

Products

Safety Data Sheet

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Issue : 01 16 : 11 : 2005

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	
Product Name	RAT KILLER BOX (with Bitrex™)
Description	A tamper-resistant bait box containing blue, ready-to-use, rodenticidal, grain-based bait blocks. Contains a bittering additive to help prevent swallowing by humans. For amateur use in the control of rats indoors and outdoors.
Company	Rentokil Initial Supplies, Head office: Felcourt, East Grinstead, West Sussex. RH19 2JY. United Kingdom. Telephone: +44 (0)1342 833022 Facsimile: +44 (0)1342 326229

2 HAZARD IDENTIFICATION
Classification (Supply – Use) : In compliance with EC Directive 1999/45.
Not classified
Adverse Physical, Chemical, Significant Human Health and Environmental Effects (See also box 11):
Combustion or thermal decomposition may evolve toxic or irritant vapours. This product contains an anticoagulant compound. If sufficient quantities are ingested (more than 1.5kg for a 70kg human), nose-bleed and bleeding gums may occur. In severe cases there may be bruising, haematomas of the joints and blood present in the urine and faeces. Adverse effects on the environment are unlikely, provided that the product is used as intended.

3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)		
% w/w	Common*/Chemical Name, Elincs/Einecs & CAS No. of Ingredients	EC 1999/45 Classification
0.005	Bromadiolone* / 3-[3-(4'-bromobiphenyl-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxycoumarin. EINECS : 249-205-9 CAS : 28772-56-7	T+ : R27/28 N : R51/53
≤1.0	Bitrex™* / denatonium benzoate EINECS : 223-095-2 CAS : 3734-33-6	X _n : R20/22 X _i : R38 X _i : R41 : R52,53
> 2.5 ≤10.0	Propylene glycol* / propane-1,2-diol EINECS : 200-338-0 CAS : 57-55-6	Not classified.

RAT KILLER BOX

4 FIRST-AID MEASURES (SEE ALSO “ADVERSE EFFECTS” IN BOX 2)	
Inhalation	This route of exposure is not anticipated.
Eye Contact	This route of exposure is not anticipated.
Skin Contact	This route of exposure is not anticipated.
Ingestion (Swallowing)	This route of exposure is not anticipated.
Emergency Equipment Suggested	Appropriate first-aid equipment should be provided. For the UK this should be in accordance with the Health & Safety (First-Aid) Regulations 1981. See also the Approved Code of Practice “First-aid at Work”.
Note To Doctor	Further information on all Rentokil Initial formulations is lodged with the National Poisons Information Service in the UK.

5 FIRE FIGHTING MEASURES	
Fire Extinguisher Type	Use foam, water, carbon dioxide or dry powder extinguishers.
Special Fire-Fighting Procedures	Wear suitable personal protective equipment.
Special Exposure Hazards	Combustion or thermal decomposition may evolve toxic or irritant vapours.

6 ACCIDENTAL RELEASE MEASURES	
Personal Precautions (See also box 8)	Wear suitable personal protective equipment.
Environmental Precautions	Keep away from drains, surface and ground water, and soil.
Clean-up Procedure (See also box 13)	If box and bait are undamaged then re-use. If not, then brush up any spillage and transfer to a suitable container for subsequent disposal.

7 HANDLING AND STORAGE (SEE ALSO BOX 8)	
Handling	Avoid all contact by mouth. Wash hands and exposed skin before meals and after use.
Storage	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	
Exposure Standard - Directive EC/98/24 (1st IOELV Directive)	WEL for propylene glycol for total (vapour and particulates) is 474 mg/m ³ long term exposure (8 hour Time Weighted Average) and for particulates is 10 mg/m ³ long-term exposure (8 hour TWA).
Engineering Controls	Propylene glycol is referred to as propane-1,2-diol in Directive EC/98/24 (1 st IOELV Directive). 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:
Eye Protection	None necessary during normal handling and use.
Hand Protection	None necessary during normal handling and use.
Skin Protection	None necessary during normal handling and use.
Breathing Protection	None necessary during normal handling and use.
Environmental Exposure Controls	Use only in accordance with instructions given.

