

## Safety Data Sheet

Issue : 02 09 : 05 : 2014

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	
<b>Product Name</b>	<b>BROMARD (with Bitrex®) L6153</b>
<b>Description</b>	A blue, ready-to-use, rodenticidal paste with no perceptible odour and a bittering agent. For use by professional operators for the control of rats and mice.
<b>Company</b>	Rentokil SA (Pty) Ltd, 2 Stigant Road Claremont, 7708 South Africa Telephone: +27 21 670 4700 Fax: 086 777 1132
<b>Manufacturer</b>	Rentokil Initial Supplies, Liverpool, L33 7SR. Product advice line: +44 (0)151 548 5050 Emergency line: +44 (0)1342 833 022 E-mail: <a href="mailto:sds@rentokil.com">sds@rentokil.com</a>

2 HAZARD IDENTIFICATION	
<b>Classification (Supply – Use) : In compliance with the Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 1947 (Act No. 36 of 1947)</b>	
<b>RSA GROUP III : SLIGHTLY HAZARDOUS</b>	<b>CAUTION/VERSIGTIG</b>
<b>Adverse Physical, Chemical, Significant Human Health and Environmental Effects (See also box 11):</b>	
None expected under normal conditions of handling and use.	
This product contains an anticoagulant compound. If ingested symptoms may include nosebleed and bleeding gums. In severe cases there may be bruising, haematomas and blood present in the faeces and urine.	

3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)	
% w/w	Common*/Chemical Name, ELINCS/EINECS & CAS No. of Ingredients
0.01	Bromadiolone* / 3-[3-(4'-bromo[1,1'-biphenyl]-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy-2-benzopyrone EINECS : 249-205-09 CAS : 28772-56-7
≤ 0.1	Bitrex®* / denatonium benzoate EINECS : 223-095-2 CAS : 3734-33-6

**BROMARD (with Bitrex®)**

#### 4 FIRST-AID MEASURES (SEE ALSO "ADVERSE EFFECTS" IN BOX 2)

<b>Inhalation</b>	This route of exposure is not anticipated.
<b>Eye Contact</b>	Rinse affected eye with clean running water, or eyewash solution, for at least 15 minutes holding eyelids well apart. Rinse entire surface and do not allow run-off to contaminate unaffected eye. Seek medical attention.
<b>Skin Contact</b>	Remove and wash contaminated clothing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice.
<b>Ingestion (Swallowing)</b>	Do NOT induce vomiting. If unconscious place in the recovery position and apply supportive measures if necessary. If conscious give patient up to ½ litre or 1 pint of water to drink. Seek medical attention.
<b>Emergency Equipment Suggested</b>	Appropriate first-aid equipment should be provided.
<b>Note To Doctor</b>	For further information contact the National Poisons Information Service. Vitamin K1 is a known antidote.

#### 5 FIRE FIGHTING MEASURES

<b>Fire Extinguisher Type</b>	Use carbon dioxide, foam, water, or dry powder extinguishers.
<b>Special Fire-Fighting Procedures</b>	Wear suitable personal protective equipment.
<b>Special Exposure Hazards</b>	Combustion or thermal decomposition may evolve toxic and irritant vapours.

#### 6 ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions (See also box 8)</b>	Wear suitable personal protective equipment.
<b>Environmental Precautions</b>	Keep away from drains, surface and ground water, and soil.
<b>Clean-up Procedure (See also box 13)</b>	Collect up spilt material and transfer to suitable container for re-use or subsequent disposal.

#### 7 HANDLING AND STORAGE (SEE ALSO BOX 8)

<b>Handling</b>	No specific handling requirements.
<b>Storage</b>	Store in original container in a cool, dry, ventilated place out of the reach of children and away from food, drink and animal feeding stuffs.

#### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Exposure Standard - Directive EC/98/24 (1<sup>st</sup> IOELV Directive)</b>	Not assigned.
<b>Engineering Controls</b>	Where exposure may occur, engineering controls, rather than the provision of Personal Protective Equipment (PPE) should be employed. On completion of a risk assessment, the following PPE may be required:
<b>Eye Protection</b>	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
<b>Hand Protection</b>	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
<b>Skin Protection</b>	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
<b>Breathing Protection</b>	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
<b>Environmental Exposure Controls</b>	Use only in accordance with instructions given.

#### 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance and Odour</b>	A blue paste with no perceptible odour.		
<b>pH</b>	Not applicable.	<b>Solubility in Water</b>	Insoluble.
<b>Bulk Density</b>	1.0 g/cm <sup>3</sup> at 20°C	<b>Solubility in Other Solvents</b>	Soluble.
<b>Flash Point</b>	Not applicable.	<b>Explosive Properties</b>	None known.
<b>Flammability</b>	Non-flammable.	<b>Combustibility</b>	Combustible.
<b>Boiling Point/Range</b>	Not applicable.	<b>Oxidising Properties</b>	None known.
<b>Vapour Density</b>	Not applicable.	<b>Evaporation Rate</b>	Not applicable.
<b>Vapour Pressure</b>	Not applicable.	<b>Partition Coefficient</b>	Not applicable.
<b>Viscosity</b>	Not applicable.	<b>Other Data</b>	None known.

