SAFETY DATA SHEET

Made in accordance with Regulations 1907/2006/EC and 1272/2008/EC and 2015/830/EU

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier: **RATEX paraffinos rágcsálóirtó blokk**
RATEX paraffin rodenticide block

1.2. Relevalnt identified uses of the substance or mixture and uses advised against:
biocidal product, product-type 14th; II. distribution category rodenticide block
For professional and trained professional use

Contraindicated use: if it's different from the above

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

METATOX Peszticid Gyártó és Forgalmazó Kft.
H-5520 Szeghalom, Kossuth u. 8.
Telephone: +(36) 66 371 168; +36 30 5757 140

Contact details of the person responsible for the safety data sheet: info@metatox.hu

1.4. Emergency telephone number:

Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ):
In working hours:+36 1 476-6464; non-stop: +36 80 20 11 99

2. Hazards indentification

2.1. Classification of the substance or mixture: The product is a mixture. According to the manufacturer, and to the relevant EU regulations, and to the Regulation (EC) No. 1272/2008 (CLP) and its amendments, **is a hazardous mixture.**

Hazard category: Specific target organ toxicity – repeated exposure, STOT RE 1

Hazard statement: H373 May cause demage to organ through prolonged or repeated exposure.
H360D May damage the unborn child.
EUH208 Contains 1,2-Benzizotiazol-3(2H). May produce an allergic reaction.

Physical-, chemical hazards, Health hazards and Environment hazards:
Not Classified

2.2. Label elements: **Pictogram:** GHS08 **Signal word:** DANGER

DANGER 	**Hazard statements:** H373 May cause demage to organ through prolonged or repeated exposure. H360D May damage the unborn child. EUH208 Contains 1,2-Benzizotiazol-3(2H). May produce an allergic reaction. **Precautionary statements:** P102 Keep out of reach of children. P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P264 Wash hands thoroughly after handling. P270 Do no eat, drink or smoke when using this product. P280 Wear protective gloves. P308 + P313 IF exposed or concerned: Get medical advice/attention. P314 Get medical advice/attention if you feel unwell. P405 Store locked up. P501 Dispose of contents/container to the local regulations.

Contains: **Biocidal active substance content: 0,005%** bromadiolone

2.3. Other hazards:

The active ingredient of the product is anticoagulant, which may be cause disorders, bleeding or internal bleeding when ingestion of high blood levels of anticoagulants. The rodenticide agent contains a bitter substance (denatonium benzoate), which helps to prevent accidental human consumption of the product.

In order to prevent public health hazards and secondary poisoning, rodents destroyed during treatment should be removed.

The carcasses of dead rodents must be collected in protective gloves by means of a reversed plastic bag and then locked in an additional bag and sealed.

The carcasses in the double bag must be placed in a sealed waste receptacle; further treatment is treated as communal waste, see also section 13. Professional users on the disposal of carcasses of dead rodents as hazardous waste by Decree 98/2001. (VI. 15.) Korm. The packaging / labeling of the biocidal product shall also comply with the requirements of Regulation (EU) No 528/2012.

3. Composition/information on ingredients

3.1. Chemical character: mixture

Dangerous component	Concentration	Hazard class, category, H-sentences
Bromadiolone* CAS nr.: 28772-56-7 EC nr.: 249-205-9 Index nr.: 607-716-008	**0,005%**	Acute Tox. 1 (oral, dermal, inhal.), H300, H310, H330; Repr. 1B, H360D, if the concentration ≥ 0,003%; STOT RE 1, H372 (blood), if the concentration ≥ 0,005%; STOT RE 2, H373 (blood), if 0,0005% ≤ concentration<0,005%; Aquatic Acute 1, H400, M $_{(acute)}$: 1; Aquatic Chronic 1, H410, M $_{(chronic)}$: 1
Denatonium-benzoate** CAS nr.: 3734-33-6 EC nr.: 223-095-2	0,001%	Acute Tox. 4 (oral, inhal.), H302, H332; Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Chronic 3, H412

* IUPAC name: 3-[(1RS,3RS,1RS,3SR)-3-(4′-bromobifenil-4-il)-3-hidroxi-1-fenilpropil]-4-hidroxikumarin

** There is no harmonized EU classification

The manufacturer does not indicate the presence of other hazardous ingredients.
Other undetermined components are not considered to be hazardous substances according to the legislation in force or their concentration in the formulation does not reach the extent to which their presence should be considered in the hazard classification.

