

# MATERIALS SAFETY DATA SHEET

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## BRIGAND - Bromadiolone Pellets

Revision 1  
Revision date 30-Jun--2010

### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

**Product name** Brigand Bromadiolone Bait Pellets  
**Company** PelGar International Ltd  
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**Emergency telephone number** Tel +44 (0) 1420 80744  
**Product code** 702.  
**Intended use** Ready for use rodenticide containing 50ppm bromadiolone.

### 2 HAZARDS IDENTIFICATION.

**Main hazards** The preparation is non-dangerous in accordance with Directive 1999/45/EC. Unlikely to cause harmful effects under normal conditions of handling and use. Harmful to Wildlife. 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.

#### Hazardous ingredients

	Conc.	CAS	EINECS	Symbols/Risk phrases
Denatonium benzoate	0.001%	3734-33-6	223-095-2	Xn;R20 Xn;R22 Xi;R37 Xi;R38 Xi;R41 R52/53
propane-1,2-diol	1 - 10%	57-55-6	200-338-0	
Sugar (Sucrose)	1 - 10%	57-50-1		
Paraffin Wax	30 - 40%	8002-74-2	232-315-6	
Bromadiolone	0.005%	28772-56-7	249-205-9	T+; R27/28 T; R48/24/25 R50/53
1,2-Benzisothiazolin-3-one	<0.02%	2634-33-5	220-120-9	Xn; R22 Xi; R38-41 R43 N; R50

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## 4. FIRST AID MEASURES

<b>Skin contact</b>	May cause skin irritation in susceptible persons. Remove contaminated clothing. Wash off immediately with plenty of soap and water. If irritation persists obtain medical attention. Contaminated clothing should be washed and dried before re-use.
<b>Eye contact</b>	May cause eye irritation of susceptible persons. Rinse immediately with plenty of water and seek medical advice if irritation persists.
<b>Inhalation</b>	Unlikely to present an inhalation hazard as the product is supplied as a solid block. Move the exposed person to fresh air. Obtain medical advice immediately.
<b>Ingestion</b>	If swallowed, seek medical advice immediately and show this container or label.
<b>General information</b>	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). <b>ADVICE FOR DOCTORS:</b> Bromadiolone 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.

## 5. FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Keep fire exposed containers cool by spraying with water if exposed to fire. Carbon dioxide (CO <sub>2</sub> ) Alcohol resistant foam. Dry chemical. Use extinguishing media appropriate to the surrounding fire conditions.
<b>Protective equipment</b>	Do not use water jets. in the event of fire, wear self-contained breathing apparatus, suitable gloves and boots.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Wear suitable protective clothing, gloves and eye/face protection. See section 8.
<b>Environmental precautions</b>	prevent further leakage or spillage if safe to do..
<b>Clean up methods</b>	Clean up promptly by sweeping. Transfer to a suitable labelled container. Subsequently, wash the contaminated area with water, taking care to prevent the washings entering sewers or drains.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid contact with eyes and skin. Avoid formation of dust. Do not smoke eat or drink while handling this product . Always use good personal hygiene procedures when handling chemicals. Wash hands and face before eating, drinking or smoking. Read the label before use. Unlikely to produce dust as the product is a wax block.
<b>Storage</b>	Keep in a cool, dry, well ventilated area. Keep out of the reach of children. Keep away from food and animal feedstuffs. Keep away from oxidising agents.
<b>Specific use</b>	Ready for use rodenticide containing 50ppm bromadiolone.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure limits

