

# SAFETY DATA SHEET according to Regulation 1907/2006



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Product name: **RATIMOR BRODIFACOUM WAX BLOCKS**

Creation date: **1.2.2018** · Version: 1

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Product name

**RATIMOR BRODIFACOUM WAX BLOCKS**



[chemius.net/hTc13](http://chemius.net/hTc13)

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Rodenticide for the extermination of mice and rats  
Type of biocidal product: PT14

Uses advised against

To use only for the purposes stated in this Safety Data Sheet or on the product label. Any other use is prohibited. Do not use rodenticide unprotected in places where other animals or people move or stay.

### 1.3. Details of the supplier of the safety data sheet

Supplier

UNICHEM D.O.O.  
Address: Sinja Gorica 2, 1360 Vrhnika, Slovenia  
Tel.: +386 1 755 81 50  
Fax: +386 1 755 81 55  
[www.unicchem.si](http://www.unicchem.si)  
e-mail: [unicchem@unicchem.si](mailto:unicchem@unicchem.si)

### 1.4. Emergency telephone number

Emergency

112

Supplier

+386 1 755 81 50

## SECTION 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

STOT RE 2; H373 May cause damage to organs (blood) through prolonged or repeated exposure.

### 2.2 Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]



Signal word: **Warning**

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

P260 Do not breathe dust.

P314 Get medical advice if you feel unwell.

P501 Dispose of container and unused bait as hazardous waste in accordance with national regulations.

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## 2.2.2. Contains:

brodifacoum (CAS: 56073-10-0, EC: 259-980-5, Index: 607-172-00-1)

## 2.2.3. Special provisions

EUH208: Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

## 2.3. Other hazards

No information.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

For mixtures see 3.2.

### 3.2. Mixtures

Name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	REACH Registration No.
brodifacoum	56073-10-0 259-980-5 607-172-00-1	0,0029	Acute Tox. 1; H300 Acute Tox. 1; H310 Acute Tox. 1; H330 Repr. 1A; H360D STOT RE 1; H372 Aquatic Acute 1; H400 [M=10] Aquatic Chronic 1; H410 [M=10]	-
Denatonium benzoate	3734-33-6 223-095-2 -	0,001	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Acute Tox. 4; H332 STOT SE 3; H335 Aquatic Chronic 3; H412	-

## SECTION 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General notes

Remove affected person from the contaminated area to fresh air or well-ventilated area, providing her basic life functions and protect it from the cold or heat. Never give anything by mouth to an unconscious person. Place patient stably in side position for transportation.

#### Following inhalation

Remove patient to fresh air-move out of dangerous area. If symptoms persist seek medical attention.

#### Following skin contact

Take off all contaminated clothing. Wash affected skin areas thoroughly with plenty of water and soap! If feeling unwell seek medical help.

#### Following eye contact

Immediately flush eyes with plenty of water while keeping eyelids open (at least 15 minutes). Check for and remove any contact lenses. If irritation persist, seek professional medical attention.

#### Following ingestion

Do not induce vomiting. Rinse mouth with water. In case of doubt or if feeling unwell seek medical help. Show the physician the Safety Data Sheet or label.

## 4.2. Most important symptoms and effects, both acute and delayed

### Inhalation

Breathing dust can irritate the respiratory tract.  
Coughing, sneezing, nasal discharge, labored breathing.

### Skin contact

Powder can cause localised skin irritation in folds of the skin or under tight clothing.  
Contact with skin may cause irritation (redness, itching).

### Eye contact

Dust irritates the eyes (by mechanical means).  
Contact with eyes can cause irritation (redness, tearing, pain).

### Ingestion

The product contains an anticoagulant which may produce bleeding.  
Symptoms may be delayed for several days after exposure.  
In case of poisoning bleeding disorders and increased bleeding tendency may occur.  
In severe poisoning a strong internal bleeding can cause circulatory collapse and consequent death.

## 4.3. Indication of any immediate medical attention and special treatment needed

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). **ADVICE FOR DOCTORS:** Brodifacoum is an indirect anti-coagulant. Phytomenadione, Vitamin K1, is antidotal. Determine prothrombin time not less than 18 hours after consumption. If elevated, administer Vitamin K1 until prothrombin time normalises. Continue determination of prothrombin time for two weeks after withdrawal of antidote and resume treatment if elevation occurs in that time.

## SECTION 5. FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

#### Unsuitable extinguishing media

Full water jet.

