

# Safety Data Sheet

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**REVISION (see box 16)**

Issue : 08 04 : 02 : 2009

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	
<b>Product Name</b>	<b>DEADLINE CONTACT DUST</b> <span style="float: right;"><b>HSE 6722</b></span>
<b>Description</b>	A rodenticide for professional use. A blue, ready-to-use contact dust with no perceptible odour. Contains Bitrex <sup>®</sup> , a bittering agent.
<b>Company</b>	Rentokil Initial Supplies, Liverpool, L33 7SR. Product advice line: +44 (0)151 548 5050 Emergency line: +44 (0)1293 858 000 E-mail: <a href="mailto:sds@rentokil.com">sds@rentokil.com</a>

2 HAZARD IDENTIFICATION	
<b>Classification (Supply – Use) : In compliance with EC Directive 1999/45.</b>	
<b>X<sub>n</sub> Harmful</b>	R20/22 Harmful by inhalation and if swallowed
<b>Adverse Physical, Chemical, Significant Human Health and Environmental Effects (See also box 11):</b>	
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 <sup>®</sup> */denatonium benzoate EINECS : 223-095-2 CAS : 3734-33-6	T : R20/22 R38 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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<b>4 FIRST-AID MEASURES (SEE ALSO “ADVERSE EFFECTS” IN BOX 2)</b>			
<b>Inhalation</b>	Remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention.		
<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. 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”.		
<b>Note To Doctor</b>	Further information on all Rentokil Initial formulations is lodged with the National Poisons Information Service in the UK. Vitamin K1 is antidotal.		
<b>5 FIRE FIGHTING MEASURES</b>			
<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 or irritant vapours.		
<b>6 ACCIDENTAL RELEASE MEASURES</b>			
<b>Personal Precautions (See also box 8)</b>	Wear suitable personal protective equipment.		
<b>Environmental Precautions</b>	DO NOT contaminate watercourses or ground.		
<b>Clean-up Procedure (See also box 13)</b>	Spills should be swept up carefully, avoiding formation of dust clouds, and transferred to a suitable container for subsequent disposal.		
<b>7 HANDLING AND STORAGE (SEE ALSO BOX 8)</b>			
<b>Handling</b>	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 dust.		
<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.		
<b>8 EXPOSURE CONTROLS/PERSONAL PROTECTION</b>			
<b>Exposure Standard - Directive EC/98/24 (1<sup>st</sup> IOELV Directive)</b>	For dusts, is 10 mg/m <sup>3</sup> (8 hour Time Weighted Average (8hr TWA)) for inhalable dust and 4 mg/m <sup>3</sup> (8hr TWA) for respirable dust. For (99.5%) denatonium benzoate, is 0.1 mg/m <sup>3</sup> long-term exposure (8hr TWA). For kaolin (respirable dust), is 2 mg/m <sup>3</sup> long-term exposure (8hr TWA). For mica (respirable), is 0.8 mg/m <sup>3</sup> long-term exposure (8hr TWA) and mica (total inhalable) is 10 mg/m <sup>3</sup> long-term exposure (8hr TWA). For silica, respirable crystalline (quartz), is 0.1 mg/m <sup>3</sup> long-term exposure (8hr TWA). Quartz is referred to as silica, respirable crystalline in Directive EC/98/24 (1 <sup>st</sup> IOELV Directive).		
<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>	Wear suitable gloves.		
<b>Skin Protection</b>	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.		
<b>Breathing Protection</b>	Wear suitable respiratory protection such as a suitable dust mask.		
<b>Environmental Exposure Controls</b>	Use only in accordance with instructions given. An ecological hazard assessment indicates no specific restrictions on environmental release.		
<b>9 PHYSICAL AND CHEMICAL PROPERTIES</b>			
<b>Appearance and Odour</b>	A blue dust with no perceptible odour.		
<b>pH</b>	Not applicable.	<b>Solubility in Water</b>	Virtually insoluble.
<b>Bulk Density</b>	Ca. 0.37 g/cm <sup>3</sup> at 20°C	<b>Solubility in Other Solvents</b>	Virtually insoluble.
<b>Flash Point</b>	Not applicable.	<b>Explosive Properties</b>	None.
<b>Flammability</b>	Non-flammable.	<b>Combustibility</b>	Non-combustible.
<b>Boiling Point/Range</b>	Not applicable.	<b>Oxidising Properties</b>	None.
<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>	Melting point starts at ca. >150°C

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## 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) : 1532 mg/kg.
	Inhalation	Harmful by inhalation.
	Dermal	LD <sub>50</sub> (rat) : >2000 mg/kg.
<b>Corrosivity/Irritation</b>	Skin	Not expected to be irritating to skin.
	Eyes	May be slightly irritating to eyes.
	Respiratory tract	Not determined.
<b>Sensitisation</b>	Skin	Contains no known skin sensitisers.
	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 known to have a mutagenic effect.
<b>Carcinogenicity</b>		Product does not contain any components known to have a carcinogenic effect.
<b>Reproductive Toxicity</b>	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.
<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 antidote and resume treatment if elevation occurs in that time.

## 12 ECOLOGICAL INFORMATION

<b>General Information</b>	The bromadiolone in this product is 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.
<b>Ecotoxicity Data</b>	<u>For bromadiolone:</u> LC <sub>50</sub> ( <i>O. mykiss</i> ): >1.4 mg/L IC <sub>50</sub> ( <i>S. subspicatus</i> ) (72h): 0.17 mg/L EC <sub>50</sub> ( <i>Daphnia magna</i> ): 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 <sub>50</sub> ( <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 <sub>50</sub> (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 <sub>50</sub> (Bobwhite quail) (30 days): 62 mg/kg (Mallard duck) (35 days): 110 mg/kg
<b>Mobility</b>	Bromadiolone is not very mobile.
<b>Persistence and Degradability</b>	Bromadiolone is not considered biodegradable.
<b>Bioaccumulative Potential</b>	The bromadiolone log Pow is >3, indicating a potential to bioaccumulate.
<b>Other Adverse Effects</b>	None known.

## 13 DISPOSAL CONSIDERATIONS

<b>Disposal of Waste / Containers</b>	This product must be disposed of as hazardous waste. The empty container may be disposed of as controlled waste in accordance with the appropriate regulations.				
<b>Classification</b>	Hazard Code: H5 – Harmful.				
(Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC)	<table border="0"><tr><td><b>Components making the waste hazardous</b></td><td><b>Concentrations (%)</b></td></tr><tr><td>Bromadiolone</td><td>0.15</td></tr></table>	<b>Components making the waste hazardous</b>	<b>Concentrations (%)</b>	Bromadiolone	0.15
<b>Components making the waste hazardous</b>	<b>Concentrations (%)</b>				
Bromadiolone	0.15				
<b>Note for Disposal</b>	The best means of disposal of any product is through proper use according to the label. 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.	PSD47 PSD81
ADR 2009 (International Road) Proper Shipping Name	Class Not required.	ADR HIN	Not required.	Labels  Not required.
Limited Quantity Exemptions	Not required.			
Special Requirements	Not required.	Packing Group	Not required.	
IMDG 2008 (Sea) Proper Shipping Name	Class Not required.	IMDG EMS	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 Legislation	To avoid risks to man and the environment, comply with the instructions for use. 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) <b>does not</b> 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	White, plastic, 3kg tub with a snap-on lid or 300g plastic puffer packs.
Revisions	Changes have been made to the content of boxes 01, 02, 03, 04, 05, 08, 11, 12, 13, 14, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 07.
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.**

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