SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier
Trade name: Racumin® Rat and Mouse Paste
Product code (UVP): 05141435

1.2 Relevant identified uses of the substance or mixture and uses advised against
Use: Rodenticide

1.3 Details of the supplier of the safety data sheet
Supplier: Bayer CropScience Pty Ltd.
ABN 87 000 226 022
Level 1, 8 Redfern Road
3123 Hawthorn East
Victoria
Australia

Telephone: (03) 9248 6888
Telefax: (03) 9248 6800
Responsible Department: 1800 804 479 Technical Information Service
Website: www.environmentalscience.bayer.com.au

1.4 Emergency telephone no.
Emergency telephone no.: 1800 033 111 IXOM Operations Pty Ltd

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Australia. GHS Hazardous Chemical Information List (Hazardous Substances Information System (HSIS))
Acute toxicity: Category 4
H302 Harmful if swallowed.

2.2 Label elements
Hazard label for supply/use required.

Hazardous components which must be listed on the label:
Coumatetralyl

Signal word: Warning

Hazard statements
H302 Harmful if swallowed.

Precautionary statements
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
P330 Rinse mouth.
P501 Dispose of contents/container in accordance with local regulation.
2.3 Other hazards
No other hazards known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
Coumatetralyl 0.0375 % w/w
Chemical nature Bait (ready for use) (RB)

<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

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.

4.1 Description of first aid measures
General advice
The nature of this product, when contained in commercial packs, makes spillage unlikely. However, if significant amounts are spilled nevertheless, the following advice is applicable. Move out of dangerous area. When symptoms develop and persist, seek medical advice.

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. Call a physician or poison control center immediately. Rinse mouth. If swallowed, seek medical advice immediately and show this container or label.

4.2 Most important symptoms and effects, both acute and delayed
Symptoms
If large amounts are ingested, the following symptoms may occur:
State of shock, Nose bleeding, Bloody vomiting, Abdominal pain, Back pain
Symptoms and hazards refer to effects observed after intake of significant amounts of the active ingredient(s).

4.3 Indication of any immediate medical attention and special treatment needed
Treatment

Treat symptomatically. Antidote: Vitamine 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

5.1 Extinguishing media

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

Unsuitable
High volume water jet

5.2 Special hazards arising from the substance or mixture

Dangerous gases are evolved in the event of a fire.

5.3 Advice for firefighters

Special protective equipment for firefighters
In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.

Further information
Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

Hazchem Code
Not applicable

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

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

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up
Use mechanical handling equipment. Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

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

7.1 Precautions for safe handling
Safety Data Sheet

Racumin® Rat and Mouse Paste

Version 2 / AUS

Revision Date: 17.06.2016
Print Date: 17.06.2016

102000007452

Advice on safe handling
No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. For personal protection see section 8.

Advice on protection against fire and explosion
No special precautions required.

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).

7.2 Conditions for safe storage, including any incompatibilities

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. Keep away from direct sunlight. Do not store at a temperature above 40 °C.

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

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 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>

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

8.2 Exposure controls

Personal protective equipment - End user

Hand protection
Rubber gloves

Engineering Controls

Advice on safe handling
No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. For personal protection see section 8.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form       paste
Colour     blue
Odour      weak, characteristic
Melting point/range  > 200 °C
Flammability (solid, gas)  The product is not highly flammable.
Ignition temperature  425 °C
**Auto-ignition temperature**  ca. 207 °C 
**Density**  ca. 1.19 g/cm³ at 20 °C 
**Water solubility**  Not dispersible 
**Partition coefficient: n-octanol/water**  Coumatetralyl: log Pow: 1.5 
**Impact sensitivity**  Not impact sensitive. 
**Burning number**  CN3 Local combustion without spreading at  20 °C 
**Oxidizing properties**  No oxidizing properties 
**Explosivity**  Not explosive 

**SECTION 10. STABILITY AND REACTIVITY**

10.1 Reactivity 
**Thermal decomposition**  from 110 °C 

10.2 Chemical stability  Stable under recommended storage conditions. 

10.3 Possibility of hazardous reactions  No hazardous reactions when stored and handled according to prescribed instructions. 