### 5.2. Special hazards arising from the substance or mixture

#### Hazardous combustion products

In case of heating harmful vapours/gases can be generated.

### 5.3. Advice for firefighters

#### Protective actions

In case of fire or heating do not breathe fumes/vapours. Cool containers at risk with water spray jet. If possible remove containers from endangered area.

#### Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective clothing for fire-fighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137) .

#### Additional information

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

##### **Protective equipment**

Use personal protective equipment (Section 8). Refer to protective measures listed in sections 7 and 8.

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## Emergency procedures

Ensure adequate ventilation.

### 6.1.2. For emergency responders

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## 6.2. Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental entry into water or ground occurs, inform responsible authorities.

## 6.3. Methods and material for containment and cleaning up

### 6.3.1. For containment

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### 6.3.2. For cleaning up

Collect in a suitable container and dispose according to regulations.

### 6.3.3. Other information

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## 6.4. Reference to other sections

See also sections 8 and 13.

## SECTION 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### 7.1.1. Protective measures

##### **Measures to prevent fire**

Ensure adequate ventilation.

##### **Measures to prevent aerosol and dust generation**

Avoid formation of dust.

##### **Measures to protect the environment**

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#### 7.1.2. Advice on general occupational hygiene

Refer to instructions on label and regulations for safety and health at work. Use personal protective equipment. Use good personal hygiene practices-wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe dust.

### 7.2. Conditions for safe storage, including any incompatibilities

#### 7.2.1. Technical measures and storage conditions

Store in original, tightly closed container in a dry place. Store at room temperature. Keep container in a well ventilated place. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Keep away from animals. Protect from open fire, heat and direct sunlight. Keep in locked place.

#### 7.2.2. Packaging materials

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#### 7.2.3. Requirements for storage rooms and vessels

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#### 7.2.4. Storage class

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#### 7.2.5. Further information on storage conditions

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unicchem@unicchem.si, [www.unicchem.si](http://www.unicchem.si)Product name: **RATIMOR BRODIFACOUM WAX BLOCKS**Creation date: **1.2.2018** · Version: **1****7.3. Specific end use(s)****Recommendations**

The product is intended for use as a rodenticide (biocidal agent). Before using this product read the instructions for use.

**Industrial sector specific solutions**

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters****8.1.1. Occupational Exposure limit values**

No information.

**8.1.2. Information on monitoring procedures**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

**8.1.3. DNEL values**

No information.

**8.1.4. PNEC values**

No information.

**8.2. Exposure controls****8.2.1. Appropriate engineering control****Substance/mixture related measures to prevent exposure during identified uses**

Use good personal hygiene practices-wash hands at breaks and when done working with material. Avoid contact with eyes and skin. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

**Technical measures to prevent exposure**

Provide good ventilation and local exhaust in the area with increased concentration. Keep away from food, drink and animal feedingstuffs.

**8.2.2. Personal protective equipment****Eye and face protection**

Safety glasses with side protection (EN 166).

**Hand protection**

Protective gloves (EN 374).

**Appropriate materials**

Material	Thickness	Penetration Time	Remark
PVC			
Butyl rubber			

**Skin protection**

Cotton protective clothing (EN ISO 13688) and shoes that cover the entire foot (EN ISO 20345).

**Respiratory protection**

Not needed under normal use and adequate ventilation. In case of dusting use respiratory protection. Use a half-mask (EN 140 or EN 149) with a particle filter P (EN 143).

**Thermal hazards**

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**8.2.3. Environmental exposure controls**

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

- <b>Physical state:</b>	solid
- <b>Colour:</b>	blue
- <b>Odour:</b>	mild, characteristic

### Important health, safety and environmental information

- <b>pH</b>	No information.
- <b>Melting point/Freezing point</b>	45 – 65 °C
- <b>Initial boiling point/boiling range</b>	No information.
- <b>Flash point</b>	not highly flammable (EEC Method A.10)
- <b>Evaporation rate</b>	No information.
- <b>Flammability (solid, gas)</b>	No information.
- <b>Explosion limits (vol%)</b>	No information.
- <b>Vapour pressure</b>	No information.
- <b>Vapour density</b>	No information.
- <b>Density</b>	No information.
- <b>Solubility</b>	<b>Water:</b> Insoluble
- <b>Partition coefficient</b>	No information.
- <b>Auto-ignition temperature</b>	No information.
- <b>Decomposition temperature</b>	No information.
- <b>Viscosity</b>	No information.
- <b>Explosive properties</b>	Product is not explosive. Product is not self igniting.
- <b>Oxidising properties</b>	No oxidizing properties.

