

MATERIAL SAFETY DATA SHEET

Tempo Residual Insecticide

Date of Issue: October 23, 2002

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product name: Tempo Residual Insecticide
Other names: Responsar 2.5 SC (NZ)
Product code: 25554
Recommended use: Insecticide for control of a range of different insect pests in non-crop situations
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

NON-HAZARDOUS SUBSTANCE - NON-DANGEROUS GOOD

May irritate eyes and skin. Not flammable

Hazard designation: Not classified as hazardous according to criteria of Worksafe Australia
Risk phrases: Not applicable
Safety phrases: Not applicable
ADG classification: Not "dangerous goods" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
SUSDP classification: Schedule 5 (Standard for the Uniform Scheduling of Drugs and Poisons)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (g/L):
Betacyfluthrin	[68359-37-5]	25
Sulphuric acid	[7664-93-9]	0.5
Other ingredients	Non-hazardous	1114.5

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: Seek medical advice
Skin contact: Wash the affected area immediately with soap and water

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Eye contact:	Flush immediately with copious amounts of fresh running water. Seek medical advice if eyes are affected.
Ingestion:	The product exhibits low toxicity by the oral route, in case of ingestion of large quantities of material seek medical advice.
First Aid Facilities:	Provide eyewash and washing facilities in the workplace.
Symptoms:	No specific symptoms of overexposure. Tingling sensations may be felt in skin and mucous membranes exposed to the chemical.
Medical attention:	Apply basic aid and decontamination procedures. Treat symptoms. There is no specific antidote. 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.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Sprayed water jet, foam, extinguishing powder, CO ₂ , sand.
Hazards from combustion products:	Not available
Precautions for fire fighters:	Fight fire in the early stages if safe to do so. Wear respiratory protection. In well ventilated areas wear full face mask with combination filter, eg., ABEK-P2 (offers no protection from carbon monoxide). In enclosed premises use a respirator with independent air supply. Contain firefighting water.

6. ACCIDENTAL RELEASE MEASURES

Prevent spillage from spreading or entering waterways and underground drains. Take up with absorbent material such as sawdust, peat, or chemical binding agent. 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 container. 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.
Storage:	Store away from food, drink or animal feeding stuffs. Store below 30°C. Keep away from heat or moisture. To protect the quality of the product, avoid temperatures below minus 10°C and above 40°C. Store so that unauthorised persons do not have access.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards:	NOHSC has not determined exposure standards for betacyfluthrin or any of the other ingredients in the formulation except: Sulphuric acid TWA 1 mg/cu metre (ACGIH) STEL 3 mg/cu metre (ACGIH) Sulphuric acid is present in the product only at extremely low levels as a buffer (pH adjuster).
Engineering controls:	No engineering controls are required for the normal use of this product according to label.
Personal Protective Equipment:	Personal protective measures: Avoid contact with eyes and skin. Do not inhale vapour and spray mist. If product is on the skin wash the affected area immediately with soap and water. If product enters the eye(s) flush the eye(s) immediately with copious amounts of fresh running water. Seek medical advice if eye(s) are affected. Personal protective equipment: When preparing the spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow length PVC gloves and half face respirator. When using the prepared spray wear cotton overalls buttoned to the neck and wrist, a washable hat, and rubber gloves Industrial hygiene: After use and before eating, drinking or smoking, wash hands, arms, and face thoroughly with soap and water. After each day's use wash gloves, respirator or face piece, and if rubber, wash with detergent and warm water, and contaminated clothing. Do not eat or smoke while using the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Greyish white liquid suspension
Odour:	Slight characteristic smell
Vapour pressure:	Not available
Vapour density:	Not available
Boiling point:	Approx 100°C
Freezing/melting point:	Not available
Solubility:	Miscible
Density:	Approx 1.140 kg/litre at 20°C
pH:	3.0-7.0 (undiluted)
Flash Point:	No flash point up to 100°C
Flammability (explosive) limits:	Not available
Auto-ignition temperature:	Not available
Octanol/water partition coefficient:	Not available
Formulation:	Suspension concentrate

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10. STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use.
Hazardous polymerisation:	Hazardous polymerisation will not occur.
Conditions to avoid:	Not available
Incompatible materials:	Not available
Hazardous decomposition products:	Not available

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Inhalation:	Not available
Skin contact:	May irritate the skin
Eye contact:	May irritate eyes
Ingestion:	Product is of low toxicity by the oral route
Other:	None

ANIMAL TOXICITY DATA – PRODUCT:

Acute:

Oral toxicity:	LD ₅₀ rat: >2500 mg/kg
Dermal toxicity:	LD ₅₀ rat: >4000 mg/kg
Inhalation toxicity:	LC ₅₀ (4 hr) >4524 mg/m ³
Skin irritation:	Not irritating – rabbit
Eye irritation:	Not irritating – rabbit
Sensitisation:	Not sensitising - guinea pig

Chronic:

Non-carcinogenic, non-mutagenic, and non-teratogenic in laboratory species.

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12. ECOLOGICAL INFORMATION – Beta-Cyfluthrin

Betacyfluthrin must be prevented from reaching watercourses.

Fish toxicity: LC₅₀ (96 h): 0.33 µg/L; Golden orfe (*Leuciscus idus*)
LC₅₀ (96 h): 0.089 µg/L; Rainbow trout (*Oncorhynchus mykiss*)
LC₅₀ (96 h) 0.028 µg/L; Bluegill sunfish (*Lepomis macrochirus*)

Daphnia toxicity: EC₅₀ (48 h): 0.29 µg/L; Water flea (*Daphnia magna*)

Toxicity to algae: EC₅₀ (96 h) >10 µg/L; Green algae (*Scenedesmus subspicatus*)

Bird toxicity: Acute oral LD₅₀ for Japanese quail >2000 mg/kg

Bee toxicity: Toxic to bees

Other: None

Environmental fate, persistence and degradation: Degradation in soil is rapid.
Leaching behaviour is classified as immobile.

13. DISPOSAL CONSIDERATIONS

- 1) After intended use: Triple rinse containers before disposal and add rinsings to the tank mix or dispose of in a disposal pit away from waterways. Destroy empty containers by breaking, crushing or puncturing them. Bury containers at a depth of 500 mm or more at a safe disposal site, or take them to a dump that does not burn its refuse. Do not burn empty containers or product.
- 2) After spill or accident: Dispose of sealed containers at an approved local waste disposal site.

14. TRANSPORT INFORMATION

UN number: Not applicable
Proper shipping name: Not applicable
Class and Subsidiary Risk: Not "dangerous goods" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
Packing Group: Not applicable
EPG: Not applicable
Hazchem code: Not applicable

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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: 54134

16. OTHER INFORMATION

Trademark information: Tempo is a Registered Trademark of Bayer.

Preparation information: Replaces March 27, 2001 edition.
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