The above hazard classes, categories, H-phrases refer to the pure component, the hazard classification according to the preparation is given in Section 2.
For full text of H-Statements and Abbreviations see Section 16.

4. First aid measures

4.1. Description of first aid measures
General information: The professionalism and speed of first aid can greatly reduce the occurrence and severity of the symptoms. In a person with unconscious or spastic fluid, drink or drink vomiting!
Inhalation: Bring the injured person to fresh air, place it in rest. In the event of symptoms or poisoning, seek medical attention.
Skin contact: Wash affected area with soap and plenty of water. If irritation occurs, seek medical attention.
Eye contact: Immediately flush eyes with plenty of water for at least 10 minutes, while the eyelids are opened and the eyeball is moved. If there is a contact lens, remove it and resume rinsing. In the event of a complaint or symptom persistence consult a specialist.
Ingestion: If swallowed, seek medical advice IMMEDIATELY and show the package, label or safety data sheet of the product. Vomiting should only be made to the physician's express instructions. Rinse mouth with water. Do not eat or drink, relax in a warm place and consult a physician.
4.2. Most important symptoms and effects, both acute and delayed: The active substance is anticouagulant, bromadiolone. After ingestion of the product, blood clotting may be reduced and internal bleeding may occur. It may take up to several days between poisoning and symptoms.
4.3. Indication of any immediate medical attention and special treatment needed: Give Vitamin K1 to the patient, if you notice the characteristic symptoms of bromadiolone poisoning (nasal bleeding, gum bleeding, haematuria (blood in urine), longer coagulation time, hematomas of bigger extent or of greater

frequencies, suddenly appearing, and unusual visceral pain). If bleeding is not noticeable, the prothrombin time (INR) needs to be measured within 48-72 hours following exposure. If the prothrombin time is greater than 4, the patient needs to get Vitamin K1 intravenously. Repeated administration of vitamin K1 might be needed.

Note to the physician: The active substance of the product is anticoagulant coumarin derivative, **antidote: Vitamin K_1.**
Prothrombin activity should be monitored for several days, especially when larger quantities of rodenticide have been into the body.

5. Firefighting measures

The product is not flammable, not explosive, but combustible. There is no abnormal risk. The substance is not highly flammable, non-oxidising, or explosive and will not release large amounts of gas when exposed to heat.

5.1. Extinguishing media: usual extinguishing agents: carbon dioxide, extinguishing powder, water spray, foam. It should be established on the basis of burning in the environment.

Unsuitable extinguishing media: strong water jet.

5.2. Special hazards arising from the substance or mixture: high temperatures can cause toxic and irritant gases, vapors, eg carbon monoxide, carbon dioxide and oxides of nitrogen during combustion and decomposition.

5.3. Advice for firefighters: full protective equipment and breathing apparatus independent of the environment if there is a risk of exposure to vapors or combustion products. Dispose of combustion products and fire-extinguishing water in accordance with regulations. Containers at risk from fire should be cooled with water spray.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Mechanically collect the dispersed product, wear chemical resistant gloves and avoid exposure to the product! In the case of large amount of remediation, it is recommenden to use dust-mask.
For non-emergency persons: leave the danger zone and notify the authorities.
Emergency services: Personal protective equipment is required. Remediation can only be performed by trained personnel.

6.2. Environmental precautions
The spillaged product should not enter drains, water bodies or soil. Waste disposal and disposal should be in accordance with local regulations. If the product reaches the sewer or water bodies, the competent authorities must be informed.