### 9.2. Other information

- <b>Remarks:</b>	
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## SECTION 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

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### 10.2. Chemical stability

Product is stable under normal conditions according to handling and storage.

### 10.3. Possibility of hazardous reactions

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### 10.4. Conditions to avoid

Avoid high temperatures.

### 10.5. Incompatible materials

Strong oxidizing agents.

**10.6. Hazardous decomposition products**

Under normal use conditions no hazardous decomposition products expected. In case of fire/explosion vapours dangerous for health are spread.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects**

11.1.1. Acute toxicity

**For components**

Name	exp. route	Type	species	Time	value	Method	Remark
brodifacoum (56073-10-0)	dermal	LC <sub>50</sub>	rat		7,48 mg/kg		
brodifacoum (56073-10-0)	oral	LD <sub>50</sub>	rat		< 0,27 mg/kg		

11.1.2. Skin corrosion/irritation, serious eye damage/irritation

No information.

11.1.3. Respiratory or skin sensitisation

No information.

11.1.4. Carcinogenicity, Mutagenicity, Reproductive toxicity

**Carcinogenicity**

No information.

**(Germ cell) mutagenicity**

No information.

**Reproductive toxicity**

No information.

**Summary of evaluation of the CMR properties**

No information.

11.1.5. STOT - single and repeated exposure

**Additional information**

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

11.1.6. Aspiration hazard

No information.

**SECTION 12. ECOLOGICAL INFORMATION**

**12.1. Toxicity**

12.1.1. Acute (short-term) toxicity

**For components**

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
brodifacoum (56073-10-0)	EC <sub>50</sub>	0,04 mg/L	72 h	algae			
	EC <sub>50</sub>	0,25 mg/L	48 h	crustaceans	<i>Daphnia magna</i>		
	LC <sub>50</sub>	0,042 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>		

12.1.2. Chronic (long-term) toxicity

No information.

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## 12.2. Persistence and degradability

### 12.2.1. Abiotic degradation, physical- and photo-chemical elimination

No information.

### 12.2.2. Biodegradation

No information.

## 12.3. Bioaccumulative potential

### 12.3.1. Partition coefficient

#### **For components**

Substance (CAS Nr.)	Media	value	Temperature	pH	Concentration	Method
brodifacoum (56073-10-0)	Octanol-water (log Pow)	4,9	20 °C	7		

### 12.3.2. Bioconcentration factor (BCF)

No information.

## 12.4. Mobility in soil

### 12.4.1. Known or predicted distribution to environmental compartments

No information.

### 12.4.2. Surface tension

No information.

### 12.4.3. Adsorption/Desorption

No information.

## 12.5. Results of PBT and vPvB assessment

No evaluation.

## 12.6. Other adverse effects

No information.

## 12.7. Additional information

#### **For product**

No ecotoxicological data available.

Avoid release to the environment.

#### **For components**

##### **Substance: brodifacoum**

The substance is not readily biodegradable.

High potential for bioaccumulation.

## SECTION 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### 13.1.1. Product / Packaging disposal

##### **Waste chemical**

Disposal must be made according to official regulations: to leave it to authorized collector/remover/transformer of hazardous waste. It is not allowed to empty into ground or the aquatic environment.

##### **Packaging**

Completely emptied containers leave to approved waste disposal authorities in charge.

#### 13.1.2. Waste treatment-relevant information

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## 13.1.3. Sewage disposal-relevant information

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## 13.1.4. Other disposal recommendations

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## SECTION 14. TRANSPORT INFORMATION

### 14.1. UN number

not applicable

### 14.2. UN proper shipping name

ADR, RID, IMDG, ADN, IATA: Not dangerous according to transport regulations.

### 14.3. Transport hazard class(es)

not applicable

### 14.4. Packing group

not applicable

### 14.5. Environmental hazards

NO

### 14.6. Special precautions for user

not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

## SECTION 15. REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2015/830)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

#### 15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

### 15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16. OTHER INFORMATION

### Indication of changes

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### Key literature references and sources for data

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## List of relevant H phrases

- H300 Fatal if swallowed.
- H302 Harmful if swallowed.
- H310 Fatal in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H330 Fatal if inhaled.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H360D May damage the unborn child.
- 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.
- H412 Harmful to aquatic life with long lasting effects.



- Provided correct labelling of the product
- Compliance with the local legislation
- Provided correct classification of the product
- Provided adequate transport data

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The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.