

# MATERIAL SAFETY DATA SHEET

## Racumin® 8 Rat and Mouse Rodenticide

Date of Issue: September 12<sup>th</sup>, 2006

### 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

**Product name:** Racumin® 8 Rat and Mouse Rodenticide  
**Other names:** None  
**Product code:** 4939084 (1 kg), 4939076 (10 kg)  
**Chemical group:** Coumarin  
**Recommended use:** Rodenticide tracking powder and bait concentrate for rat and mouse control  
**Formulation:** Bait concentrate  
**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](http://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

Harmful in contact with skin and if swallowed.

**Hazard designation:** Hazardous according to criteria of Worksafe Australia  
**Risk phrases:** R21/22 Harmful in contact with skin and if swallowed.  
**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 6 (Standard for the Uniform Scheduling of Drugs and Poisons)

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (g/kg):
Coumatetralyl	[5836-29-3]	8
Talc (containing no asbestos fibres)	[14807-96-6]	978 g/kg
Other ingredients (non-hazardous)	-	

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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.**

<b>Inhalation:</b>	Move the patient to fresh air and keep at rest. Seek medical attention if concerned.
<b>Skin contact:</b>	Wash off the skin with soap and water.
<b>Eye contact:</b>	Hold open and flush with water for at least 15 minutes.
<b>Ingestion:</b>	If poisoning via the oral route occurs seek immediate medical advice.
<b>First Aid Facilities:</b>	Provide washing facilities in the workplace (including eye-wash).
<b>Symptoms:</b>	Symptoms of overexposure relate to failure of the blood clotting mechanism and include bleeding gums and failure of blood clotting after skin wounds.
<b>Medical attention:</b>	Coumatetralyl inhibits vitamin K1-dependant coagulation.

#### Symptoms

Symptoms after ingestion (though also toxic via the dermal route) may range from increased bleeding tendency (e.g. gingiva bleeding or nose bleeding) to massive haemorrhage in severe cases. Hematuria, bruisability, vomiting blood, cerebrovascular bleeding are possible.

#### Treatment

Elementary aid, decontamination and symptomatic treatment.

#### Note for physicians

Gastric lavage should be performed in cases of significant ingestions, followed by administration of activated charcoal and sodium sulfate. The antidote for coumatetralyl is vitamin K1. The efficacy of vitamin K1 treatment should be assessed by monitoring the coagulation parameters, such as prothrombin time or INR. Initial treatment may be done with intravenous vitamin K1 in severe cases, while usually oral vitamin K1 should be sufficient. Severe poisoning cases may require the initial application of blood products:

- whole blood
- fresh frozen plasma and fresh blood should be used in cases of severe bleeding to rapidly restore blood clotting factors

Transfusions may be required in cases of significant blood loss.

It is expected that repeated intake of coumatetralyl would be required to cause an actual poisoning, yet it is prudent to control coagulation parameters for several days after ingestions.

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### 5. FIRE FIGHTING MEASURES

**Extinguishing media:** Water spray, carbon dioxide, foam, sand.  
**Hazards from combustion products:** Fine dust may form explosive mixtures in air. In the event of a fire, carbon monoxide gas may be released.  
**Precautions for fire fighters:** Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away and move all other personnel to windward side of fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or other extinguishing agent and spillage safely later.

### 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 drains. Work from up-wind side of spill. Do not inhale dust. Vacuum or sweep 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 operation.

### 7. HANDLING AND STORAGE

**Handling:** Keep out of reach of children. Poisonous if swallowed. Avoid contact with eyes and skin. Do not inhale dust. Do not touch the bait.  
**Storage:** Store in the tightly closed, original container in a dry, well-ventilated area, as cool as possible out of direct sunlight. Destroy untaken baits. Any spillage of bait should be removed immediately. Break, crush, or puncture and bury empty containers in a local authority landfill. If not available bury the container below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure standards:** NOHSC exposure standards have not been established for the active constituent or any excipient in this formulation except:  
Talc                      TWA 2.5 mg/cu metre (NOHSC)

**Engineering controls:** When handling the product use the scoop or measure provided.

**Personal Protective Equipment:** Poisonous if swallowed. Avoid contact with skin and eyes. Do not inhale dust. Do not touch the bait. When using the product, and preparing the product for use, wear elbow length PVC gloves.  
If product on skin and after each baiting, wash thoroughly with soap and water. After use and before drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Violet coloured powder.
<b>Odour:</b>	No specific odour
<b>Vapour pressure:</b>	$8.5 \times 10^{-6}$ mPa (20°C) (coumatetralyl)
<b>Vapour density:</b>	Not relevant
<b>Melting point:</b>	172 – 176 °C (coumatetralyl)
<b>Solubility in water:</b>	425 mg/L at 20°C (coumatetralyl)
<b>Density:</b>	Approx 1 kg/L
<b>pH:</b>	Not relevant
<b>Flash Point:</b>	Not relevant
<b>Flammability</b>	Not relevant
<b>(explosive) limits:</b>	
<b>Auto-ignition temperature:</b>	359 °C
<b>Octanol/water partition coefficient:</b>	Not available
<b>Formulation:</b>	Powder bait for the control of rats and mice