9 PHYSICAL AND CHEMICAL PROPERTIES			
Appearance and Odour	A tamper-resistant bait box containing blue, ready-to-use, rodenticidal, grain-based bait blocks. Contains a bittering additive to help prevent swallowing by humans.		
pH	Not applicable.	Solubility in Water	Insoluble.
Bulk Density	1.3 g/cm ³ at 20°C	Solubility in Other Solvents	Insoluble.
Flash Point	Not applicable.	Explosive Properties	None.
Flammability	Non-flammable.	Combustibility	Non-combustible.
Boiling Point/Range	Not applicable.	Oxidising Properties	Not determined.
Vapour Density	Not applicable.	Evaporation Rate	Not applicable.
Vapour Pressure	Not applicable.	Partition Coefficient	Not applicable.
Viscosity	Not applicable.	Other Data	None known.

RAT KILLER BOX

10 STABILITY AND REACTIVITY

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

11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

Acute Toxicity	Oral	LD ₅₀ (rat) : 6233 to 8014 mg/kg (product).
	Inhalation	Not determined.
	Dermal	Not determined.
Corrosivity/Irritation	Skin	Not determined.
	Eyes	Not determined.
	Respiratory tract	Not determined.
Sensitisation	Skin	Contains no known skin sensitisers.
	Respiratory	Contains no known respiratory sensitisers.
Repeat-Dose Toxicity		Product does not contain any components known to have any effects relating to repeated-dose toxicity.
Mutagenicity		Product does not contain any components known to have a mutagenic effect.
Carcinogenicity		Product does not contain any components known to have a carcinogenic effect.
Reproductive Toxicity	Fertility	Product does not contain any components known to have effects on fertility.
	Development	Product does not contain any components known to be toxic to the reproductive system.
Other Information		Bromadiolone is an indirect anticoagulant. Phytomenadione (Vitamin K ₁) is antidotal. Determine prothrombin times not less than eighteen hours after consumption. If elevated, administer Vitamin K ₁ until prothrombin time for two weeks after withdrawal of antidote and resume treatment if elevation occurs in that time.

12 ECOLOGICAL INFORMATION

General Information	The bromadiolone and Bitrex™ in this product is classified as toxic and harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment. However, when used in accordance with instructions given, controlled release of this product is not expected to cause environmental contamination.
Ecotoxicity Data	For bromadiolone: LC ₅₀ Bluegill sunfish (96h): 3.0 mg/L. LC ₅₀ <i>Daphnia</i> (48h): 2.0 mg/L. LC ₅₀ Rainbow trout (96h): 1.4 mg/L. For Bitrex™: LC ₅₀ Rainbow trout (96h): >1000 mg/L. EC ₅₀ <i>Daphnia magna</i> (48h): 13 mg/L.
Mobility	For Bitrex™: water solubility: 45 g/L.
Persistence and Degradability	For Bromadiolone: Very rapid degradation by agents that make water drinkable (chlorine, ozone, chlorine dioxide). Rapid degradation on soil under aerobic conditions: half-life of a few days. High sensitivity to photolysis in aqueous medium: half-life 2.1h at pH 7.3, lower sensitivity to hydrolysis: 67 days at pH 7. For Bitrex™: Abiotic degradation: 10% after 5 days at 50°C at all pHs.
Bioaccumulative Potential	Abiotic degradation: 10% after 30 days at 25°C at all pHs. For Bromadiolone: Fixation on clayey soil.
Other Adverse Effects	For Bitrex™: has a low bioaccumulation potential. None known.