6.3. Methods and material for containment and cleaning up
The scattered product need to mechanically sweep, sweeping free of dust, and place in a suitable container and dispose of it. Disposal in accordance with local regulations. Wash contaminated area with water or water containing detergent. Avoid to get the cleaning-water into the sewer.

6.4. Reference to other sections: see Section 8. and 13.

7. Handling and storage

The product can only be used for rodent control, as stated in the instructions for use. Avoid exposure to the product: skin contact, eye contact and swallowing. When using this product, wear suitable protective gloves which are EU quality certified. Do not eat, drink or smoke while using.

After treatment, wash hands with soap and plenty of water.

On the rodenticide bait stations - In accordance with Annex 8 of the No.(VII.7.) ESZCSM-FVM-KvVM joint decree - shall be indicate the name, active substance, antidote of the rodenticide, as well as the name, address and telephone number of the user.

7.1. Precautions for safe handling: Wear protective gloves during the treatment. Remove contaminated clothing and protective equipment when entering a place to eat or bath.

Always read the product label and operating instructions before use.

It is obligatory to follow normal hygiene procedures! Avoid contact with eyes and skin. Dust formation is unlikely because the product is a wax block. Avoid inhalation of dust during possible dust formation. Do not eat, drink or smoke when using this product. Wash hands and face before eating, drinking or smoking.

Technical measures: No special instructions.

Advice on protection against fire and explosion: Keep away from sources of ignition! No smoking! Keep away from heat, as it is combustible. The product is not explosive. Keep away from oxidizing.

7.2. Conditions for safe storage, including any incompatibilities

Store in a sealed original container in a dry, cool, well-ventilated place, protected from direct sunlight, moisture, food, drink, feed and incompatible materials.

Can be used for 2 years from the date of manufacture.

Children, unauthorized persons, birds, livestock, pets do not have access.

The product is toxic to mammals and birds. Dogs, cats, pigs, and any other predator and / or carnivorous animal may be poisoned if the rat or mouse is killed or weakened by the rodenticide.

Do not use the product to kill non-target animals.

7.3. Specific end use(s): biocidal product, rodenticide, only for professional and trained professional users. Users should always read the user's manual and follow the instructions for safe handling and use. The rodent block can be used indoors and outdoors, around buildings and sewers. Users should always read the operating instructions and follow the instructions for safe handling and use.

8. Exposure controls and personal protection

8.1. Control parameters

Occupational exposure limits: not available for the product.

Periodic medical examination is recommended for professional users, as repeated undesirable exposure to the formulation may reduce blood coagulability.

8.2. Exposure controls

Based on the 25/2000. (IX.30.) EüM-SZCSM regulation 7.§ (6) Article, in the case of dangerous substances which are not controlled by the limit value, the employer shall reduce the exposure to the lowest level that can be expected in accordance with scientific and technical standards, at which level the dangerous substance has no harmful.

Technical measure:

- Protective equipment, bathing facilities

Hygiene measures:

- Do not eat, drink or smoke during treatment.
- After treatment, wash thoroughly with warm, soapy water.

Personal protective equipment:

- **Respiratory protection:** not required**.**
- **Hand protection:** During treatment use a chemical resistant gloves conformint to EN 374. Replace protective gloves if damaged. When selecting a glove material, look at not only the substance but also the quality indicators as it changes from manufacturer to manufacturer. Selection should take into account breakthrough time, degradation parameters, and workplace factors such as duration of use, frequency, other chemicals with which there is a risk of contact, physical requirements (cutting / puncture protection).
- **Eye protection:** not required.
- **Skin protection:** workwear.
- **Heat hazard:** not known

Environmental exposure controls: place the product in a place where pets, livestock and birds do not have access. The domestic animals, and all other predatory- and scavenger animals may be get poisoning, if consuming from the rats or mice what they destroyed by rodenticides.

Do not dispose of this product and its container into sewers, water bodies.

