

MATERIAL SAFETY DATA SHEET

Tugon 100WP Fly & Litter Beetle Insecticide

Date of Issue: September 11, 2003

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product name: Tugon 100WP Fly & Litter Beetle Insecticide
Other names: None
Product code: 65868
Recommended use: Insecticide for pest control use.
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 - DANGEROUS GOOD

Harmful if swallowed. Will irritate eyes. May irritate skin. Not flammable.

Hazard designation: Hazardous according to criteria of Worksafe Australia
Risk phrases: R22 – Harmful if swallowed.
R38 – Irritating to skin
Safety phrases: Not applicable
ADG classification: Class 6.1
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
Other ingredients	[Non-hazardous]	900

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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.
- Skin contact:** If material is on skin wash off with soap and water.
- Eye contact:** If material is in eyes hold eyes open and flood with clean water for at least 15 minutes
- Ingestion:** Not available
- First Aid Facilities:** Provide washing facilities in the workplace including eye-wash.
- Symptoms:** Symptoms of overexposure: No specific symptoms. Tingling sensations may be felt in skin and mucous membranes exposed to the chemical. Exposure to spray mist may cause nasal irritation.
- Medical attention:** Apply basic aid and decontamination procedures. Treat symptoms. Cyfluthrin is a synthetic pyrethroid. There is no specific antidote. The primary presenting signs of overexposure usually relate to hyperaesthesia of nerve endings in skin and mucous membranes exposed to the chemical. The symptoms can be treated and usually resolve spontaneously within 24-48 hours. The skin and mucous membrane hyperaesthesia results from direct contact, not from systemic distribution of the chemical.

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

After spillage/leakage/gas leakage:
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.

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7. HANDLING AND STORAGE

Handling: Keep out of reach of children.
Storage: Store away from food, drink or animal feeding stuffs.
Store below 30°C.
Keep away from heat or moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards: NOHSC has not determined exposure standards for cyfluthrin or any of the other ingredients in the product. This product contains crystalline silica the respirable fraction for which is currently under review.

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

Personal Protective Equipment: Will irritate the eyes and skin.
Avoid inhalation of dust while preparing the spray.
When preparing spray and using the prepared spray wear elbow-length PVC gloves. After each day's use wash gloves and contaminated clothing.

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: Not relevant
Octanol/water partition coefficient: Not available
Formulation: Wettable powder insecticide

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10. STABILITY AND REACTIVITY

Chemical stability:	Product is stable.
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.

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 1400 mg/kg
Dermal toxicity:	LD ₅₀ rat: >5000 mg/kg
Inhalation toxicity:	Not available
Skin irritation:	Not available
Eye irritation:	Not available
Sensitisation:	Not available

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Chronic:

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

12. ECOLOGICAL INFORMATION

Fish toxicity: (cyfluthrin)	LC ₅₀ : 0.022 mg/mL (96 hours) carp (<i>Cyprinus carpio</i>) LC ₅₀ : 0.0032 mg/mL (96 hours) golden orfe (<i>Leuciscus idus</i>) LC ₅₀ : 0.0006 mg/mL (96 hours) rainbow trout (<i>Salmo gairdneri</i>) LC ₅₀ : 0.0015 mg/mL (96 hours) bluegill (<i>Lepomis macrochirus</i>)
Daphnia toxicity:	LC ₅₀ (48) 0.00016 – 0.0027 mg/L
Toxicity to algae:	E _r C ₅₀ for <i>Scenedesmus subpicatus</i> > 10 mg/L
Bird toxicity:	Not available
Bee toxicity:	Cyfluthrin is toxic to bees.
Other:	None
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:	2588
Proper shipping name:	PESTICIDE, SOLID, TOXIC, N.O.S.
Class and Subsidiary Risk:	6.1
Packing Group:	III
EPG:	Dangerous Goods Initial Emergency Response Guide Number 34.
Hazchem code:	2X

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15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Act 1988

National Registration Authority Approval Number: 48607

16. OTHER INFORMATION

Trademark

information: Tugon is a Registered Trademark of Bayer

Preparation Replaces May 4, 2001 edition.

information: Reason for update: Conversion to 16 heading format.

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