propane-1,2-diol (Propane-1,2-diol particulates)	WEL 8-hr limit ppm: - WEL 15 min limit ppm: -	WEL 8-hr limit mg/m3: 10 WEL 15 min limit mg/m3: -
propane-1,2-diol (Propane-1,2-diol total vapour and particulates)	WEL 8-hr limit ppm: 150 WEL 15 min limit ppm: -	WEL 8-hr limit mg/m3: 474 WEL 15 min limit mg/m3: -
Sugar (Sucrose)	WEL 8-hr limit ppm: - WEL 15 min limit ppm: -	WEL 8-hr limit mg/m3: 10 WEL 15 min limit mg/m3: 20
Paraffin Wax	WEL 8-hr limit ppm: WEL 15 min limit ppm:	WEL 8-hr limit mg/m3: 2 WEL 15 min limit mg/m3: 6
Paraffin Wax (Paraffin wax, fume)	WEL 8-hr limit ppm: - WEL 15 min limit ppm: -	WEL 8-hr limit mg/m3: 2 WEL 15 min limit mg/m3: 6

**Respiratory protection** Unlikely to present an inhalation hazard unless excessive dust is present. If levels approach the WEL, then suitable approved respiratory protection should be worn.

### Hand protection

impervious gloves.

### Eye protection

Tight fitting goggles if exposed to excessive dust.

### Protective equipment

impervious clothing, boots..

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Description</b>	Waxy Solid.
<b>Colour</b>	Red.
<b>Odour</b>	Slight.
<b>Flammability limits</b>	Combustible
<b>Relative density</b>	Not available
<b>Melting point</b>	~ 60 (for the wax)°C

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions.
<b>Conditions to avoid</b>	Heat, sparks and open flames.
<b>Materials to avoid</b>	Oxidising agents.
<b>Hazardous decomposition products</b>	Combustion or thermal decomposition will produce toxic and irritant fumes.

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## 11. TOXICOLOGICAL INFORMATION

### Toxicological information

Denatonium benzoate	Oral Rat LD50 = 749 mg/kg Inhalation Rat LC50/4 h = 0.2 mg/l
propane-1,2-diol	Oral Rat LD50 >2000 mg.kg
Bromadiolone	Dermal Rat LD50 = 23 mg/kg Oral Rat LD50 < 5mg/kg

<b>Acute toxicity</b>	ORL RAT LD50 approx 20g/Kg (calculated).
<b>Corrosivity</b>	No irritation expected.
<b>Sensitization</b>	Grain Dust and flour dust are respiratory sensitizers causing asthma. As the product is a solid, it is unlikely to cause any problems during normal use.
<b>Mutagenic effects</b>	No evidence to suggest anticoagulant rodenticides are mutagenic.
<b>Carcinogenic effects</b>	No evidence to suggest anticoagulant rodenticides are carcinogenic.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** As the product contains 50ppm bromadiolone, unlikely to be hazardous to aquatic life.

propane-1,2-diol	Daphnia EC50/48h = 100 mg/l Fish LC50/96h = 100 mg/l
Bromadiolone	Daphnia EC50/48h = 5.79 mg/l Rainbow trout LC50/96h = 2.89 mg/l

**Further information** Harmful to wildlife. Read all precautions before use.

## 13. DISPOSAL CONSIDERATIONS

<b>General information</b>	Dispose of in compliance with all local and national regulations.
<b>Disposal of packaging</b>	Empty containers can be sent to landfill after cleaning, if in compliance with local and national regulations.

## 14. TRANSPORT INFORMATION

**Further information** Not classified as dangerous for transport.

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## 15. REGULATORY INFORMATION

**Labelling** Not classified as a dangerous preparation

## 16. OTHER INFORMATION

**Text of risk phrases in Section 3.**

R20 - Harmful by inhalation.  
R22 - Harmful if swallowed.  
R27/28 - Very toxic in contact with skin and if swallowed.  
R37 - Irritating to respiratory system.  
R38 - Irritating to skin.  
R41 - Risk of serious damage to eyes.  
R43 - May cause sensitisation by skin contact.  
R48/24/25 - Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.  
R50 - Very toxic to aquatic organisms.  
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Restricted use** ready for use rodenticide containing 50 ppm bromadiolone.

**Data sources** EEC Directive 67/548 as amended. EH40. Raw material suppliers Safety Data Sheets.