The above applies to professionally performed activities and intended use conditions, under normal circumstances. If work is done under different circumstances or exceptional circumstances, it is recommended that you decide on additional tasks and personal protective equipment by involving an expert.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Appearance:	5 – 100 grams paraffin rodenticide blocks
Color:	red
Taste:	bitter (contains denatonium benzoate)
Odor:	neutral - alcoholic
Odot threshold:	no data available
pH-value at 20°C:	no data available
Bulk weight:	no data available
Melting/boiling point:	not relevant
Decomposition temperature:	no data available
Flash point:	not relevant
Auto-ignition temperature:	no data available
Flammability (gas, solid):	no data available
Vapor pressure:	no data available
Evaporttion rate:	not relevant
Solubility in water:	suspended
Partition coefficient:	no data available
Viscosity:	not relevant
Explosive properties:	not characteristic
Explosion limits:	not relevant
Oxidizing properties:	not oxidizing

9.2. Other information: no information available

10. Stbility and reactivity

10.1. Reactivity: not typical.

10.2. Chemical stability: under normal conditions (normal temperature and prssure conditions and the storage conditions specified in Section 7) are stable.

10.3. Possibility of hazardous reactions: not known.

10.4. Conditions to avoid: high temperature, heat, heating, frost, moisture.

10.5. Incompatible materials: strong acids, alkalis, oxidants.

10.6. Hazardous decomposition products: not under normal conditions. In the fire toxic, irritang gases and vapors are formed, see Section 5.

11. Toxicological information

11.1. Information on toxicological effects: the active substance is very toxic to fish, birds and mammals. The lethal dose depends on many factors and is difficult to estimate for a given species. Non-target organisms may only be at risk in exceptional cases. When used properly, the risk of primary poisoning of other animals can be minimized.

Acute toxicity: based on estimated ATE values, the product should not be classified as acute toxicity (oral, dermal, inhalative).

Acute toxicity values of the active substances:

Denatonium Benzoate (CAS:3734-33-6):

LD_{50} (oral, rat):	584 mg/kg
LC_{50} (rat) 4 Hr:	>8,7 mg/l

Bromadiolone (CAS: 28772-56-7):

LD_{50} (acute, oral, rat):	1,125 mg/ttkg
LD_{50} (acute, oral, mouse):	1,75 mg/ttkg
LD_{50} (acute, oral, dog):	>10 mg/ttkg

LD_{50} values of the product:

oral	>2000 mg/ttkg
dermal	>2000 mg/ttkg

Skin corrosion/skin irritation: the composition of the product and the available data are not corrosive and do not irritate the skin.
Serious eye damage / eye irritation: does not cause serious eye damage and does not irritate the eyes due to the composition of the product and the available data.
Respiratory-, and skin sensitization: the product is a wax block, no sensitizing effect is expected, does not meet the criteria for classification but contains 1,2-benzisothiazol-3 (2H) which may cause allergic reactions.

Germ cell mutagenicity: based on available information, the product is not need to classified as a mutagenic mixture.

Carcinogenicity: Based on available information, the product should not be classified as carcinogenic.

IARC (International Agency for Research on Cancer) Carcinogenicity: None of the ingredients listed.

Reproductive toxicity - fertility: Based on the specific concentration limit for bromadiolone, the classification criteria are not met.

Reproductive toxicity - ontogeny: Based on the specific concentration limit for bromadiolone, the product is a reprotoxic mixture (Repr. 1B); may harm the unborn child.

STOT SE: the product is not classified as hazardous to STOT SE, the criteria for classification in this hazard class are not met.

STOT RE: the criterion for this hazard classification is met on the basis of the specific concentration limit for bromadiolone as the concentration of bromadiolone in the product is 0.005%.
The product is classified as a STOT RE 1 hazard class.

Aspiration toxicity: The product is not need to classified as causing to asphyxiation toxicity. Solid material). Avoid contact with the substance during pregnancy / lactation.

