

 <b>UNICHEM d.o.o.</b> Sinja Gorica 2, 1360 Vrhnika Tel: 01/7558-150 Fax: 01/7558-155	<h1>SAFETY DATA SHEET</h1>	Revision: 3
		Date of issue: <b>20.02.2008</b>
	<b>RATIMOR Liquid bait</b>	Printed: 24.04.2009

## 1. IDENTIFICATION OF THE PREPARATION AND THE COMPANY

- 1.1 Trade name: **RATIMOR Liquid bait**
- 1.2 Use of the preparation: rodenticide, anticoagulant bait (RB)
- 1.3 Supplier: **UNICHEM d.o.o., Sinja Gorica 2, Vrhnika**  
tel.: +386 (01) 75 58 150 , fax.: +386 (01) 75 58 155

## 2. HAZARDS IDENTIFICATION

- 2.1 Safety hazard: not explosive, not oxidising agent
- 2.2 Hazard to health: Harmful in contact with skin and if swallowed.
- 2.3 Hazard to environment: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Wild mammals and birds may be at greater risk if the product is not used in accordance with its label.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

	SYMBOL	R-Phrases	S-Phrases
<b>Bromadiolon 0,5g/kg</b>	T+,N	R27/28, 48/24/25, 50/53	S1/2,13,46,49,61
	<b>CAS</b>	<b>EINECS/ELINCS</b>	<b>INDEX No.</b>
	28772-56-7	249-205-9	-
IUPAC: 3-[3-(4'-bromobiphenyl-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxycoumarin CA: 3-[3-(4'-bromo fl,1'-biphenyl]-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy-2H-1-benzopyran-2-one			
	SYMBOL	R-Phrases	S-Phrases
<b>BITREX 0,1g/kg</b>	Xn	R20/22, 37, 38, 41, 52/53	S22,26,35,36/37/39,45,61
	<b>CAS</b>	<b>EINECS/ELINCS</b>	<b>INDEX No.</b>
	3734-33-6	223-095-2	-
IUPAC: N-[2-[2,6-dimethyl phenyl]amino]-2-oxoethyl]-N,N-diethylbenzenemethanaminium benzoate			
	SYMBOL	R-Phrases	S-Phrases
<b>Butylated hydroxytoluene 1 g/kg</b>	Xn	R41, 20/21/22, 36/37/38	S24,28,60
	<b>CAS</b>	<b>EINECS/ELINCS</b>	<b>INDEX No.</b>
	128-37-0	204-881-4	-
IUPAC: (2,6-bis (1,1-dimethylethyl))-4- methylfenol			

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#### 4. FIRST AID measures

Never induce vomiting and do not give anything to drink or eat if the patient is unconscious. Symptomatic treatment.

4.1 **Inhalation:** Move to fresh air. Obtain medical advice immediately.

4.2 **Contact with skin:** Remove contaminated clothing Wash off immediately with soap and plenty of water. If irritation persists see medical advice. Contaminated clothing should be washed and dried before re-use Harmful in contact with skin.

4.3 **Contact with eye:** Flush immediately eyes with a large amount of water for 15 minutes. Take advice of an ophthalmologist if irritation develops.

4.4 **Ingestion:** Harmful if swallowed Wash out mouth. Do not induce vomiting. Do not give anything to eat or drink. Keep patient warm at rest. Seek medical advice immediately.

**General advice:** In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Advice for physicians:** Brodifacoum is an indirect anticoagulant. Phytomenadione, Vitamin K<sub>1</sub>, is antidote. Determine prothrombin times not less than 18 hours after consumption. If elevated, administer Vitamin K<sub>1</sub> 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.

#### 5. FIRE-FIGHTING MEASURES

The product is not-flammable, but is combustible.

5.1 **Suitable extinguishing media:** Carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, dry powder, water spray, mist or foam.

5.2 **Unsuitable extinguishing media:** Water jet from a fire hose.

5.3 **Fire and explosion hazards:** In case of fire, the product emits toxic and irritating fumes.

5.4 **Special protective equipments:** Wear self-contained breathing apparatus and protective clothing

**Other recommendations:** Do not breathe fumes. Keep fire exposed containers cool by spraying with water if exposed to fire.

#### 6. ACCIDENTAL RELEASE MEASURES

6.1 **Personal protection:** Wear protective equipment. (Figure 8)

6.2 **Environment precautions:** Sweep into a suitable container and store material collected.

6.3 **Clean-up procedures:** Soak up with sand or other non-combustible absorbent material and place into containers for disposal.

**Other information:** -

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## 7. HANDLING AND STORAGE

- 7.1 **Handling:** Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking. Do not smoke eat or drink while handling this product. Always use good personal hygiene procedures when handling chemicals.
- 7.2 **Storage:** Store in dry cool well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Keep in original container.
- 7.3 **Specific use:** product is meant for diminish unwanted population of rats and mice.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 **Exposure limit values:** TWA(Bromadiolone): 0.002 mg/m<sup>3</sup>  
 TWA(Propylene glycol): 150 ppm = 470 mg/m<sup>3</sup>
- 8.2. **Exposure controls:** Ensure adequate ventilation, especially in confined areas.
- 8.2.1 **Occupational exposure controls**
- 8.2.1.1: **Respiratory protection:** Suitable approved respirator if exposed to spray mists.
- 8.2.1.2: **Hand protection:** Wear suitable gloves
- 8.2.1.3 **Eyes protection:** Tightly fitting safety goggles.
- 8.2.1.4: **Skin protection:** Impervious clothing, boots.
- 8.2.2 **Environmental exposure protection:** Avoid release to the environment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. General information

