

MATERIAL SAFETY DATA SHEET

Tugon® 100 WP Fly & Litter Beetle Insecticide

Date of Issue: September 13th, 2006

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product name: Tugon® 100 WP Fly & Litter Beetle Insecticide
Other names: None
Product code: 6334938 (100 g)
Chemical group: Pyrethroid
Recommended use: Insecticide for pest control use
Formulation: Wettable powder (WP)
Supplier: Bayer Environmental Science – A Business Group of Bayer CropScience Pty Ltd
ABN 87 000 226 022
Address: 391 - 393 Tooronga Road, East Hawthorn
Victoria 3123, Australia
Telephone: (03) 9248 6888
Facsimile: (03) 9248 6800
Website: www.bayercropscience.com.au
Contact: Technical Manager (03) 9248 6888
Emergency Telephone Number: 1800 033 111 – Orica SH&E Shared Services

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE – NON-DANGEROUS GOOD
Very toxic if swallowed. Harmful by inhalation. Not flammable.

Hazard designation: Hazardous (National Occupational Health and Safety Commission - NOHSC)
Risk phrases: R28 – Very toxic if swallowed
R20 – Harmful by inhalation
Safety phrases: See Sections 4, 5, 6, 7, 8, 9, 13
ADG classification: Not a "Dangerous good" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. For transport by sea, Prolong Fly and Litter Beetle Insecticide is a MARINE POLLUTANT. See Section 14.
SUSDP classification: Schedule 5 (Standard for the Uniform Scheduling of Drugs and Poisons)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (g/kg):
Cyfluthrin	[68359-37-5]	100
Silica	[14808-60-7]	615
Other ingredients	[Non-hazardous]	275

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4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to a doctor.

Inhalation: Remove patient to fresh air. Keep patient warm and at rest. Seek medical advice.

Skin contact: If material is on skin wash off with soap and water. Apply Vitamin E cream or body milk.

Eye contact: If material is in eyes hold eyes open and flood with clean water for at least 15 minutes.

Ingestion: Do not induce vomiting. Rinse mouth. Seek medical advice immediately.

First Aid Facilities: Provide washing facilities in the workplace including eye-wash.

Symptoms: Local symptoms include skin and eye paraesthesia which may be severe (usually transient with resolution within 24 hours), eye and mucous membrane irritation, cough. Systemic symptoms include discomfort in the chest, bronchial hypersecretion, pulmonary oedema, tachycardia, low blood pressure, palpitation, nausea, vomiting, diarrhoea, abdominal pain, salivation, dizziness, blurred vision, headache, apathy, anorexia, somnolence, coma, spasm, convulsions, tremors, ataxia, muscular fasciculation.

Medical attention: Apply basic aid and decontamination procedures. Treat symptoms. There is no specific antidote.

Note to physicians

The presenting signs of overexposure usually relate to hyperaesthesia of nerve endings in skin and mucous membranes exposed to the chemical. These signs can only be treated symptomatically and resolve spontaneously within 24-48 hours. The skin and mucous membrane hyperaesthesia results from direct contact, not from systemic distribution of the chemical.

Treat large intakes with gastric lavage, and charcoal administration. Use endotracheal intubation, and artificial respiration (if necessary). In cases of severe ingestions, cardiac and respiratory function should be monitored. In case of convulsions, diazepam is the anticonvulsant of choice. Thus seizure management should follow standard practice using benzodiazepines (with oxygen and airway protection), if insufficiently effective followed by Phenobarbital infusion as required for status epilepticus. A suggested regimen would be: Start with 10 to 30 mg diazepam by intravenous injection according to body weight, for children pro rata. This dose is to be repeated every 10 to 30 minutes according to the patient's response.

Contraindications: adrenergic compounds (except for CRP) and high dose atropine. Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.

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5. FIRE FIGHTING MEASURES

Extinguishing media: Sprayed water jet, foam, extinguishing powder, carbon dioxide, sand

Hazards from combustion products: If involved in a fire: hydrogen chloride gas, hydrogen fluoride, hydrogen cyanide, carbon monoxide, oxides of nitrogen may be emitted.

Precautions for fire fighters: Fight fire in the early stages if safe to do so. Wear respiratory protection. Well ventilated areas: wear full face mask with combination filter, eg., ABEK-P2 (offers no protection from carbon monoxide). Enclosed premises: wear respirator with independent air supply. Contain fire-fighting water.

6. ACCIDENTAL RELEASE MEASURES

Dealing with spills and disposals may result in the potential for increased personal exposure. Protective clothing and equipment as described in the PERSONAL PROTECTION section should be worn. Avoid contact with spilled material or contaminated surfaces. Keep people and animals away. Prevent spillage from spreading or entering waterways and underground drains. Work from up-wind side of spill. Do not inhale dust. Sweep and shovel up spill. Fill material along with any contaminated soil etc., into sealable containers. Clean affected area with an aqueous detergent and a small amount of water. Absorb this with hydrated lime and place in a sealable drum. Spread hydrated lime over the affected area. Do not smoke, eat or drink during clean-up operations.