11.2. Expected effects of exposure to the product:
A product is a second generation anticoagulant.
Products have such a low levels of active ingredient content that the toxic dose for a person with normal body mass is several kilograms.
Consuming is very unlikely due to the biting substance.
Second-generation anticoagulant poisoning can be easily treated by administering Vitamin K1 and can be traced well by measuring blood coagulation factor.
If swallowed large amounts, blood clotting may occur, blood coagulation ability decreases, bleeding or internal bleeding may develop.
Repeated adverse reaction with the formulation may reduce blood coagulation ability, see also section 4.2. and 4.3. section.

12. Ecological information

12.1. Toxicity: bromadiolone is very toxic to aquatic organisms and causes long-lasting damage, but the product itself is not to be classified as a mixture hazardous to the aquatic environment since bromadiolone concentrations in the product are only **0.005%** and bromadiolone M factors: 1.
12.2. Persistence and degradability: bromadiolone is not readily biodegradable and hydrolytically stable.
12.3. Bioaccumulative potential: the bioaccumulation factor of bromadiolone, its partition coefficient is high.
12.4. Mobility in soil: the bromadiolone is not mobile, or weakly mobile based on its K_{oc} value.
12.5. Result of PBT and vPvB assessment: bromadiolone is a potential PBT (persistent, bi-accumulative and toxic) or vPvB (very persistent and very bioaccumulative).
It not has been experimentally demonstrated that bromadiolone is a bioaccumulative or very bioaccumulative compound[1].

12.6. Other adverse effects: avoid residues and packaging of the product to the soil, to water bodies and sewers. The primary and secondary exposure of non-target organisms and the environment should be minimized by considering and taking all available and appropriate risk mitigation measures.

13. Disposal considerations

13.1. Waste treatment methods:
To treat the residues and waste of the preparation, see 225/2015. (VIII.7.) Government Decree and its handling of packaging waste is governed by Government Decree 442/2012 (XII.29.).

After the treatment, remove the feeding places and collect the residual product as well as the rodent traps and bait stations. Provision should be made to clean up any spilled product.
Waste loose product that can not be used for its original purpose should be treated as hazardous waste and placed in a hazardous waste disposal site, eg. waste site.

Waste product classification is 72/2013. (VIII.27.) VM.

Classification of waste product (Waste key / EWC code):

07 04 organic plant protection products (excluding 02 01 08 and 02 01 09), wood preservatives (excluding 03 02) and waste from the manufacture, presentation, distribution and use of biocides
07 04 13* solid waste containing dangerous substances

14. Transport information

This product is **not a hazardous product** under the terms of the International Carriage of Dangerous Goods by **ADR / RID, IMDG and IATA**.
The product should be transported in its original sealed packaging, separate from other products, protected from direct sunlight and heat.

15. Regualtory information

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

The active substance of the product is bromadiolon, an active substance approved under Directive 2009/92 / EC to the Product Type of 14.

The product does not contain any contain which is listed by REACH XVII. .

The product does not contain any SVHC material and does not contain any candidate list material by SVHC.

The product does not contain any listed material by REACH XIV.

Relevant Community legislation

Biocide Regualtions: 528/2012/EU and its amendments, and 354/2013/EU, 414/2013/EU, 564/2013/EU, 613/2013/EU, 736/2013, 837/2013/EU, 88/2014/EU és 334/2014/EU, 1062/2014/EU
REACH Regulation: 1907/2006/EC and its amendments
CLP Regulation (1272/2008/EC) and its amendments: 1. ATP: 790/2009/EC regulation; 2. ATP: 286/2011/EC regulation; 3. ATP: 618/2012/EU regulation; 4. ATP: 487/2013/EU regulation; 5. ATP: 944/2013/EU regulation; 6. ATP: 605/2014/EU regulation; 7. ATP: 2015/1221/EU regulation; 8. ATP: 2016/918/EU regulation; 9. ATP: 2016/1179/EU regulation
Directive 98/24 / EC on the protection of the health and safety of workers from the risks related to chemical agents at work;
Occupational Exposure Limits: 91/322/ECregulation and its amendments; 2000/39/ECdirective and its amendments;Directive 94/33/EC on the protection of young people at work.