Appearance: Red clean liquid  
 Odour: Specific – according to aroma

### 9.2. Important health, safety and environmental information

pH: n.a.  
 Boiling point/boiling range: (83 – 85 °C - Propylene glycol)  
 Solidification point: n.a.  
 Flash point:: (103 °C – Propylene glycol)  
 Flammability: none  
 Self ignition:: none  
 Explosive properties: none.  
 Oxidizing properties: none.  
 Density: ca. 1.05 kg/dm<sup>3</sup> @ 20 °C  
 Water solubility: miscable  
 (19 mg/L @ 20°C – bromadiolone)  
 Viscosity: -  
 Vapour pressure: (2×10<sup>-6</sup> Pa @20°C – bromadiolon)

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Partition coefficient: n-octanol/water (log Kow=7.3 – bromadiolon)

9.3 **Other information:** n.a.: not applicable

## 10. STABILITY AND REACTIVITY

10.1 **Condition to avoid:** high temperature

10.2 **Material to avoid:** strong oxidizers

10.3 **Hazardous decomposition products:** stable under normal conditions. Combustion or thermal decomposition will produce toxic and irritant fumes.

## 11. TOXICOLOGICAL INFORMATION

All data is about the active ingredient – BROMADIOLONE.

### 11.1 Acute toxicity:

Oral: LD<sub>50</sub> (rat) = 1.125 mg/kg (WHO)

LD<sub>50</sub> (rat) = 400 mg/kg – for bait

LD<sub>50</sub> (mouse) = 1.75 mg/kg

Dermal: LD<sub>50</sub> (rat) = 2.1 mg/kg

Inhalation: LC<sub>50</sub> (4h, rat) = 5.0 – 19.3 mg/m<sup>3</sup>

### 11.2 Irritant potential:

Eyes: Slightly irritating (rabbits)

Dermal: Non irritating

Sensitization: Unknown

## 12. ECOLOGICAL INFORMATION

For active ingredient:

12.1 **Ecotoxicity:** Fish: LC<sub>50</sub> (96 hours, different species) = 1.4 – 3.5 mg/L.

Avian: LC<sub>50</sub> = 0.264 mg/kg

12.2 **Mobility:** K<sub>OC</sub> = 528; classification: immobile ( Technical report n.14/07/1997 Chemservice)

12.3 **Persistence and degradability :** DT<sub>50</sub> (soil) = 1.8 – 7.4 days

12.4 **Bioaccumulative potential:** Log P<sub>ow</sub>: 3.5 (Studio CH-14/96-B Chemservice)

12.5 **Results of PBT assessment:** no data

**Other information:** Do not dispose material in sewers and waterways.

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### 13. Disposal consideration

Disposal should be in accordance with local, state or national legislation. Make container unusable.

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### 14. Transport information

**Proper shipping name** COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC

There are no regulatory restrictions affecting the transport of the product. Transport conditions should be in accordance with section 7.2.

**UN No.:** 3026; Not restricted.

**Road, rail:** (ADR / RID)

Class: 6.1

group: III.

**Sea (IMO / IMDG)**

Class: 6.1

group: III.

Marine pollutant: NO

**Air (ICAO / IATA)**

Class: 6.1

Group: III.

Packing: 618

Small quantities - bottles: Free.

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### 15. REGULATORY INFORMATION



15.1 **Symbols and labelling:** Xn - harmful

15.2 **Special risks (R):**

R21/22 - Harmful in contact with skin and if swallowed.

R48/21/22 – Harmful: prolonged skin contact or ingestion may cause serious health problems.

R52/53 – Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

15.3 **Safety advices (S):**

S 2 – Keep out of the reach of children.

S13 – Keep away from food, drink and animal feeding stuffs.

S20/21 – When using do not eat, drink or smoke.

S36/37 – Wear suitable protective clothing and gloves.

S46 – If swallowed, seek medical advice immediately and show this container or label.

S 61 - Avoid release to the environment. Refer to special instructions / Safety data sheets.

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### 16. OTHER INFORMATION

All the information of this safety data sheet is based on our actual knowledge as well as on EEC regulations.

The product has not to be employed for different uses than those indicated in section 1.

**Training:** Workers should be trained avoid skin contact with the bait.

**R-sentences in the document:**

R20/22 – Harmful by inhalation and if swallowed.

R26/27/28 – Very toxic by inhalation, in contact with skin and if swallowed.

R36/38 – Very toxic by inhalation, in contact with skin and if swallowed.

R38 – Irritating to skin.

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R41 – Risk of serious damage to eyes.

R48/24/25 – Toxic danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.

R50/53 – Toxic danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.

R52/53 – Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-sentences in the document:**

S1/2 – Keep locked up and out of the reach of children.

S22 – Keep locked up and out of the reach of children.

S24 – Keep locked up and out of the reach of children.

S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 – After contact with skin, wash immediately with plenty of water with soap.

S35 – This material and its container must be disposed of in a safe way.

S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection.

S45 – In case of accident or if you feel unwell, seek medical advice immediately.

S49 – Keep only in the original container

S60 – This material and its container must be disposed of as hazardous waste.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.