13 DISPOSAL CONSIDERATIONS

Disposal of Waste / Containers	This product does not present a hazard to humans or the environment for the purposes of disposal. However, this product should be disposed of as controlled waste. This product is for amateur use only and can therefore be disposed of as normal household waste. However, if used in a place of work, ensure this product is disposed of as controlled hazardous waste, in accordance with the appropriate regulations.
Classification (Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC)	Hazard Code: Not classified.
Note for Disposal	Components making the waste hazardous Concentrations (%): Not required. For further advice about disposal, in the UK, contact the local office of the Environment Agency (England and Wales) or Scottish Environment Protection Agency. Local rate from anywhere in the UK: +44 (0) 870 850 6506.

14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)				
UN No.	Not Classified.	Tremcard Reference No.	Not required.	RIS Code
Transport Category	Not required.	UK Hazchem EAC	Not required.	PSR107
ADR 2005 (International Road)	Class Not required.	ADR HIN	Not required.	Labels
Proper Shipping Name	Not required.			Not required.
Limited Quantity Exemptions	Not required.			
Special Requirements	Not required. Packing Group Not required.			
IMDG 2004 (Sea)	Class Not required.	IMDG EMS	Not required.	
Proper Shipping Name	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))	
Safety Phrases	Safety phrases are not required.
Additional Label Phrases	To avoid risks to man and the environment, comply with instructions for use.
Legislation	<p>Labelling is in accordance with UK regulations implementing the EC Directive 1999/45.</p> <p>Additional labelling requirements may be necessary in accordance with other National legislation. Outside the UK, the registration of this product may be necessary before use and any additional local requirements must be observed at all times.</p> <p>The information given on this Safety Data Sheet (SDS) does not constitute an assessment in accordance with Control of Substances Hazardous to Health (COSHH) Regulations 2002, in the UK. Other National measures or guidance should be sought where appropriate.</p>

16 Other Information and indication of revisions	
Bitrex™ is a registered trademark of Macfarlan Smith Ltd.	
Packaging Information	A tamper-resistant bait box containing (4 x 120g) blue, ready-to-use, rodenticidal, grain-based bait blocks. Contains a bittering additive to help prevent swallowing by humans.
Revisions	Not applicable.
Risk phrase text (From box 3 - These refer to the ingredients only. See box 2 for the product risk phrases)	R27/28 : Very toxic in contact with skin and if swallowed. R20/22 : Harmful by inhalation and if swallowed. R38 : Irritating to skin. R41 : Risk of serious damage to eyes. R51/53 : 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.

RAT KILLER BOX

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

The information contained in this safety data sheet is, to the best of our knowledge and belief, accurate and reliable at the time of publication. The information relates only to the specific material designated in this safety data sheet and may not be valid for such material if it is used in combination with any other material(s) or any other use than that specified herein. Rentokil Initial UK Ltd is not liable for the use of this product for any other purpose than that described in this safety data sheet. This does not affect your statutory rights. It is the user's responsibility to satisfy him/herself as to the suitability in completeness of such information for his/her own particular use.

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Telephone: +44 (0) 1342 833022 Fax: +44 (0) 1342 326229 Web: www.ri-research.com

17 FORMULATION AND PACK DETAILS : FOR THE INFORMATION OF THE NATIONAL POISONS CENTRES ONLY

RAT KILLER BOX



Name of Component(s)	% W/W (EXACT)
Other components of Bromadiolone 1% solution*	0.556
*Contains Bromadiolone	0.005
Bitrex	0.005
Gelatin	4.500
Wheat/grain	49.970
Glycerol	24.580
Monopropylene glycol	4.399
Sodium benzoate	0.050
Formaldehyde solution	0.391
WS Deep Blue 76417	0.040
Water	15.504

Suppliers contact address, telephone and fax numbers:-

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Telephone: +44 (0)1342 833022, Facsimile: +44 (0)1342 326229, Web: www.ri-research.com

Pack Information:

Pack Size(s), type and description	Date first placed on market in UK
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A sealed, tamper-resistant bait box containing (4 x 120g), blue, ready-to-use, rodenticidal, grain-based bait blocks. Contains a bittering additive to avoid swallowing by humans. For amateur use in the control of rats indoors and outdoors.	01/01/2006
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