10.4 Conditions to avoid  Extremes of temperature and direct sunlight. 

10.5 Incompatible materials  Store only in the original container. 

10.6 Hazardous decomposition products  No decomposition products expected under normal conditions of use. 

**SECTION 11. TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects 
**Acute oral toxicity**  LD50 (Rat)  1,000 mg/kg 
**Acute inhalation toxicity**  During intended and foreseen applications, no respirable aerosol is formed. 
**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) 

**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.

Assessment repeated dose toxicity
Coumatetralyl caused inhibition of blood coagulation possibly causing hemorrhagic syndrome in animal studies. The toxic effects of Coumatetralyl are related to antivitamin K properties.

Aspiration hazard
Based on available data, the classification criteria are not met.

Information on likely routes of exposure
Inhalation not likely., Toxic by inhalation.
No skin irritation
No eye irritation
Ingestion of large amounts may be harmful (see Signs and Symptoms).

Early onset symptoms related to exposure
Refer to Section 4

Delayed health effects from exposure
Refer to Section 11

Exposure levels and health effects
Refer to Section 4

Interactive effects
Not known

When specific chemical data is not available
Not applicable

Mixture of chemicals
Refer to Section 2.1

Further information
No further toxicological information is available.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish
LC50 (Oncorhynchus mykiss (rainbow trout)) 53 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient.

Toxicity to aquatic
EC50 (Daphnia magna (Water flea)) > 14 mg/l
invertebrates
Exposure time: 48 h
The value mentioned relates to the active ingredient.

Toxicity to aquatic plants
IC50 (Desmodesmus subspicatus (green algae)) > 18 mg/l
Growth rate; Exposure time: 96 h
The value mentioned relates to the active ingredient.

12.2 Persistence and degradability
Biodegradability
Coumatetralyl:
Not rapidly biodegradable
Koc
Coumatetralyl: Koc: 453

12.3 Bioaccumulative potential
Bioaccumulation
Coumatetralyl: Bioconcentration factor (BCF) 3 - 11
Does not bioaccumulate.

12.4 Mobility in soil
Mobility in soil
Coumatetralyl: Moderately mobile in soils

12.5 Other adverse effects
Additional ecological information
No other effects to be mentioned.

SECTION 13. DISPOSAL CONSIDERATIONS
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
Registered according to the Agricultural and Veterinary Chemicals Code Act 1994
Australian Pesticides and Veterinary Medicines Authority approval number: 51508

Hazardous Classification
Hazardous (National Occupational Health and Safety Commission - NOHSC)

SUSMP classification (Poison Schedule)
Schedule 5 (Standard for the Uniform Scheduling of Medicines and Poisons)
SECTION 16. OTHER INFORMATION

Trademark information  Racumin® is a 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.

Abbreviations and acronyms

ADN  European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR  European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE  Acute toxicity estimate
AU OEL  Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)
CAS-Nr.  Chemical Abstracts Service number
CEILING  Ceiling Limit Value
Conc.  Concentration
EC-No.  European community number
ECx  Effective concentration to x %
EINECS  European inventory of existing commercial substances
ELINCS  European list of notified chemical substances
EN  European Standard
EU  European Union
IATA  International Air Transport Association
IBC  International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx  Inhibition concentration to x %
IMDG  International Maritime Dangerous Goods
LCx  Lethal concentration to x %
LDx  Lethal dose to x %
LOEC/LOEL  Lowest observed effect concentration/level
MARPOL  MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.  Not otherwise specified
NOEC/NOEL  No observed effect concentration/level
OECD  Organization for Economic Co-operation and Development
OES BCS  OES BCS: Internal Bayer CropScience “Occupational Exposure Standard”
PEAK  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.
RID  Regulations concerning the International Carriage of Dangerous Goods by Rail
SK-SEN  Skin sensitiser
SKIN_DES  SKIN_DES: Skin notation: Absorption through the skin may be a significant source of exposure.
STEL  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.

TWA  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.

TWA  Time weighted average

UN  United Nations

WHO  World health organisation

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

END OF SDS