


SAFETY DATA SHEET

Section 1: Identification: Product identifier and chemical identity

Product Identifier:	MERIDIAN® Turf Insecticide
Other Means of Identification:	Proper shipping name: Environmentally Hazardous Substance, Solid, N.O.S. (thiamethoxam) Applicable only for marine and air transport
	Product code: A9584C, A9584E
Recommended Use:	Insecticide for use on turf
Details of manufacturer or importer	Syngenta Australia Pty Ltd ABN 33 002 933 717
Address:	Level 1, 2-4 Lyonpark Road MACQUARIE PARK NSW 2113 AUSTRALIA
Website:	syngenta.com.au
Phone Number:	(02) 8876 8444
Emergency Phone Number:	24 hours - 1800 033 111

Section 2: Hazards identification

Classification of the Hazardous Chemical:	Acute toxicity – Oral – Category 4 Eye irritant – Category 2A
Signal Word:	WARNING
Hazard Statement(s):	H302 Harmful if swallowed H319 Causes serious eye irritation
Precautionary statements	P102 Keep out of reach of children. P103 Read label before use. P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear eye protection/face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. P330 Rinse mouth. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/attention. P501 Dispose of contents/container to an approved waste management authority.
Hazard Symbols:	

Section 3: Composition and 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
lignosulfonic acid, ethoxylated, sodium salts	68611-14-3	<10
sodium lauryl sulfate	151-21-3	<10
silica	61790-53-2	<10
other ingredients determined not to be hazardous	-	to 100

Section 4: First aid measures

Description of Necessary First Aid Measures:	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.
Ingestion:	If swallowed, seek medical advice immediately and show this 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 physician. Wash contaminated clothing before re-use.
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.
Symptoms Caused by Exposure:	Poisoning symptoms in laboratory animals were non-specific.
Medical Attention and Special Treatment:	There is no specific antidote available. Treat symptomatically.

Section 5: Fire fighting measures

Suitable Extinguishing Equipment:	Small fires: 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. Large fires: Use alcohol resistant foam or water spray. DO NOT use a solid water stream as it may scatter and spread fire
Specific Hazards Arising from the Chemical:	As this 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 vapours. Exposure to decomposition products may be a hazard to health.
Special Protective Equipment and Precautions for Fire Fighters:	When fighting a major fire wear full protective clothing and self contained breathing apparatus. 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

Personal Precautions, Protective Equipment and 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
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and Materials for Containment and Clean Up:	<p>Procedure for spill</p> <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) For a product spill: Sweep granule concentrates into a pile. For a prepared spray spill: 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 kg of product bury in a secure landfill site • For quantities greater than 50 kg 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
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Section 7: Handling and storage

Precautions for Safe Handling:	<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 spray wear:</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist • washable hat • elbow-length PVC gloves • face shield or goggles <p>When using (except aerial spraying) the prepared spray, wear</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist • washable hat • elbow-length PVC gloves. <p>If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.</p>
Conditions for Safe Storage, Including any Incompatibilities:	<p>Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight.</p>

Section 8: Exposure controls and personal protection

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

	Component	Exposure limit	Value type
National Exposure Standards:	Silica	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 spray wear:</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist • washable hat • elbow-length PVC gloves • face shield or goggles <p>When using (except aerial spraying) the prepared spray, wear</p> <ul style="list-style-type: none"> • cotton overalls buttoned to the neck and wrist • washable hat • elbow-length PVC gloves. <p>If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.</p>
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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:	Dispersible
Vapour Pressure:	6.6 x 10 ⁻⁹ Pa (thiamethoxam)	Specific Gravity or Density:	0.42 – 0.52 g/cm ³
Vapour Density:	Not available		

Flash Point:	Not available	Explosive Properties:	Not explosive
Upper and Lower Flammable (Explosive) Limits in Air:	Not available	Oxidising Properties:	Not oxidising
Auto Ignition Temperature:	>120°C	Combustibility:	Not applicable
		Corrosiveness:	Not corrosive

Section 10: Stability and reactivity

Reactivity:	No information available
Chemical Stability:	Stable at normal ambient temperature and pressure.
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur. At elevated temperatures it will undergo rapid, gas evolving thermal decomposition.
Conditions to Avoid:	None known.
Incompatible Materials:	None known.
Hazardous Decomposition Products:	Combustion or thermal decomposition will evolve toxic and irritant vapours.

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. The liver and kidney were identified as target organs. No evidence of neurotoxic, mutagenic, teratogenic or reproductive effects was obtained. No carcinogenic potential was noticed in rats. Liver tumours were observed in a carcinogenicity study in mice but occurred at dose levels that interfered with normal liver function and is considered to be related to sustained regenerative cell proliferation related to cell death supported by a phenobarbital-like enzyme induction. Special studies revealed that thiamethoxam tech. acts as an inducer of metabolising liver enzymes in the mouse. This effect had a clear threshold level and was of a type specific to mice and is not considered relevant to humans.

Section 12: Ecological information

Ecotoxicity	Toxicity to fish:	Practically non-toxic to fish <i>Oncorhynchus mykiss</i> (rainbow trout): LC ₅₀ >100 mg/L, 96 h
	Toxicity to daphnia and other aquatic invertebrates:	Very highly toxic to certain aquatic invertebrates <i>Daphnia magna</i> (Water flea): EC ₅₀ >100 mg/L, 48 h <i>Cloeon</i> sp. (Mayfly): EC ₅₀ = 56 µg/L, 48 h
	Toxicity to algae:	Practically non-toxic to algae <i>Pseudokirchneriella subcapitata</i> (green algae): ErC ₅₀ >100 mg/L, 72 h
	Toxicity to soil dwelling organisms:	Practically non-toxic to earthworms <i>Eisenia foetida</i> (earthworm): LC ₅₀ >1000 mg/kg
	Bees:	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:	Single rinse before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. Puncture or shred 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 Incineration or Landfill:	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
Transport Hazard Class:	None allocated	Hazchem or Emergency Action 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
Transport Hazard Class:	9	Environmental hazards for Transport Purposes:	Marine pollutant

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
Transport Hazard Class:	9		

Section 15: Regulatory information

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

Section 16: Any other relevant information

Date of preparation or last revision: November 2016

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 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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