SECTION 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: Racumin® Rat and Mouse Paste
Other names: None
Product code (UVP): 05141435
Recommended use: Rodenticide
Chemical formulation: Bait (ready for use) (RB)
Company: Bayer New Zealand Limited
3 Argus Place
Glenfield
Auckland
New Zealand
Telephone: 0800 227 012
Facsimile: 0800 227 011
Website: www.bayeres.com.au
Emergency telephone no.: 0800 734 607 Orica SH&E Shared Services (24hr)

SECTION 2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE

Emergency Overview

Hazardous classification: Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
HSNO classifications: 6.9B, 9.1D.
May cause organ damage from repeated oral exposure.
May be harmful to aquatic life.
GHS pictogram:
Signal word: Warning.
R-phrase(s): None allocated.
S-phrase(s): See sections 4, 5, 6, 7, 8, 10, 13.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Coumatetralyl 0.375 g/kg

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coumatetralyl</td>
<td>5836-29-3</td>
<td>0.0375</td>
</tr>
<tr>
<td>Other ingredients (non-hazardous) to 100 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 4. FIRST AID MEASURES

In case of poisoning by any exposure route contact the National Poisons and Hazardous Chemicals Information Centre, P.O. Box 913, Dunedin. Phone 0800 764 766, 0800 POISON and follow the advice given. Show this Safety Data Sheet to the doctor.

Workplace facilities
Ensure washing facilities are available.

Skin contact
Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion
Do NOT induce vomiting. Rinse mouth. Call a physician or poison control center immediately.

Notes to physician

Symptoms
State of shock, nose bleeding, bloody vomiting, abdominal pain, back pain.

Treatment
Treat symptomatically.
Antidote: Vitamin K₁. Cases of severe poisoning may require the usual measures like application of blood products or transfusions.
In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.

SECTION 5. FIRE FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media which should not be used for safety reasons
High volume water jet.

Hazards from combustion products
Dangerous gases are evolved in the event of a fire.

Precautions for fire-fighting
In the event of fire, wear self-contained breathing apparatus.
In the event of fire and/or explosion do not breathe fumes.
Contain the spread of the fire-fighting media.
Do not allow run-off from fire-fighting to enter drains or water courses.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid contact with spilled product or contaminated surfaces.
Use personal protective equipment.

Environmental precautions
Do not allow to get into surface water, drains and ground water.

Methods for cleaning up
Use mechanical handling equipment.
Collect and transfer the product into a properly labelled and tightly closed container.
- For quantities up to 50 kg of product bury in a secure approved landfill site.
- For quantities greater than 50 kg seek advice from the manufacturer (use emergency contact number) before attempting disposal. Contain in a secure location until disposal method is established.
Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

Additional advice
Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7. HANDLING AND STORAGE

Handling
Hygiene measures:
Avoid contact with skin, eyes and clothing.
Keep working clothes separately.
Wash hands before breaks and immediately after handling the product.
Remove soiled clothing immediately and clean thoroughly before using again.
Garments that cannot be cleaned must be destroyed (burnt).

Storage
Requirements for storage areas and containers:
Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in original container.
Store in a place accessible by authorized persons only.

Advice on common storage:
Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coumatetralyl</td>
<td>5836-29-3</td>
<td>0.01 mg/m³ (TWA)</td>
<td></td>
<td>OES BCS</td>
</tr>
</tbody>
</table>

For further details on the Occupational Exposure Standards, see Section 16.
Personal protective equipment - End user
General advice: Prior to use; please read the product label for safe use.
Hand protection The use of rubber gloves is recommended as good practice.

Engineering controls
Advice on safe handling:
No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: Pasty to solid
Colour: Blue
Odour: Weak, characteristic

Safety data
pH: No data available
Melting point/range: > 200 °C
Flash point: No data available
Flammability (solid, gas): The product is not highly flammable.
Ignition temperature: 425 °C
Autoignition temperature: ca. 207 °C
Upper explosion limit: No data available
Lower explosion limit: No data available
Vapour pressure: No data available
Relative vapour density: No data available
Density: ca. 1.19 g/cm³ at 20 °C
Water solubility: Not dispersible
Partition coefficient: n-octanol/water
Impact Sensitivity: Not impact-sensitive
Combustion number: CN3 Local combustion without spreading at 20 °C
Oxidizing properties: No oxidizing properties
Explosivity: Not explosive
SECTION 10. STABILITY AND REACTIVITY

Chemical stability: Stable under recommended storage conditions.

Conditions to avoid: Extreme heat and fire.

Incompatible materials: None known.

Thermal decomposition: From 110 °C.

Hazardous reactions: No hazardous reactions when stored and handled according to prescribed instructions.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential health effects

Ingestion: Harmful if swallowed.

Inhalation: Inhalation of the paste formulation is unlikely.

Animal toxicity studies

Acute oral toxicity: LD₅₀ (rat) 1,000 mg/kg

Acute dermal toxicity: LD₅₀ (rat) > 4,000 mg/kg

Skin irritation: No skin irritation (rabbit).

Eye irritation: No eye irritation (rabbit).

Sensitisation: Non-sensitizing (mouse).

OECD Test Guideline 429, local lymph node assay (LLNA)

HSNO classification

6.9B.

May cause organ damage from repeated oral exposure.

Assessment mutagenicity

Coumatetralyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Coumatetralyl is not considered carcinogenic.

Assessment toxicity to reproduction

Coumatetralyl is not considered a reproductive toxicant at non-maternally toxic dose levels.

Assessment developmental toxicity

Coumatetralyl did not cause developmental toxicity in rats and rabbits.

Chronic toxicity

Because of antivitamin K properties of the active ingredient, absorption can inhibit blood coagulation and cause haemorrhagic syndrome.
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects
Toxicity to fish: LC$_{50}$ (Rainbow trout (Oncorhynchus mykiss)) 53 mg/L
Exposure time: 96 h
The value mentioned relates to the active ingredient.

Toxicity to aquatic invertebrates: EC$_{50}$ (Water flea (Daphnia magna)) > 14 mg/L
Exposure time: 48 h
The value mentioned relates to the active ingredient.

Toxicity to aquatic plants: IC$_{50}$ (Desmodesmus subspicatus) > 18 mg/L
Growth rate Exposure time: 96 h
The value mentioned relates to the active ingredient.

HSNO classification
9.1D.
May be harmful to aquatic life.

SECTION 13. DISPOSAL CONSIDERATIONS

Product
Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.

Container
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.

SECTION 14. TRANSPORT INFORMATION

According to national and international transport regulations not classified as dangerous goods.

SECTION 15. REGULATORY INFORMATION

EPA approval number: APPROVED PURSUANT TO THE HSNO ACT 1996, No. HSR001605.
See www.epa.govt.nz for approval controls.

ACVM approval: REGISTERED PURSUANT TO THE ACVM ACT 1997, NO. V005300.
See www.maf.govt.nz for registration conditions.

See also Section 2.

SECTION 16. OTHER INFORMATION

Trademark information
Racumin® is registered trademark of the Bayer Group.
This SDS 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 SDS 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.

**Further details on the Occupational Exposure Standards mentioned in Section 8:**

**CEILING:** Ceiling Limit Value

**OES BCS:** Internal Bayer CropScience "Occupational Exposure Standard"

**PEAK:** Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

**STEL:** Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.

**SKIN_DES:** Skin notation: Absorption through the skin may be a significant source of exposure.

**TWA:** Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

END OF SDS