Safety Data Sheet

Racumin® 8 Rat and Mouse Rodenticide

Version 1 / AUS
102000006466

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SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Trade name	Racumin® 8 Rat and Mouse Rodenticide
Product code (UVP)	00864870

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

Classification in accordance with Australian GHS Regulation

Reproductive toxicity: Category 1B
H360D May damage the unborn child.

Chronic aquatic toxicity: Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to specific Australian legislation

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

Coumatetralyl

Signal word: Danger

Hazard statements

H360D May damage the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.

P202	Do not handle until all safety precautions have been read and understood.
P281	Use personal protective equipment as required.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P405	Store locked up.
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 8 g/kg
Contact powder (CP)

Chemical name	CAS-No.	Concentration [%]
Coumatetralyl	5836-29-3	0.80
Talc	14807-96-6	> 1.00
Other ingredients (non-hazardous) to 100%		

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
Move out of dangerous area. When symptoms develop and persist, seek medical advice. Place and transport victim in stable position (lying sideways).

Inhalation
Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact
Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. Call a physician or poison control center immediately.

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.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
If large amounts are ingested, the following symptoms may occur:

Internal and external bleeding, shock possible

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

Risks	Because of antivitamin K properties of the active ingredient, absorption can inhibit blood coagulation and cause haemorrhagic syndrome.
Treatment	Treat symptomatically. Antidote: Vitamine K1. Cases of severe poisoning may require the usual measures like application of blood products or transfusions. Necessity and efficacy have to be assessed by INR. 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. Monitor: blood picture.

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. Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

5.3 Advice for firefighters

Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
Further information	Evacuate personnel to safe areas. Fight fire from upwind position. Whenever possible, contain fire-fighting water by diking area with sand or earth. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Hazchem Code	2Z

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions	An emergency shower must be readily accessible to the work area. Use personal protective equipment. Avoid contact with spilled product or contaminated surfaces. Keep people away from and upwind of spill/leak. Do not breathe dust.
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

Avoid dust formation. Use mechanical handling equipment. Clean with detergents. Avoid solvents. Clean contaminated floors and objects thoroughly, observing environmental regulations. Dike area to prevent runoff. Collect and transfer the product into a properly labelled and tightly closed container. 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

Advice on safe handling

Avoid dust formation. No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.

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 cool, well-ventilated place. Store in original container. Store in a place accessible by authorized persons only. Keep away from direct sunlight. Protect from frost.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Coumatetralyl	5836-29-3	0.01 mg/m3 (TWA)		OES BCS*
Talc	14807-96-6	2.5 mg/m3 (TWA)	12 2011	AU NOEL

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

8.2 Exposure controls

Respiratory protection

Wear respirator with a particle filter mask (protection factor 20) conforming to European Norm EN149FFP3 or EN140P3 or equivalent.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Material	Nitrile rubber
Rate of permeability	> 480 min
Glove thickness	> 0.4 mm
Protective index	Class 6
Directive	Protective gloves complying with EN 374.

Eye protection

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection

Wear standard coveralls and Category 3 Type 4 suit.
If there is a risk of significant exposure, consider a higher protective type suit.
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.
If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

General protective measures

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the above mentioned recommendations would apply.

Engineering Controls

Advice on safe handling

Avoid dust formation. No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	powder
Colour	violet
Bulk density	ca. 1,000 kg/m3
Partition coefficient: n-octanol/water	Coumatetralyl: log Pow: 1.5 at 20 °C at pH 7

9.2 Other information Further safety related physical-chemical data are not known.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

Thermal decomposition Stable under normal conditions.

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 Exposure to moisture.
Elevated temperatures

10.5 Incompatible materials Strong oxidizing agents

10.6 Hazardous decomposition products Carbon monoxide

No decomposition products expected under normal conditions of use.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity LD50 (Rat) > 5,000 mg/kg
Test conducted with a similar formulation.

Acute inhalation toxicity LC50 (Rat) > 3.3 mg/l
Exposure time: 4 h
Highest attainable concentration.
Determined in the form of dust.
Test conducted with a similar formulation.

Acute dermal toxicity LD50 (Rat) > 5,000 mg/kg
Test conducted with a similar formulation.

Skin corrosion/irritation No skin irritation (Rabbit)
Test conducted with a similar formulation.

Serious eye damage/eye irritation No eye irritation (Rabbit)
The information is derived from the properties of the individual components.

Respiratory or skin sensitisation Non-sensitizing. (Guinea pig)
The information is derived from the properties of the individual components.

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: May damage the unborn child.

Assessment STOT Specific target organ toxicity – single exposure

Coumatetralyl: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

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

Toxic by inhalation.
May cause skin irritation., Harmful if absorbed through skin.
May cause eye irritation.
Harmful if swallowed.

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

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.
Chronic toxicity to fish	Oncorhynchus mykiss (rainbow trout) NOEC: 5 µg/l Exposure time: 21 d The value mentioned relates to the active ingredient.

Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) > 14 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient.
Chronic toxicity to aquatic invertebrates	NOEC (Daphnia magna (Water flea)): 0.1 mg/l Exposure time: 21 d 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 coumatetralyl.
Toxicity to other organisms	LD50 (Coturnix japonica (Japanese quail)) The value mentioned relates to the active ingredient coumatetralyl.

12.2 Persistence and degradability

Biodegradability	Coumatetralyl: < 60 %, Not readily biodegradable.
Koc	Coumatetralyl: Koc: 258

12.3 Bioaccumulative potential

Bioaccumulation	Coumatetralyl: Bioconcentration factor (BCF) 11.4 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

ADG

UN number	**3077**
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COUMATETRALYL MIXTURE)
Hazchem Code	2Z

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code.

IMDG

UN number	**3077**
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COUMATETRALYL MIXTURE)

IATA

UN number	**3077**
Transport hazard class(es)	9
Subsidiary Risk	None
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COUMATETRALYL MIXTURE)

SECTION 15. REGULATORY INFORMATION

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994

Australian Pesticides and Veterinary Medicines Authority approval number: 52182

SUSMP classification (Poison Schedule)

Schedule 6 (Standard for the Uniform Scheduling of Medicines and Poisons)

SECTION 16. OTHER INFORMATION

Trademark information Racumin® is a Registered Trademark of the Bayer Group.

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 AG, Crop Science Division "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

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.

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