SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Trade name RACUMIN FOAM
Product code (UVP) 80260997

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 Environmental Science
230 Cambridge Science Park
Milton Road
Cambridge
Cambridgeshire CB4 0WB
United Kingdom
Telephone 00800-1214 9451
Telefax +44(0)1223 426240
Responsible Department Email: ukinfo@bayercropscience.com

1.4 Emergency telephone no.
Emergency telephone no. 00800 1020 3333 (24 hr)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.
Flammable aerosols: Category 1
H222 Extremely flammable aerosol.
Reproductive toxicity: Category 1B
H360D May damage the unborn child.
Specific target organ toxicity - repeated exposure: Category 2
H373 May cause damage to organs (Blood) through prolonged or repeated exposure.
Eye irritation: Category 2
H319 Causes serious eye irritation.
Chronic aquatic toxicity: Category 2
H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements
Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.
Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Coumatetralyl
- Isotridecylalcohol-6-ethoxylate
- Butane
- Propane

Signal word: Danger

Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H360D May damage the unborn child.
H373 May cause damage to organs (Blood) through prolonged or repeated exposure.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
Restricted to professional users.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.
P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

2.3 Other hazards

Pressurised container, heating will cause pressure rise with a risk of bursting.
Because of antivitamin K properties of the active ingredient, absorption can inhibit blood coagulation and cause haemorrhagic syndrome.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Aerosol dispenser (AE)
Coumatetralyl 0,4 %

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS-No. / Classification</th>
<th>Conc. [%]</th>
</tr>
</thead>
</table>
SECTION 4: FIRST AID MEASURES

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. 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.

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: Vitamin 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: FIREFIGHTING 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
In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

Further information
Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. 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

6.1 Personal precautions, protective equipment and emergency procedures
Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment. Remove all sources of ignition.

When dealing with a spillage do not eat, drink or smoke.

6.2 Environmental precautions
Do not allow to get into surface water, drains and ground water. If spillage enters drains leading to sewage works inform local water company immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).
6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

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. Clean contaminated floors and objects thoroughly, observing environmental regulations. Collect and transfer the product into a properly labelled and tightly closed container.

Additional advice

Check also for any local site procedures.

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

No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

The product is extremely flammable. Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge. Fire or intense heat may cause violent rupture of packages.

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

BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep out of reach of children and animals. Keep away from direct sunlight. Protect from freezing.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Suitable materials

Aluminium with interior coating

7.3 Specific end use(s)

Refer to the label and/or leaflet.

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>
8.2 Exposure controls

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

Personal protective equipment
In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection
Respiratory protection is not required under anticipated circumstances of exposure.
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.
Personal protective equipment is not normally required. However, if there is a risk of uncontrolled exposure to the contents, the following should be considered.

Material: Nitrile rubber
Rate of permeability: > 480 min
Glove thickness: > 0.4 mm
Protective index: Class 6

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

Skin and body protection
Wear standard coveralls and Category 3 Type 6 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.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Form: aerosol
Colour: dark blue
Odour: weak, characteristic
Density: ca. 0.95 g/cm³ at 20 °C
Water solubility: miscible
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
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: ATE (Mix) (Rat) > 2,000 mg/kg
Acute toxicity estimate
Calculation method

Acute inhalation toxicity: ATE (Mix) (Rat) > 5.0 mg/l
Acute toxicity estimate
Calculation method

Acute dermal toxicity: ATE (Mix) (Rat) > 5,000 mg/kg
Acute toxicity estimate
Calculation method

Skin irritation: No skin irritation (Rabbit)
The information is derived from the properties of the individual components.

**Eye irritation**
Irritating to eyes. (Rabbit)
The information is derived from the properties of the individual components.

**Sensitisation**
Non-sensitizing. (Guinea pig)
The information is derived from the properties of the individual components.

**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.

**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.

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

---

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1 Toxicity**

<table>
<thead>
<tr>
<th>Toxicty to fish</th>
<th>LC50 (Oncorhynchus mykiss (rainbow trout))</th>
<th>53 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time: 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The value mentioned relates to the active ingredient coumatetralyl.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chronic toxicity to fish**

<table>
<thead>
<tr>
<th>Oncorhynchus mykiss (rainbow trout)</th>
<th>NOEC: 5 µg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time: 21 d</td>
<td></td>
</tr>
<tr>
<td>The value mentioned relates to the active ingredient.</td>
<td></td>
</tr>
</tbody>
</table>

