



MATERIAL SAFETY DATA SHEET

K.O. RAT BRODIFACOUM 25ppm

1. IDENTIFICATION OF THE PREPARATION AND THE COMPANY

1.1. Identification of the formulation

Product name: K.O. RAT BRODIFACOUM 25ppm
Type of biocide: Rodenticide
Type of formulation: Blocks

1.2. Use of the substance or preparation Rodenticide

1.3. Identification of the company

Company placing the product onto the market: MYLVA S.A.
Via Augusta, 48
08006- Barcelona (SPAIN)
Telephone: 934153226 Fax: 934156344
E-Mail: mylva@mylva.eu

1.4. Emergency Telephone Telephone: 93.760.14.71

2. DANGER IDENTIFICATION

2.1. Classification according to R1272/2008 (CLP)

Specific target organ toxicity (repeated exposure), category 2.

2.2. Label elements:



CAUTION

Hazard Statements

H373 May cause damage to organs (blood) through prolonged or repeated exposure

Precautionary Statements

P102 Keep out of reach of children.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P501 Dispose of contents/ container, as well as dead rodents, in accordance with local regulation

2.3. Other dangers

The main symptom of anticoagulant poisoning is haemorrhagic diathesis, whose cause is the antiprothrombin effect due to a prolonged exposure of the prothrombin. It could be evident between 24 and 72 hours (A normal prothrombin time doesn't exclude the diagnosis).

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Composition	Brodifacoum	0,0025 % w/w
	Bitter tasting substance	0,001 % w/w
	Excipients	up to 100%

3.2. Dangerous components

<u>CAS No.</u>	<u>CHEMICAL NAME</u>
56073-10-0	Brodifacoum

CLASSIFICATION ACCORDING TO R1272/2008 (CLP)

Acute toxic: 1; Skin. Sens. 1A, STOT RE: 2
Aquatic Acute: 1, Chronic aquatic: 1,
H300, H310, H330; H372; H400; H410;



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4. FIRST AID MEASURES

4.1. First aid measures

Remove the person from contaminated area. Take off all contaminated clothing. Wash eyes with plenty of water for at least 15 minutes, do not forget to remove contact lenses. Wash skin with abundant water and soap, without rubbing. Do not administer anything by mouth. In case of ingestion, DO NOT induce vomiting. Let the patient rest. Maintain body temperature. Control breathing, if necessary via artificial respiration. If the patient is unconscious, lie him down on his side with his head in a lower position than the rest of his body and semi bent knees. Take the patient to hospital, and if possible, always take the label or container with you

DON'T LEAVE THE PERSON UNATTENDED.

4.2. Therapeutic measures

Haemorrhagic diathesis, whose cause is the antiprothrombin effect due to a prolonged exposure of the prothrombin. It could be evident between 24 and 72 hours (A normal prothrombin time doesn't exclude the diagnosis).

4.3. Medical indications and special treatments that should be applied immediately:

In case of ingestion, if less than two hours from the ingestion, administrate 25g of activated carbon.

Antidote: K1 Vitamin (phytomenadione). Control the prothrombin time or INR. Symptomatic treatment.

In case of poisoning, call the Instituto Nacional de Toxicología:

Telephone: (34) 91 562 04 20

5. FIRE- FIGHTING MEASURES

5.1. Combustibility: No

Correct means of extinguishing fire

Pulverized water (do not apply jet directly), foam, chemical powder and CO₂.

5.2. Special risks during the fire extinction

Refrigerate exposed equipment with water spray. In cases of fire fighting in enclosed spaces, self contained breathing apparatus should be used. Measures must be taken to prevent the contaminating extinction agent from filtering into the ground or spreading uncontrollably. Strong smoke production.

5.3. Fire protection equipment

Use autonomous respiratory equipment to protect against smoke and also use protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protection equipment and emergency measures

Secure adequate ventilation. Wear suitable respiratory protection equipment.

6.2. Measures to protect the environment

Avoid contamination of drains, surface and subterranean water systems, as well as the ground.

6.3. Cleaning method

Recover the product from the affected surface and recover water from the washing for treatment. In the case of spillage into water, avoid spreading using adequate barrier devices. The recovered product must be eliminated according to local legislation. Contact the relevant authorities if the situation cannot be controlled.

7. HANDLING AND STORAGE

7.1. Safety use instructions:

Avoid contact with eyes and skin.



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7.2. Special storage instructions:

Keep the recipient well closed. Store in a cool and well-aired place.

Keep away from light and humidity. Keep away from ignition source.
Storage at a temperature between 0°C and 45°C.

7.1. Specific use:

Rodenticide

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE LIMITS

8.1. Maximum exposure limits for professionals

Not established.

EXPOSURE CONTROL

8.2. Professional exposure control

Respiratory protection:

Recommended but not necessary if the level of smoke is correct.

Protection of hands:

Use protective nitrile gloves.

Protection of eyes:

Not necessary. Use face shield when eye contact susceptible to be produced.

Protection of skin:

Use appropriate protection equipment.

