

MATERIAL SAFETY DATA SHEET

Termidor® Residual Termiticide

Date of Issue: October 23, 2002

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product name: Termidor® Residual Termiticide
Other names: None
Product code: Not available
SAP product code:
Recommended use: For use as a termiticide in the application of a residual soil barrier.
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 6854
Emergency Telephone Number: 1800 033 111 – Orica SH&E Shared Services

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE - DANGEROUS GOOD

Harmful if swallowed. Not flammable.

Hazard designation: Hazardous according to criteria of Worksafe Australia
Risk phrases: R22 Harmful if swallowed
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/L):
Fipronil	[120068-37-3]	100
1,2-Benzisothiazolin-3-one	2634-33-5	1.0
Other ingredients, including water	(non hazardous)	to 100%

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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 victim to fresh air. Seek medical assistance.
- Skin contact:** Remove contaminated clothing. Wash affected areas with plenty of soap and water.
- Eye contact:** Immediately irrigate with copious quantities of water for at least 15 minutes. Seek immediate medical assistance.
- Ingestion:** If swallowed, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Keep under medical supervision.
- First Aid Facilities:** Provide washing facilities in the workplace.
- Symptoms:** Symptoms of overexposure include respiratory difficulty, decreased reflexes, lethargy, tremors, and in severe cases, convulsions. Repeated exposure at dose levels that are not acutely toxic may result in symptoms of toxicity.
- Medical attention:** Fipronil is a reversible gamma-aminobutyric (GABA) receptor inhibitor. During intoxication it will induce neurological stimulation with possible convulsions. Treat symptoms. No specific antidote known. Phenobarbital, and to a lesser extent, benzodiazepines, have been shown experimentally to be effective in preventing convulsions induced by fipronil. Due to slow absorption of fipronil through the gut, symptoms of intoxication may be delayed several hours to one day. Absorption may be decreased by the use of gastric lavage, saline purgative and activated charcoal (possible entero-hepatic recirculation). Continue monitoring – due to the slow elimination of the compound.

5. FIRE FIGHTING MEASURES

- Extinguishing media:** Carbon dioxide, water spray, dry agents, foam.
- Hazards from combustion products:** Toxic thermal decomposition products may include oxides of carbon, sulphur and nitrogen, and compounds of chlorine and fluorine.
- Precautions for fire fighters:** Firefighters should wear full protective gear, including self-contained breathing apparatus (SAA 1716). If possible and without risk, remove intact containers from exposure to fire. Otherwise, spray unopened containers with water to keep cool. Whenever possible, contain fire-fighting water by bunding area with sand or earth to prevent it entering any bodies of water.

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6. ACCIDENTAL RELEASE MEASURES

Avoid contact with eyes, skin and clothing or inhalation of product. Dealing with spills and disposals may result in the potential for increased personal exposure. During such operations it is recommended that the following protective clothing is worn:

- * Cotton overalls buttoned to the neck and wrist
- * Elbow-length PVC gloves
- * Face-shield or goggles

CONTAIN SPILL and absorb with absorbent material such as earth, sand or clay and store in properly labelled, sealed drums for safe disposal in an approved landfill, or bury under at least 500 mm of soil in a non-crop, non-pasture area away from water sources or homes. DO NOT burn empty containers or product. Deal with all spillages immediately. Keep people away and upwind. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

Neutralizing Chemicals: Hydrated lime.

Do not allow entry into treated areas until spray has dried. When prior entry is necessary, wear overalls and chemical resistant gloves. Clothing must be laundered after each day's use.

7. HANDLING AND STORAGE

Handling: Keep out of reach of children.

Storage: Store in the closed, original container in a dry, cool, well-ventilated area, out of direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilizers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure standards: No exposure standard has been assigned by the National Occupational Health and Safety Commission (Worksafe Australia).

Engineering controls: Control process conditions to avoid contact. Use local exhaust ventilation during manufacture. Use in a well-ventilated area only.

