

Safety Data Sheet

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REVISION (see box 16)

Issue : 10 16 : 12 : 2008

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	
Product Name	BROMATROL CONTACT DUST
Description	A blue ready-to-use rodenticidal contact dust with no perceptible odour and a taste aversive agent. For use by professional operators in the control of rats and mice.
Company	Rentokil Initial Supplies, Liverpool, L33 7SR. Product advice line: +44 (0)151 548 5050 Emergency line: +44 (0)1293 858 000 E-mail: sds@rentokil.com

2 HAZARD IDENTIFICATION	
Classification (Supply – Use) : In compliance with EC Directive 1999/45.	
X_n Harmful	R20/22 Harmful by inhalation and if swallowed.
Adverse Physical, Chemical, Significant Human Health and Environmental Effects (See also box 11):	
This product contains an anticoagulant compound. If ingested, symptoms may include nosebleed and bleeding gums. In severe cases there may be bruising, haematomas of the joints and blood present in the faeces and urine. Phytomenadione, Vitamin K1, is antidotal.	
No other significant adverse effects expected under normal conditions of handling and use.	

3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)		
% w/w	Common*/Chemical Name, ELINCS/EINECS & CAS No. of Ingredients	EC 1999/45 Classification
≤ 0.15	Bromadiolone*/3-[3-4(4-bromobiphenyl-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxycoumarin EINECS : 249-205-9 CAS : 28772-56-7	T+ : R26/27/28 R52/53
≤ 1.0	Bitrex®*/Denatonium benzoate EINECS : 223-9-52 CAS : 3734-33-6	T : R20/22 X _i : R38 X _i : R41 R52/53
>50.0 ≤ 100.0	Kaolin EINECS : 310-194-1 CAS : 1332-58-7	Not classified. Substance with a Community Workplace Exposure Limit (refer to box 8).
>10.0 ≤ 25.0	Mica EINECS : 310-127-6 CAS : 12001-26-2	Not classified. Substance with a Community Workplace Exposure Limit (refer to box 8).
≤ 1.0	Quartz (silica, respirable crystalline) EINECS : 238-878-4 CAS : 14808-60-7	Not classified. Substance with a Community Workplace Exposure Limit (refer to box 8).

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4 FIRST-AID MEASURES (SEE ALSO “ADVERSE EFFECTS” IN BOX 2)	
Inhalation	Remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention.
Eye Contact	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.
Skin Contact	Remove and wash contaminated clothing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice.
Ingestion (Swallowing)	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.
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. Vitamin K1 is a known antidote.

5 FIRE FIGHTING MEASURES	
Fire Extinguisher Type	Use carbon dioxide, foam, water, 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)	Spills should be swept up carefully, avoiding the formation of a dust cloud, and transferred 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 eating, drinking or smoking and after use. Wear suitable gloves and a suitable dust mask when using and applying the product.
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)	Workplace Exposure Limit (WEL) for dusts is 10 mg/m ³ (8 hour Time Weighted Average (8hr TWA)) for inhalable dust and 4 mg/m ³ (8hr TWA) for respirable dust. WEL for kaolin (respirable dust) is 2 mg/m ³ long-term exposure (8hr TWA). WEL for mica (respirable) is 0.8 mg/m ³ long-term exposure (8hr TWA) and mica (total inhalable) is 10 mg/m ³ long-term exposure (8hr TWA) WEL for silica, respirable crystalline (quartz) is 0.1 mg/m ³ long-term exposure (8hr TWA). Quartz is referred to as silica, respirable crystalline in Directive EC/98/24 (1 st IOELV Directive).
Engineering Controls	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	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
Hand Protection	Suitable hand protection such as gloves.
Skin Protection	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
Breathing Protection	Suitable respiratory protection such as a suitable dust mask.
Environmental Exposure Controls	Use only in accordance with instructions given.

9 PHYSICAL AND CHEMICAL PROPERTIES			
Appearance and Odour	A blue dust with no perceptible odour.		
pH	Not applicable.	Solubility in Water	Virtually insoluble.
Density	Approx. 0.37 g/cm ³	Solubility in Other Solvents	Virtually insoluble.
Flash Point	Not applicable.	Explosive Properties	Contains no explosive components.
Flammability	Non-flammable.	Combustibility	Non-combustible.
Boiling Point/Range	Not applicable.	Oxidising Properties	Contains no oxidising components.
Vapour Density	Not applicable.	Evaporation Rate	Not applicable.
Vapour Pressure	Not applicable.	Partition Coefficient	Not applicable.
Viscosity	Not applicable.	Other Data	None known.

