

SAFETY DATA SHEET

Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	MERIDIAN[®] Turf Insecticide
Other Names:	Proper shipping name: Environmentally Hazardous Substance, Solid, N.O.S. (thiamethoxam). Applicable only for marine and air transport
	Product code: A9584C
Recommended Use:	Insecticide for use on 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:	R 22 Harmful if swallowed R 36 Irritating to eyes
Safety Phrases:	-

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE	
Chemical Identity of Pure Substance:	Thiamethoxam
Synonym:	CGA293343
CAS Number:	153719-23-4

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/w)
Thiamethoxam	153719-23-4	25
Corn starch	9005-25-8	<70
Diatomaceous earth	61790-53-2	<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 physician. Wash contaminated clothing before re-use.</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 extinguisher. DO NOT use direct jet of water.</p> <p><i>Large fires</i> Use alcohol-resistant foam or water spray. DO NOT use direct jet of water.</p>
Hazards from Combustion Products:	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.
Special Protective Precautions and Equipment for Fire Fighters:	<p>Wear self-contained breathing apparatus and protective equipment.</p> <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

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 goggles, half face-piece respirator with combined dust and vapour cartridge, full length clothing and PVC gloves.(3) Reposition any leaking containers so as to minimise further leakage.(4) <i>For a product spill:</i> Sweep granule concentrates into a pile. <i>For a prepared spray spill:</i> Dam and absorb spill with an absorbent material (e.g. 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 kg of product bury in a secure landfill site.• For quantities greater than 50 kg seek advice (use emergency contact number below) from the manufacturer before attempting disposal. Contain in a secure location until disposal method is established.(7) Decontaminate the spill area with detergent and water and rinse with water

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling:	Will irritate the eyes and skin. Avoid contact with eyes and skin. If product in eyes, wash it out immediately with water. When opening the container and preparing the spray wear: <ul style="list-style-type: none">• cotton overalls buttoned to the neck and wrist over clothing (ie double layer of clothing)• a washable hat• elbow-length PVC gloves• goggles When using the prepared spray wear: <ul style="list-style-type: none">• cotton overalls buttoned to the neck and wrist over clothing (ie double layer of clothing)• a washable hat• elbow-length PVC gloves Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.
Conditions for Safe Storage:	Store in the closed, original container in a dry, cool, well-ventilated area out of 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:	Diatomecous earth	10 mg/m ³	TWA
	Corn starch	10 mg/m ³	TWA
Syngenta Exposure Standards:	Thiamethoxam	3 mg/m ³	TWA
Biological Limit Values:	No biological limit allocated		
Engineering Controls:	No special requirements. Product is used outdoors.		
Personal Protective Equipment:	<p>Will irritate the eyes and skin. Avoid contact with eyes and skin. If product in eyes, wash it out immediately with water. When opening the container and preparing the spray wear:</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist over clothing (ie double layer of clothing) • a washable hat • elbow-length PVC gloves • goggles <p>When using the prepared spray wear:</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist over clothing (ie double layer of clothing) • a washable hat • elbow-length PVC gloves <p>Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.</p>		

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Beige to brown granules	Boiling Point/Range:	Not applicable
Odour:	Musty	Freezing/Melting Point:	Not available
pH:	7 - 11 (1% aqueous dispersion)	Solubility in water	Dispersible
Vapour Pressure:	6.6 x 10 ⁻⁹ Pa (thiamethoxam)	Solubility in other solvents	Not soluble
Surface Tension:	46-47.6 mN/m at 20°C	Bulk Density:	0.42 –0.52 g/cm ³

Flammability (solid, gas):	Not highly flammable	Explosive properties:	Not explosive
Upper and Lower Flammable (Explosive) Limits in Air:	Not available	Oxidising properties:	Not oxidising
Minimum ignition energy:	0.03-0.1 J	Combustibility:	Not applicable
		Corrosiveness:	Not corrosive

Section 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal 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:	Hazardous polymerization does not occur. At elevated temperatures it will undergo rapid, gas evolving thermal decomposition.

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 >5000 mg/kg)
	Dermal toxicity:	LOW TOXICITY Tests on rats indicate this product has a low toxicity following skin contact with the undiluted product. (LD ₅₀ > 5000 mg/kg)
	Inhalation:	LOW TOXICITY Tests on rats indicate this product is not harmful due to inhalation of undiluted product. (LC ₅₀ (4 hr) >5.29 mg/L)
	Skin irritation:	SLIGHT IRRITANT (rabbit)
	Eye irritation:	SLIGHT IRRITANT (rabbit)
	Sensitisation:	NOT A SKIN SENSITISER (Guinea pigs)
Chronic:	Thiamethoxam technical has been extensively tested on laboratory mammals and in test-tube systems. Liver tumours noted in mice that are not relevant to humans. Did not show reproductive toxicity effects in animal experiments. Animal testing did not show any effects on foetal development. Did not show neurotoxicity in animal experiments.	

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity:	<i>Toxicity to fish:</i>	Practically non-toxic to fish <i>Oncorhynchus mykiss</i> (rainbow trout): LC ₅₀ >100 mg/L, 96 h
	<i>Toxicity to daphnia and other aquatic invertebrates:</i>	Very highly toxic to certain aquatic invertebrates <i>Daphnia magna</i> (Water flea): EC ₅₀ >100 mg/L, 48 h <i>Cloeon sp.</i> (Mayfly): EC ₅₀ = 56 µg/L, 48 h
	<i>Toxicity to algae:</i>	Practically non-toxic to algae <i>Pseudokirchneriella subcapitata</i> (green algae): E _r C ₅₀ >100 mg/L, 72 h
	<i>Toxicity to soil dwelling organisms:</i>	Practically non-toxic to earthworms <i>Eisenia foetida</i> (earthworm): LC ₅₀ >1000 mg/kg
	<i>Bees:</i>	Highly toxic to bees Very toxic to bees by contact and oral application. Avoid spraying while bees are foraging.

Persistence and Degradability:	Not persistent in soil. Stable in water
Mobility	Moderately mobile in soil
Environmental Fate (Exposure):	Incorporated into C, N, O and H containing organic molecules
Bioaccumulative Potential:	Thiamethoxam has shown no potential for bioaccumulation.

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 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:	3077	Subsidiary Risk:	None allocated
UN Proper Shipping Name:	Environmentally Hazardous Substance, Solid, N.O.S. (Thiamethoxam)	Packing Group:	III
Class:	9	Marine Pollutant:	Yes

AIR TRANSPORT IATA-DGR			
UN Number:	3077	Subsidiary Risk:	None allocated
UN Proper Shipping Name:	Environmentally Hazardous Substance, Solid, N.O.S. (Thiamethoxam)	Packing Group:	III
Class:	9		

Section 15: REGULATORY INFORMATION

APVMA Product Number:	5818
Poisons Schedule (SUSDP):	5

Section 16: OTHER INFORMATION

Date of preparation or last revision: March 2013

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.