### 10. STABILITY AND REACTIVITY

<b>Chemical stability:</b>	Racumin 8 is not flammable. However, fine dust may form explosive mixtures in air. Avoid strong oxidising agents.
<b>Hazardous polymerisation:</b>	Hazardous polymerisation will not occur.
<b>Conditions to avoid:</b>	Keep away from heat or moisture
<b>Incompatible materials:</b>	Avoid strong oxidising agents.
<b>Hazardous decomposition products:</b>	In the event of a fire, carbon monoxide gas may be released.

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### 11. TOXICOLOGICAL INFORMATION

#### POTENTIAL HEALTH EFFECTS

<b>Inhalation:</b>	Poisonous if inhaled
<b>Skin contact:</b>	May irritate the skin
<b>Eye contact:</b>	May irritate eyes
<b>Ingestion:</b>	Poisonous if swallowed
<b>Other:</b>	Coumatetralyl is a first generation anticoagulant of the warfarin type. Symptoms of overexposure relate to failure of the blood clotting mechanism and include bleeding gums and failure of blood clotting after skin wounds. After one exposure the toxicity of coumatetralyl is relatively low, however if exposure continues over several days the product becomes more toxic. That is, the product must be constantly present in the blood for more than 1 to 2 days in order to be highly toxic. A single exposure, even though relatively large, may not produce toxic symptoms as the compound is quite rapidly metabolised.

ANIMAL TOXICITY DATA – PRODUCT: No data available for the product.

#### ANIMAL TOXICITY DATA – ACTIVE INGREDIENT:

##### Acute:

<b>Oral toxicity:</b>	Acute oral LD <sub>50</sub> : Rat 16.5 mg/kg [Sub-chronic oral LD <sub>50</sub> (5 d): Rat 0.3 mg/kg/day]
<b>Dermal toxicity:</b>	Acute percutaneous LD <sub>50</sub> rat: 100 - 500 mg/kg
<b>Inhalation toxicity:</b>	LC <sub>50</sub> (4 h) for rats 39 mg/m <sup>3</sup>
<b>Skin irritation:</b>	Coumatetralyl is not classified as a skin irritant
<b>Eye irritation:</b>	Coumatetralyl is not classified as an eye irritant
<b>Sensitisation:</b>	Coumatetralyl is not classified as a skin sensitiser

##### Chronic:

The toxicity of the product is greater after repeated exposure than in a single dose.  
Animal tests have shown coumatetralyl not to have any carcinogenic or teratogenic potential.

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### 12. ECOLOGICAL INFORMATION

Do not allow dogs, cats or other mammals to contact this product.  
No other ecological data available.

<b>Fish toxicity:</b>	LC <sub>50</sub> (96h) 48 mg/L (rainbow trout) (coumatetralyl)
<b>Daphnia toxicity:</b>	LC <sub>50</sub> (48h) >14 mg/L (coumatetralyl)
<b>Toxicity to algae:</b>	E <sub>r</sub> C <sub>50</sub> >18 mg/L (coumatetralyl)
<b>Bird toxicity:</b>	Acute oral LD <sub>50</sub> for Japanese Quail >2000 mg/kg bw. Dietary LC <sub>50</sub> (8d) for hens >50 mg/kg bw daily (coumatetralyl)
<b>Bee toxicity:</b>	Not available
<b>Environmental fate, persistence and degradation:</b>	Rapidly decomposed in aqueous solutions exposed to sunlight or UV light: DT <sub>50</sub> c. 1 Hour (coumatetralyl).

### 13. DISPOSAL CONSIDERATIONS

- 1) After intended use: Shake empty container onto baiting site. Do not dispose of undiluted chemicals on-site. Break, crush or puncture and bury empty containers in a local authority landfill. If not available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots.
- 2) After spill or accident: Dispose of sealed containers at an approved local waste disposal site.

### 14. TRANSPORT INFORMATION

<b>UN number:</b>	Not applicable
<b>Proper shipping name:</b>	Not applicable
<b>Class and Subsidiary Risk:</b>	Not "dangerous goods" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
<b>Packing Group:</b>	Not applicable
<b>EPG:</b>	Not applicable
<b>Hazchem code:</b>	Not applicable
<b>Marine Pollutant:</b>	No

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### 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Act 1988

Australian Pesticides and Veterinary Authority Approval Number: 52182

### 16. OTHER INFORMATION

**Trademark information:** Racumin® is a trademark of Bayer.

**Preparation information:** Replaces May 15, 2004 edition.  
Reason for update: First Aid Measures, Hazards from Combustion Products, Accidental Release Measures, Storage.

**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