (1 % w/v)	<b>Miscibility:</b>	Miscible in water
<b>Vapour Pressure:</b>	Not available	<b>Specific Gravity or Density:</b>	0.96 g/cm <sup>3</sup> at 25°C
<b>Vapour Density:</b>	Not available	<b>Viscosity, dynamic</b>	19 mPa.s at 20°C 11.4 mPa.s at 40°C
<b>Surface tension</b>	37.1 mN/m at 20°C		
<b>Flash Point:</b>	72.5°C at 1,013.25 hPa (DIN EN 22719)	<b>Explosive Properties:</b>	Not explosive
<b>Upper and Lower Flammable (Explosive) Limits in Air:</b>	Not available	<b>Oxidising Properties:</b>	Not oxidising
<b>Auto ignition Temperature:</b>	255°C	<b>Combustibility:</b>	Combustible C1
		<b>Corrosiveness:</b>	Not corrosive

## Section 10: STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under standard conditions.
<b>Conditions to Avoid:</b>	None known.
<b>Incompatible Materials:</b>	None known.
<b>Hazardous Decomposition Products:</b>	Combustion or thermal decomposition will evolve toxic and irritant vapours.
<b>Hazardous Reactions:</b>	None known. Hazardous polymerization does not occur.

## Section 11: TOXICOLOGICAL INFORMATION

<b>Health Effects from Likely Routes of Exposure:</b>		
<b>Acute:</b>	<b>Oral toxicity:</b>	<b>HARMFUL</b> Tests on rats indicate this product is harmful following single doses of undiluted product (LD <sub>50</sub> = 300 mg/kg)
	<b>Dermal toxicity:</b>	<b>HARMFUL</b> Tests on rabbits indicate this product is harmful following skin contact with undiluted product. (LD <sub>50</sub> = >1800 - 2000 mg/kg (formulation))
	<b>Inhalation:</b>	<b>LOW TOXICITY</b> Tests on rats indicate this product is not harmful due to inhalation of undiluted product. (LC <sub>50</sub> (4h) = 7.8 mg/L air (formulation))
	<b>Skin irritation:</b>	<b>NON IRRITANT</b>
	<b>Eye irritation:</b>	<b>IRRITANT</b>
	<b>Sensitisation:</b>	<b>SENSITISER</b>
<b>Chronic:</b>	Abamectin technical has been extensively tested in laboratory animals and test tube systems. No evidence of carcinogenic, teratogenic or mutagenic effects have been obtained. Reproductive toxicity noted in rats that is not relevant to humans. Central nervous system effects in chronic/subchronic animal tests.	

## Section 12: ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	<i>Toxicity to fish:</i>	<b>Highly toxic to fish</b> <i>Oncorhynchus mykiss</i> (rainbow trout): LC <sub>50</sub> = 0.13 mg/L, 96 h
	<i>Toxicity to daphnia and other aquatic invertebrates:</i>	<b>Very highly toxic to aquatic invertebrates</b> <i>Daphnia magna</i> (Water flea): EC <sub>50</sub> = 0.029 mg/L, 48 h (Based on studies with a similar formulation)
	<i>Toxicity to algae:</i>	<b>Slightly toxic to algae</b> <i>Pseudokirchneriella subcapitata</i> (green algae): E <sub>b</sub> C <sub>50</sub> > 82 mg/L, 72 h E <sub>r</sub> C <sub>50</sub> > 82 mg/L, 72 h (Based on studies with a similar formulation)
	<i>Toxicity to soil dwelling organisms:</i>	<b>Moderately toxic to soil dwelling organisms</b>
	<i>Bees:</i>	<b>Highly toxic to bees</b>
<b>Persistence and Degradability:</b>	<i>Biodegradability:</i>	Abamectin is not readily biodegradable.
	<i>Stability in water:</i>	Degradation half life of 1.7 days Abamectin is not persistent in water
	<i>Stability in soil:</i>	Degradation half life 12 to 52 days Abamectin is not persistent in soil
<b>Mobility</b>	Slight mobility in soil	
<b>Environmental Fate (Exposure):</b>	Fully degraded and incorporated into organic molecules	
<b>Bioaccumulative Potential:</b>	Abamectin does not bioaccumulate	

## Section 13: DISPOSAL CONSIDERATIONS

<b>Disposal Methods and Containers:</b>	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 for appropriate disposal to 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 Local, State or Territory government regulations. DO NOT burn empty containers or product.
<b>Special Precautions for Landfill or Incineration:</b>	Not applicable

## Section 14: TRANSPORT INFORMATION

<b>LAND TRANSPORT</b>			
ADG			
<b>UN Number:</b>	2902	<b>Packing Group:</b>	III
<b>UN Proper Shipping Name:</b>	Pesticide, Liquid, Toxic, N.O.S. (abamectin)	<b>Special Precautions for User:</b>	None allocated
<b>Class:</b>	6.1	<b>Hazchem Code:</b>	2X
<b>Subsidiary Risk:</b>	None allocated		
<b>SEA TRANSPORT</b>			
IMDG			
<b>UN Number:</b>	2902	<b>Subsidiary Risk:</b>	None allocated
<b>UN Proper Shipping Name:</b>	Pesticide, Liquid, Toxic, N.O.S. (abamectin)	<b>Packing Group:</b>	III
<b>Class:</b>	6.1	<b>Marine Pollutant:</b>	Marine pollutant

<b>AIR TRANSPORT</b>			
IATA - DGR			
<b>UN Number:</b>	2902	<b>Subsidiary Risk:</b>	None allocated
<b>UN Proper Shipping Name:</b>	Pesticide, Liquid, Toxic, N.O.S. (abamectin)	<b>Packing Group:</b>	III
<b>Class:</b>	6.1		

## Section 15: REGULATORY INFORMATION

<b>APVMA Product Number:</b>	68979
<b>Poisons Schedule (SUSDP):</b>	6

## Section 16: OTHER INFORMATION

<b>Date of preparation or last revision:</b> June 2014
<b>Source of Data:</b> 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.
<b>Note:</b> This product is a registered agricultural chemical and must, therefore, be used in accordance with the container label directions
<b>CONTACT POINT:</b> Regulatory Manager, Syngenta Australia Pty Ltd (02) 8876 8444 <b>24 HOURS EMERGENCY CONTACT: 1800 033 111</b>
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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