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10 STABILITY AND REACTIVITY

Conditions to avoid	Avoid extremes of temperature, e.g. below 0°C and above 40°C. State if different.
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): 1532 mg/kg.
	Inhalation	Not determined.
	Dermal	LD ₅₀ (rat): >2000 mg/kg.
Corrosivity/Irritation	Skin	Non-irritant (rabbit).
	Eyes	This product may be slightly irritating to eyes.
	Respiratory tract	Not determined.
Sensitisation	Skin	No evidence of sensitisation.
	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 at concentrations greater than 1% 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 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 antidote and resume treatment if elevation occurs in that time.

12 ECOLOGICAL INFORMATION

General Information	The bromadiolone and denatonium benzoate in this product are classified as 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	<u>For bromadiolone:</u> LC ₅₀ (<i>O. mykiss</i>) (96hr): >1.4 mg/L IC ₅₀ (<i>S. subspicatus</i>) (72hr): 0.17 mg/L EC ₅₀ (<i>Daphnia. Magna</i>) (48hr): 2.0 mg/L Acute NOEC (<i>E. foetida</i>) (14 days): >9.48 mg/kg soil Acute LOEC (<i>E. foetida</i>) (14 days): >9.48 mg/kg soil Acute LD ₅₀ (<i>E. foetida</i>) (14 days): >9.48 mg/kg soil Acute oral: NOEC (Bobwhite quail): 50 mg/kg (Mallard duck): 500 mg/kg LD/C ₅₀ (Bobwhite quail): 138 mg/kg (Mallard duck): 1293 mg/kg Short-term dietary: NOEC (Bobwhite quail) (30 days): <10 mg/kg (Mallard duck) (35 days): <19 mg/kg LD/C ₅₀ (Bobwhite quail) (30 days): 62 mg/kg (Mallard duck) (35 days): 110 mg/kg
Mobility	Bromadiolone is not very mobile.
Persistence and Degradability	Bromadiolone is not considered biodegradable. <u>For Bitrex Anhydrous Powder:</u> Abiotic degradation 10% after 5 days at 50°C at all pHs. Abiotic degradation 10% after 30 days at 25°C at all pHs.
Bioaccumulative Potential	For bromadiolone, the log Pow is >3, indicating a potential to bioaccumulate. Bitrex Anhydrous Powder has low bioaccumulation potential and water solubility of 45 g/L.
Other Adverse Effects	If Bitrex Anhydrous Powder is discharged at low concentrations into an adapted biological effluent treatment plant, the degrading action of the activated sludge will not be affected.

13 DISPOSAL CONSIDERATIONS

Disposal of Waste / Containers	Under normal circumstances, waste / empty containers will be disposed of by Rentokil Initial.
Classification (Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC))	<u>Hazard Code:</u> H5 - Harmful
Note for Disposal	<u>Components making the waste hazardous</u> Bromadiolone <u>Concentrations (%):</u> 0.15
	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.

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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.	PSB22 / PSB100
ADR 2007 (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 2006 (Sea)	Class Not required.	IMDG EMS	Not required.	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	S22 : Do not breathe dust. S25 : Avoid contact with eyes. S60 : This material and its container must be disposed of as hazardous waste.
Additional Label Phrases	To avoid risks to man and the environment, comply with the instructions for use.
Legislation	Labelling is in accordance with UK regulations implementing the EC Directive 1999/45. 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. 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 followed where appropriate.

16 Other Information and indication of revisions	
Bitrex® is a registered trademark of Macfarlan Smith Ltd.	
Packaging Information	1 kg polyethylene lined paper bag and a 300g polyethylene bottle.
Revisions	Changes have been made to the content of boxes 01, 02,03, 04, 05, 06, 07, 08, 09, 11, 12, 13, 14, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 09.
Risk phrase text (From box 3 - These refer to the ingredients only. See box 2 for the product risk phrases)	R20/22 : Harmful by inhalation and if swallowed. R26/27/28 : Very toxic by inhalation, in contact with skin and if swallowed. R38 : Irritating to skin. R41 : Risk of serious damage to eyes R52,53 : Harmful toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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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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