Personal Protective Equipment: Eyes: Avoid contact with eyes.

Clothing: Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and washable hat.

Gloves: Elbow-length PVC or nitrile gloves

Respiratory: Do not breathe vapour or spray. Wear an organic cartridge respirator if inhalation is possible.

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

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous cream to yellow suspension
Odour:	Slight vegetable oil smell
Vapour pressure:	Low
Vapour density:	Not available
Boiling point:	Not determined
Freezing/melting point:	Not determined
Solubility:	1.9 mg/L at 20 °C (technical fipronil)
Density:	1.055 g/mL at 20°C
pH:	2.0 to 4.0
Flash Point:	Non-flammable
Flammability (explosive) limits:	Not applicable
Auto-ignition temperature:	Not available
Octanol/water partition coefficient:	Not available
Formulation:	Suspension Concentrate

10. STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use.
Hazardous polymerisation:	None
Conditions to avoid:	Avoid extreme heat and fire.
Incompatible materials:	Not available
Hazardous decomposition products:	Toxic thermal decomposition products may include oxides of carbon, sulphur and nitrogen, and compounds of chlorine and fluorine.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Inhalation:	Harmful if inhaled.
Skin contact:	May irritate skin. Fipronil does not readily penetrate the skin. Repeated exposure may cause allergic disorders.

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Eye contact: May irritate eyes. May cause weeping and redness.

Ingestion: Harmful if swallowed.

Other: None

ANIMAL TOXICITY DATA – PRODUCT:

Acute:

Oral toxicity: LD₅₀ rat: >1999 mg/kg

Dermal toxicity: LD₅₀ rabbit: > 2000 mg/kg

Inhalation toxicity: LC₅₀ (4 h) rat: 1.7 mg/L

Skin irritation: Not irritating – rabbit

Eye irritation: Eye irritant – rabbit

Sensitisation: Not sensitising - guinea pig (technical fipronil)

Chronic:

In a chronic toxicity study, rats receiving the highest dose of fipronil showed an increased incidence of thyroid tumors. The rat thyroid gland is very sensitive to chemicals and functions differently from the human thyroid, and therefore, fipronil is not considered to pose an increased risk of cancer to humans. Similar studies in mice and dogs did not show an increased incidence of thyroid tumors. Fipronil is not mutagenic and not teratogenic.

Animal studies indicate that this product is not a sensitiser however indications from use of other fipronil formulations in veterinary applications suggest that there may be risk of allergic disorders from repeated exposure.

12. ECOLOGICAL INFORMATION

Highly toxic to fish and aquatic organisms. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

Fish toxicity: Acute LC₅₀ (96 h): 0.248 mg /L rainbow trout
(technical fipronil) Acute LC₅₀ (96 h): 0.430 mg/L European carp

Daphnia toxicity: Acute EC₅₀ (48 h): 0.19 mg/L for *Daphnia magna*
(technical fipronil)

Toxicity to algae: Not available
(technical fipronil)

Bird toxicity: Acute oral LD₅₀: >2150 mg/kg mallard duck
(technical fipronil) Acute oral LD₅₀: 31 mg/kg pheasants
Acute oral LD₅₀: 11.3 mg/kg bobwhite quail

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Bee toxicity: Dangerous to bees.

Other: Non-toxic to earthworms.

Environmental fate, persistence and degradation: Fipronil has low mobility in soil.

13. DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. 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 the purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

UN number: 2902
Proper shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S. (contains fipronil)
Class and Subsidiary Risk: 6.1
Packing Group: III
EPG: 34 – Refer to the Dangerous Goods Initial Emergency Response Guide
Hazchem code: 2X

15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Act 1988

National Registration Authority Approval Number: 54624

16. OTHER INFORMATION

Trademark information: Termidor® is a Registered Trademark of Bayer.

Preparation information: Replaces June 14, 2001 edition.
Reason for update: Conversion to 16 heading format.

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

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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