8.3. Environmental exposure controls :

The product must to be manipulated and stored fulfilling the local legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Physical:	Solid
Appearance:	Block
Colour:	Blue
Smell:	No smell

9.2. Information concerning health, safety and the environment

Ignition point:	N.A.
Boiling point:	N.A.
Solubility in water:	No soluble
Explosive properties:	N.A.
Distillation interval:	N.A.
Vapour pressure:	N.A.
Density relative to 20 °C:	N.A.
pH :	N.A.
Viscosity:	N.A.

10. STABILITY AND REACTIVITY

10.1. Chemical reactivity:

Not described.

10.2. Chemical stability:

Stable in standard conditions.

10.3 Hazardous reactions:

Not described



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10.4. Conditions to be avoided:

This type of product are stables and present no risk in normal use conditions.

10.5. Materials to avoid:

Prolonged exposition to water could provoque lost of palatability of the product.

10.5. Hazardous decomposition products:

Not applicable.

11. TOXICOLOGICAL INFORMATION

11.1. Information about toxicological effects:

ACUTE TOXICITY

Oral:	DL ₅₀ > 5.400 mg/kg.	(rats)
Dermal:	DL ₅₀ > 5.000 mg/kg.	(rats)
Inhalation:	DL ₅₀ > Not applicable.	

DANGEROUS EFFECTS FOR THE HEALTH

Eyes and Skin

Brodaficoum: No data available.

LONG AND SHORT TERM STUDIES

Sensitizing

Brodaficoum: No data available.

Carcinogenicity:

Brodaficoum: No data available.

Mutagenicity:

Brodaficoum: No data available.

Reproductive toxicity:

Brodaficoum: No data available.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity: No bioaccumulation. No dangerous product for bees.

12.2. Persistence and degradability: Metabolized slowly in soil.
Aerobic Test: Average life 53 days.
Anaerobic Test: Average life 60 days.

12.3. Bio-Accumulation: No data.

12.4. Mobility: Product immiscible in water. Remains virtually immobile due to the medium, grain, flour, etc..

12.5. Results of PBT and vPvB: Not applicable

12.5. Other adverse effects: Not described

13. DISPOSAL CONSIDERATIONS

13.1. Product disposal

Respect the rules on clothing and protective measures. The treatment and / or disposal shall be made in accordance with local law. Remove to an authorized waste collection point.



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13.2. Container disposal

Empty containers must be disposed of by an authorised dealer.

"Final holders of residues from industrial and commercial containers, must keep them in the conditions established in article 12 of the Spanish Containers and Residues from Containers Law 11/1997."

14. TRANSPORT INFORMATION

Special considerations for transport

Use unbreakable containers, making sure that they are well secured and labelled according to regulations.

Miscibility with water: Immiscible.

Classification for the transport by rail/road RID/ADR: N.A.

Classification for transport by sea, code-IMDG: N.A.

Classification for transport by air IACO/IATA: N.A.

14.1 United Nations Number

See the corresponding reference for the United Nations number for the respective legislations at the table above.

14.2 United Nations official designation of transport

See the corresponding reference for "United Nations official designation of transport" for the respective legislations at the table above.

14.3 Type(s) of danger for the transport

See the corresponding reference for "Type(s) of danger for the transport" for the respective legislations at the table above.

14.4 Packaging group

See the corresponding reference for "Packaging group" for the respective legislations at the table above.

14.5 Hazard for the environment

See the corresponding reference for "Hazard for the environment" for the respective legislations at the table above.

14.6 Special measures for the users

See the corresponding reference for "Special measures for the users" for the respective legislations at the table above.

14.7 Bulk transport according to annex II of MARPOL Convention 73/78 of IBC Code

See the corresponding reference for the respective legislations at the table above.

15. NORMATIVE INFORMATION

15.1. Applied regulations

This safety data sheet has been developed in accordance with ANNEX III of Regulation (EC) No 1907/2006, as amended by Article 59 (5) of Regulation (EC) No 1272/2008, Regulation (EU) No 453 / 2010 laying down the requirements for the preparation of the safety data sheets used to provide information on chemical substances and mixtures in the European Union and as amended by Commission Regulation (EU) 2015/830 of 28 May 2015 Amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

15.2 Chemical safety evaluation

.Instructions about the product use can be found at the points 7 and 8 of the MSDS.



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16. FURTHER INFORMATION

Danger substances mentioned on section 3 but not corresponded with product danger classification.

16.1. Classification according with the Reglamento (CE) 1272/2008 [UE-GHS/CLP]

H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

16.2. Recommended use

Use only by qualified personnel. Read the label carefully before use.
Follow instructions of use in order to prevent risks for people and the environment.

16.3. Additional information

The information published here is based on the knowledge and good work of the safety data sheets of the raw materials manufacturers. Therefore, it cannot be interpreted as a guarantee for any specific property of the product. As consequence, it is the users exclusive responsibility to decide whether the information provided is appropriate or useful.

16.4. This actualised revision version of the Material safety data sheet replace previous versions.