

MATERIAL SAFETY DATA SHEET

STATEMENT OF HAZARDOUS NATURE:

Hazardous according to the criteria of NOHSC

COMPANY DETAILS:

Syngenta Crop Protection Pty Limited
A.C.N. 002 933 717
Level 1, 2-4 Lyon Park Road
NORTH RYDE, NSW 2113

Telephone No.: (02) 8876 8444
24 Hours Emergency No.: 1 800 033 111

IDENTIFICATION

PRODUCT NAME: MERIDIAN Insecticide

Active Ingredient:	Thiamethoxam	UN Number:	None allocated
Formulation Type:	Water dispersible granule	Dangerous Goods Class	None allocated
Product Code No.:	A-9584 C	Subsidiary Risk:	None allocated
Chemical type:	Thianicotinyl	Hazchem Code:	None allocated
Poisons Schedule:	5	Packing Group:	None allocated
		EPG/IERG:	None allocated

USE: Insecticide for the control of African Black Beetle and Billbug in turf.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance:	Light brown granules	Flash point:	Does not flash
Odour:	Musty	Flammability:	Non-flammable
Boiling point:	Not applicable	Combustibility:	Not combustible
Vapour pressure (25°C):	6.6×10^{-9} Pa (thiamethoxam)	Behaviour in water:	Dispersible
Specific gravity:	0.42 – 0.52 g/cm ³		

OTHER PROPERTIES

pH:	9 (1% aqueous dispersion)	Explosive properties:	Not explosive
Surface tension:	46 – 47.6 mN/m (0.6g/L suspension, at 20°C)	Auto-ignition temp:	Not available
		Oxidising properties:	Not oxidising

INGREDIENTS -

	CAS No.	Content (%w/w)
thiamethoxam (technical grade)		> 25
to give 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%

HEALTH HAZARD INFORMATION

HEALTH EFFECTS

ACUTE TOXICITY

This product is not harmful according to NOHSC Australia. (WHO Hazard Class III)

Swallowed:	NOT HARMFUL Tests on rats indicate low toxicity following single doses of undiluted product. (LD ₅₀ > 5000 mg/kg)
Dermal absorption:	NOT HARMFUL Tests on rats indicate low toxicity due to dermal contact with undiluted product. (LD ₅₀ >5000 mg/kg)
Inhaled:	NOT HARMFUL Tests on rats indicate a low toxicity due to inhalation of undiluted product. (LC ₅₀ (4 h) > 5.29 mg/L)

Irritation (based on studies with rabbits using undiluted product)

Eye: **MODERATE IRRITANT**

Skin: **SLIGHT IRRITANT**

Sensitisation (based on studies with Guinea pigs using undiluted product)

Skin: **NOT A SENSITISER**

Poisoning symptoms:

No case of human poisoning due to this product is on record. The poisoning symptoms observed for laboratory mammals were non-specific.

CHRONIC TOXICITY

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 on 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.

FIRST AID

In case of poisoning by any exposure route contact a doctor or Poisons Information Centre. Phone 131 126.

Swallowed: If swallowed, seek medical advice immediately and show container or label.

Eye: If product gets in eyes wash it out immediately with water.

Skin: May irritate the skin. Avoid contact with skin. If skin contact occurs remove contaminated clothing and wash affected areas thoroughly with soap and water. Wash contaminated clothing before re-use.

Inhaled: Move affected person to fresh air and keep at rest until recovered.

ADVICE TO DOCTOR

No specific antidote exists. Treat symptomatically.

PRECAUTIONS FOR USE

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

EXPOSURE STANDARDS

Ingredient	Occupational Exposure Limit
Corn starch	10 mg/m ³ of air (NOHSC – time weighted average)
Diatomaceous earth	10 mg/m ³ of air (NOHSC – time weighted average)

No official exposure standards have been set for the other ingredients of this product.

Exposure Potential - Swallowing and inhalation are unlikely under normal conditions of usage. Thiamethoxam has low absorption by the skin.

ENGINEERING CONTROLS

No special requirements.

PERSONAL PROTECTION

Will irritate the eyes and skin. Avoid contact with eyes and skin. If product gets in eyes, wash it out immediately with water.

When opening the container and preparing the spray wear:

- cotton overalls buttoned to the neck and wrist over clothing (ie double layer of clothing),
- a washable hat,
- elbow-length PVC gloves and
- goggles.

When using the prepared spray wear:

- cotton overalls buttoned to the neck and wrist over clothing (ie double layer of clothing),
- a washable hat and
- elbow-length PVC gloves.

Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

FLAMMABILITY

This product is NON-FLAMMABLE.

SAFE HANDLING INFORMATION**STORAGE AND TRANSPORT**

Store in tightly sealed original containers in a dry secure place away from fertilisers, seed, feed and food. Store out of direct sunlight. Keep out of reach of children, unauthorised persons and animals.

SPILLS AND DISPOSAL

In case of spillage it is important to take all steps necessary to:

- Avoid eye and skin contact.
- Avoid contamination of waterways

Procedure for spill:

- (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) **For a product spill:** Sweep granule concentrates into a pile.
For a prepared spray spill: 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.
 - 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

Dispose of empty, used containers by:

- (a) Single rinse containers with water. Add the rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site.
- (b) If recycling, replace cap and return clean containers to recycler or designated collection point.
- (c) 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.

FIRE/EXPLOSION HAZARD

This product is non-flammable and non-explosive. Extinguish warehouse and factory fires using fine-water spray or foam. Do not allow fire-water to enter drains.

OTHER INFORMATION

Thiamethoxam technical is harmful to birds in acute toxicity studies and not toxic to birds in short-term dietary studies. The LD₅₀ of thiamethoxam in acute toxicity studies range from 576 to 1552 mg/kg bw.

In acute studies thiamethoxam was not toxic to fish (LC₅₀ >111 mg/L) and the fresh water crustacean, *Daphnia magna* (EC₅₀ >100 mg ai/L), however it is toxic to the marine crustacean, Mysid shrimp (LC₅₀ of 6.9 mg/L). Thiamethoxam is non toxic to molluscs (Eastern oyster, NOEC = 119 mg/L) and algae (Green algae, NOEC = 81.8 mg/L). Thiamethoxam has shown no potential for bioaccumulation.

The compound is not toxic to earthworms in acute toxicity studies (LC₅₀ > 1000 mg/kg soil). However, thiamethoxam is very toxic to bees by contact and oral application.

Note: This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Federal health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

CONTACT POINT: Regulatory Affairs Manager - Crop Protection - (02) 8876 8444
24 HOURS EMERGENCY CONTACT: 1 800 033 111

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 MSDS 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.