**Toxicity to aquatic invertebrates**

<table>
<thead>
<tr>
<th>EC50 (Daphnia magna (Water flea))</th>
<th>&gt; 14 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time: 48 h</td>
<td></td>
</tr>
<tr>
<td>The value mentioned relates to the active ingredient coumatetralyl.</td>
<td></td>
</tr>
</tbody>
</table>

**Chronic toxicity to aquatic invertebrates**

<table>
<thead>
<tr>
<th>NOEC (Daphnia magna (Water flea)): 0.1 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time: 21 d</td>
</tr>
<tr>
<td>The value mentioned relates to the active ingredient.</td>
</tr>
</tbody>
</table>

**Toxicity to aquatic plants**

<table>
<thead>
<tr>
<th>IC50 (Desmodesmus subspicatus (green algae))</th>
<th>&gt; 18 mg/l</th>
</tr>
</thead>
</table>


Growth rate; Exposure time: 96 h  
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 Results of PBT and vPvB assessment

PBT and vPvB assessment  
Coumatetralyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information  
No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product  
Disposal of the liquid product when not contained in the aerosol container by incineration in an appropriately licensed commercial incinerator.  
Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging  
Ensure aerosol container is empty before disposal.  
Dispose of empty and cleaned packaging safely.  
Not completely emptied packagings should be disposed of as hazardous waste.

Waste key for the unused product  
16 05 04* gases in pressure containers (including halons) containing hazardous substances

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN

14.1 UN number  
1950
14.2 Proper shipping name  
AEROSOLS
14.3 Transport hazard class(es)  
2.1
14.4 Packing group  
NOT APPLICABLE.
14.5 Environm. Hazardous Mark  
NO
Hazard no.  
NOT APPLICABLE.
Tunnel Code  
D
This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

**IMDG**
14.1 UN number 1950
14.2 Proper shipping name AEROSOLS
14.3 Transport hazard class(es) 2.1
14.4 Packing group NOT APPLICABLE.
14.5 Marine pollutant NO

**IATA**
14.1 UN number 1950
14.2 Proper shipping name AEROSOLS, FLAMMABLE
14.3 Transport hazard class(es) 2.1
14.4 Packing group NOT APPLICABLE.
14.5 Environm. Hazardous Mark NO

**UK ‘Carriage’ Regulations**
14.1 UN number 1950
14.2 Proper shipping name AEROSOLS
14.3 Transport hazard class(es) 2.1
14.4 Packing group NOT APPLICABLE.
14.5 Environm. Hazardous Mark NO

**14.6 Special precautions for user**
See sections 6 to 8 of this Safety Data Sheet.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**
No transport in bulk according to the IBC Code.

**SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**UK and Northern Ireland Regulatory References**
This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.

**Transport**
Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No 1348)
Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No 2367)

**Supply and Use**
Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716)
Chemical (Hazard Information and Packaging for Supply) (Northern Ireland) Regulations 2009
Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No 2677)
EH40 Occupational Exposure Limits - Table 1 List of approved workplace exposure limits
Control of Pesticide Regulations 1986
Dangerous Substances and Explosive Atmospheres Regulations 2002

Waste Treatment

Environmental Protection Act 1990, Part II
Environmental Protection (Duty of Care) Regulations 1991
The Waste Management Licensing Regulations 1994 (as amended)
Hazardous Waste Regulations 2005 (Replacing Special Waste Regulations 1996 as amended)
Landfill Directive
Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94)
Water Resources Act 1991
Anti-Pollution Works Regulations 1999

Further information

WHO-classification: III (Slightly hazardous)

15.2 Chemical safety assessment

A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION

Text of the hazard statements mentioned in Section 3

H220 Extremely flammable gas.
H300 Fatal if swallowed.
H302 Harmful if swallowed.
H310 Fatal in contact with skin.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H372 Causes damage to organs (Blood) through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

SI Statutory Instrument
EH40 WEL Worker Exposure Limit
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
CAS-Nr. Chemical Abstracts Service number
ECx Effective concentration to x %
EC-No. European community number
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
Conc. Concentration
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
RID Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA Time weighted average
UN United Nations
WHO World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Reason for Revision: Safety Data Sheet according to Regulation (EU) No. 2015/830. The following sections have been revised: Section 2: Hazards Identification. Section 3: Composition / Information on Ingredients. Section 4: First Aid Measures. Section 6. Accidental Release Measures. Section 7: Handling and Storage. Section 8: Exposure Controls / Personal Protection.

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

The above information is intended to give general health and safety guidance on the storage and transport of the product.
It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.
The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.
The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.
No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.