Relevant national legislation

Biocidal: 38/2003. (VII.7.) ESzCsM-FVM-KvVM reguation on the conditions for the production and marketing of biocidal products; 316/2013. (VIII.28.) Government Decree on Certain Rules for the Authorization and Marketing of Biocidal Products;
Labour safety: az 1993. évi XCIII. Act on Occupational Safety; 25/2000. (IX.30.) EüM-SzCsM Decree on the Chemical Safety of Workplaces; 33/1998. (VI.24.) NM regulation on the medical examination and opinion on the professional, personal hygiene and fitness for work; 3/2002. (II.8.) SzCsM-EüM regulation on the minimum level of work safety requirements for workplaces;
Chemical safety: 2000. évi XXV. act on Chemical Safety and its amendments, detailed rules for certain procedures and activities related to dangerous substances and dangerous preparations, 44/2000. (XII.27.) EüM regulation and its amendments;
Environmental Protection:1995. évi LIII. Act on the General Rules for the Protection of the Environment; 2012. évi CLXXXV. law on waste; 225/2015. (VIII.7.) Government Decree on detailed rules for certain activities related to hazardous waste; 72/2013. (VIII.27.) VM Regulation on the Waste List;
Fire protection: 1996. évi XXXI. law on fire protection, technical rescue and fire brigade; az 54/2014. (XII.5.) BM regulation on the National Fire Protection Code.

15.2.**Chemical safety assessment**: no chemical safety assessment has been carried out.

16. Other information

The safety data sheet is not intended to guarantee certain characteristics of the product, does not replace the details product specification.

The information, data and recommendations contained in the Safety Data Sheet are based on our best knowledge, which are known and accurate and at the time of issue and are designed to help the safe use of the product.

Store, treat and use the product only as described in the instructions for use.

It is the responsibility of the user to take all necessary precautions when using the product.

This data sheet does not imply any legal obligation or liability for misuse, or improper use, as the conditions of use (handling, application, storage, disposal, etc.) fall outside our control.

The informations, the datas and recommendations contained in this Safety Data Sheet are based on the best of our knowledge and understanding and are known to be accurate at the time of publication and are intended to assist in the safe use of this product.

The product may only be stored, handled and used in accordance with the instructions in this manual. It is the responsibility of the user to take all necessary precautions when using the product.

This datasheet does not represent any legal obligation or liability for consequences arising from improper use or misuse as the conditions of use (handling, application, storage, disposal, etc.) are beyond our control.

Full text of all H-phrases and abbreviations in section 3:
Abbreviations of Hazard Classes: (abbreviated numbers mean the class within the class, larger numbers represent a lower risk):
Acute Tox.: acute toxicity; oral: orally;, dermal: through the skin; inhal.: inhalation; Repr.: reproductive toxicity; STOT RE: target organ toxicity, repeated exposure; Skin Irrit.: skin irritation; Eye Dam.: serious eye damage;. Aquatic Acute: dangerous for the aquatic environment, acute danger;Aquatic Chronic: it poses a chronic danger to the aquatic environment.
H300 Fatal if swallowed.
H302 Harmful if swallowed.
H310 Fatal in contact with skin.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H360D May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure(blood).
H373 May cause damage to organs through prolonged or repeated exposure (blood).
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.

Sheet History: This data sheet is based on the manufacturer's specifications and supersedes the previous version.
The purpose of the amendment is to comply with Regulations 2016/1179 / EU, 2015/830 / EU and Regulation (EC) No 1272/2008.
References and sources used: the previous version of the safety data sheet, the summary report on the product and the safety data sheet issued by the active ingredient manufacturer.

*The product including to the II. distribution category; can onyl be sold exclusively to the professionals and trained professionals.

Pay attention to safety when using biocides!
Always read the label and instructions before use!

To aviod risks to human health and to the environment, must be observed the instuctions for use!
Carefully read the information on the label and the instructions for safe use before each use!
The safety data sheets of the products are publicly available and can be downloaded free of charge from our website!