7. HANDLING AND STORAGE

Handling: Keep out of reach of children. Poisonous if swallowed. Avoid contact with eyes and skin. Do not inhale dust.

Storage: Store in the closed, original container in a cool well ventilated area away from children, animals, and animal feedstuffs. Do not store for prolonged periods in direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards: NOHSC has not determined exposure standards for cyfluthrin or any of the other ingredients in the product except

Silica TWA 0.1 mg/m³ (NOHSC)

Engineering controls: No engineering controls are required for the normal use of this product according to label.

Personal Protective Equipment: May irritate the eyes and skin. When preparing spray and using the prepared spray wear elbow length PVC gloves. After each day's use wash gloves and contaminated clothing.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Off white to beige wettable powder
Odour:	Slight characteristic smell
Vapour pressure:	Not relevant
Vapour density:	Not relevant
Boiling point:	Not relevant
Freezing/melting point:	>200°C
Solubility:	Insoluble, water-dispersible
Density:	Bulk volume fluffed approx 380 mL/100g Bulk volume jolted approx 300 mL/100g
pH:	6.0-7.5 (at 10% in water)
Flash Point:	Not relevant
Flammability (explosive) limits:	Not relevant
Auto-ignition temperature:	383 °C
Octanol/water partition coefficient:	Not available
Formulation:	Wettable powder insecticide

10. STABILITY AND REACTIVITY

Chemical stability:	Product is stable and non-flammable. However, fine dust may form explosive mixtures in air.
Hazardous polymerisation:	None known
Conditions to avoid:	Risk of dust explosion: may cause dust explosion. Impact sensitivity: >40 joules, i.e., not sensitive to impact (in BAM dropping weight test).
Incompatible materials:	Avoid strong oxidising agents.
Hazardous decomposition products:	Solid products combustibility: BZ 3 = local burning or glowing with, at the most, only slight spreading (VDI 2263). If involved in a fire: hydrogen chloride gas, hydrogen fluoride, hydrogen cyanide, carbon monoxide, oxides of nitrogen may be emitted.

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11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Inhalation:	Exposure to spray mist may cause nasal irritation.
Skin contact:	Tingling sensations may be felt in skin and mucous membranes exposed to the chemical.
Eye contact:	Product is irritating to the eyes
Ingestion:	Not available
Other:	None

ANIMAL TOXICITY DATA – PRODUCT:

Acute:

Oral toxicity:	LD ₅₀ rat: approx 2290 mg/kg
Dermal toxicity:	LD ₅₀ rat: >5000 mg/kg
Inhalation toxicity:	LC ₅₀ rat > 0.225 mg/L
Skin irritation:	Not irritating
Eye irritation:	Slightly irritating
Sensitisation:	Non-sensitising

Chronic:

Cyfluthrin has been shown to be non-carcinogenic, non-mutagenic, and non-teratogenic in laboratory species.

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12. ECOLOGICAL INFORMATION

Dangerous to fish. Cover fish tanks before use. DO NOT contaminate ponds, waterways or drains with the chemical or used container. Dangerous to bees and other beneficial insects. DO NOT spray any plants in flower while bees are foraging.

Fish toxicity:	Cyfluthrin: LC ₅₀ : 0.6 ug/L rainbow trout LC ₅₀ : 3.2 ug/L golden orfe LC ₅₀ : 1.5 ug/L bluegill sunfish
Daphnia toxicity:	(Cyfluthrin) LC ₅₀ (48) 0.00016 – 0.0027 mg/L (<i>Daphnia magna</i>)
Toxicity to algae:	(Cyfluthrin) E _r C ₅₀ for <i>Scenedesmus subpicatus</i> > 10 mg/L
Bird toxicity:	Not available
Bee toxicity:	Cyfluthrin is toxic to bees.
Environmental fate, persistence and degradation:	Cyfluthrin degradation in different soils is rapid. Cyfluthrin is not classified as mobile in soil.

13. DISPOSAL CONSIDERATIONS

- 1) After intended use: Rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemical on-site. Dispose of at a local authority landfill. If not available bury containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt.
- 2) After spill or accident: Dispose of sealed containers at an approved local waste disposal site.

14. TRANSPORT INFORMATION

UN number:	Not applicable (road/rail)
Proper shipping name:	Not applicable (road/rail)
Class and Subsidiary Risk:	Not applicable (road/rail)
Packing Group:	Not applicable (road/rail)
EPG:	Not applicable (road/rail)
Hazchem code:	Not applicable (road/rail)
Marine pollutant:	Yes – If this product is shipped by sea it is a Class 9 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (contains cyfluthrin), UN 3077, Packing Group III.

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15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Act 1988

Australian Pesticides and Veterinary Medicines Authority Approval Number: 48607

16. OTHER INFORMATION

Trademark information: Tugon® is a Registered Trademark of Bayer

Preparation information: Replaces September 11th, 2003 edition.
Reasons for update: Risk phrases, Formulation composition, First Aid Measures – Symptoms and Medical Attention, Exposure standards, Animal toxicity data, Transport information – Marine pollutant status.

Data sources: Bayer CropScience Pty Ltd product safety data and published data

This MSDS 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.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

END OF MSDS