## 10 STABILITY AND REACTIVITY

<b>Conditions to avoid</b>	Avoid extremes of temperature, e.g. below 0°C and above 40°C.
<b>Materials to avoid</b>	None.
<b>Hazardous Breakdown Products</b>	Combustion or thermal decomposition may evolve toxic or irritant vapours.

## 11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

<b>Acute Toxicity</b>	Oral	LD <sub>50</sub> (rat) : >2000 mg/kg.
	Inhalation	This route of exposure is not anticipated.
	Dermal	LD <sub>50</sub> (rat) : >2000 mg/kg.
<b>Corrosivity/Irritation</b>	Skin	This product may be slightly irritating.
	Eyes	This product may be slightly irritating.
	Respiratory tract	Not determined.
<b>Sensitisation</b>	Skin	This product is not known to be a skin sensitiser.
	Respiratory	Contains no known respiratory sensitisers.
<b>Repeat-Dose Toxicity</b>		Product does not contain any components known to have any effects relating to repeated-dose toxicity.
<b>Mutagenicity</b>		Product does not contain any components at concentrations greater than 0.1% w/w known to have a mutagenic effect.
<b>Carcinogenicity</b>		Product does not contain any components at concentrations greater than 0.1% w/w known to have a carcinogenic effect.
<b>Reproductive Toxicity</b>	Fertility Development	Product does not contain any components known to have effects on fertility. Product does not contain any components known to be toxic to the reproductive system.
<b>Other Information</b>		Bromadiolone is an indirect anticoagulant. Phytomenadione, Vitamin K1, is antidotal. Determine prothrombin times not less than eighteen hours after consumption. If elevated, administer Vitamin K1 until prothrombin time normalises. Continue determination of prothrombin time for two weeks after withdrawal of the antidote and resume treatment if elevation occurs in that time.




## 12 ECOLOGICAL INFORMATION

<b>General Information</b>	This product does not contain any substances that are classified as dangerous to the environment present above the lower limits of concentration as specified in EC Directive 1999/45. Controlled release of this product is not expected to cause environmental contamination. Use only in accordance with instructions given.
<b>Ecotoxicity Data</b>	<u>For bromadiolone:</u> LC <sub>50</sub> (Fish: <i>Oncorhynchus mykiss</i> ) (96h): >1.4 mg/L LC <sub>50</sub> (Fish: <i>Lepomis macrochirus</i> ) (96h): >3.0 mg/L E <sub>b</sub> C <sub>50</sub> (algae: <i>Scenedesmus subspicatus</i> ) (72h): 0.17 mg/L
<b>Mobility</b>	<u>For bromadiolone:</u> Bromadiolone, and any potential degradation products, even if released indirectly to soil in small quantities, are not likely to move through the soil profile and are unlikely to reach groundwater in significant quantities.
<b>Persistence and Degradability</b>	<u>For bromadiolone:</u> Bromadiolone is not considered volatile and is not expected to volatilise to air in significant quantities.
<b>Bioaccumulative Potential</b>	<u>For bromadiolone:</u> The log Pow is greater than 3, which indicates a potential to bioaccumulate.
<b>Other Adverse Effects</b>	None known.

## 13 DISPOSAL CONSIDERATIONS

<b>Disposal of Waste / Containers</b>	This product and its empty container must be disposed of as controlled waste. Under normal circumstances, waste product / empty containers will be disposed of by Rentokil Initial.
<b>Note for Disposal</b>	The best means of disposal of any product is through proper use according to the label. Disposal must be in accordance with Local, State or National Requirements.

14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)				
UN No.	Not classified.		RIS Code	
Transport Category	Not required.	UK Hazchem EAC	Not required. PSB17	
ADR 2009 (International Road)	Class Not required.	ADR HIN	Not required.	
Proper Shipping Name	Not required.		Labels  Not required.	
Limited Quantity Exemptions	Not required.			
Special Requirements	Not required.	Packing Group		Not required.
IMDG 2008 (Sea)	Class Not required.	IMDG EMS		Not required.
Proper Shipping Name	Not required.		Labels  Not required.	
Limited Quantity Exemptions	Not required.			
Special Requirements	Not required.	Packing Group		Not required.
Note for Transport	Local, State or National requirements may apply to the carriage of this product.			

15 REGULATORY INFORMATION (HEALTH AND SAFETY INFORMATION (SEE ALSO BOX 2))	
Storage Pictograms	 <p>Store away from food and feedstuffs. Keep out of reach of children, uninformed persons and animals.</p>
Activity Pictograms	Not required.
Advice Pictograms	 <p>Wear protective clothing – gloves. Wash with soap and water immediately after use.</p>
Warning Pictograms	 <p>Harmful to animals.</p>
Legislation	<p>Classification and labelling is in compliance with the Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 1947 (Act no. 36 of 1947). Other National measures or guidance should be followed where appropriate.</p>

16 Other Information and indication of revisions	
Bitrex <sup>®</sup> is a registered trademark of Macfarlan Smith Ltd.	
Packaging Information	400g in a white polypropylene tube.
Revisions	Not required.

SDS 019-13

## BROMARD (with Bitrex<sup>®</sup>)

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**Before using any product, ensure that you read and understand its label.**

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