

Safety Data Sheet

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Issue : 01 26 : 02 : 2010

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY	
Product Name	BENDIOCARB DUSTING POWDER
Description	A fine, off-white powder with no perceptible odour. For professional use as an insecticidal dusting powder in the control of a wide range of insect pests in public hygiene and industrial situations.
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
Importer	Rentokil Initial UK Ltd., Gagaresh Road, Tripoli, Libya.

2 HAZARD IDENTIFICATION	
Classification (Supply – Use) : In compliance with EC Directive 1999/45.	
N Dangerous for the environment	R51,53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Adverse Physical, Chemical, Significant Human Health and Environmental Effects (See also box 11):	
This product contains an anticholinesterase carbamate compound. Excessive or prolonged inhalation may cause dizziness, headache, excessive sweating, abdominal pain, salivation, lachrymation, bradycardia, bronchoconstriction, muscular twitching, unconsciousness, convulsions and paralysis. Direct contact with eyes could lead to temporarily impaired vision. Symptoms of ingestion are mainly as for inhalation, plus nausea and vomiting.	
Prolonged or repeated exposure with product may cause skin dryness and may cause eye irritation and smarting.	
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
0.96	Bendiocarb* / 2,2-dimethyl-1,3-benzodioxol-4-yl N-methylcarbamate EINECS : 245-216-8 CAS : 22781-23-3	T : R23/25 : R21 N : R50,53
>25.0 ≤50.0	Calcium carbonate*	Not classified. Substance with a Community Workplace Exposure Limit (refer to box 8).
>25.0 ≤50.0	Talc*	Not classified. Substance with a Community Workplace Exposure Limit (refer to box 8).
> 1.0 ≤2.5	Quartz*	Not classified. Substance with a Community Workplace Exposure Limit (refer to box 8).
≤0.1	Silica, amorphous*	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.

5 FIRE FIGHTING MEASURES	
Fire Extinguisher Type	Product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.
Special Fire-Fighting Procedures	Wear suitable personal protective equipment.
Special Exposure Hazards	Decomposes above 125°C liberating toxic fumes of methyl isocyanate that are strongly lacrimatory and carbon dioxide.

6 ACCIDENTAL RELEASE MEASURES	
Personal Precautions (See also box 8)	Wear suitable personal protective equipment.
Environmental Precautions	This product is classified as dangerous for the environment. Keep away from drains, surface and ground water, and soil.
Clean-up Procedure (See also box 13)	Gather up spilt material being careful not to create dust clouds and transfer to a suitable container for subsequent disposal.

7 HANDLING AND STORAGE (SEE ALSO BOX 8)	
Handling	Do not breathe dust.
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)	WHO Operator Exposure Standard for bendiocarb is 0.2mg/m ³ . Workplace Exposure Limit (WEL) for silica, amorphous is 6 mg/m ³ long-term exposure (8 hour Time Weighted Average (8hr TWA)) for inhalable dust and 2.4 mg/m ³ long-term exposure (8hrTWA) for respirable dust. WEL for talc, respirable dust is 1 mg/m ³ long-term exposure (8hr TWA). WEL for 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). WEL for calcium carbonate (inhalable dust) is 10 mg/m ³ long-term exposure (8hrTWA) for inhalable dust and 4 mg/m ³ long-term exposure (8hrTWA) for respirable dust. WEL for dust is 10 mg/m ³ long-term exposure (8hr TWA) for inhalable dust and 4 mg/m ³ long-term exposure (8hr TWA) for respirable dust.
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	Suitable eye protection such as goggles.
Hand Protection	Suitable hand protection such as gloves.
Skin Protection	Suitable skin protection such as coveralls.
Breathing Protection	Suitable respiratory protection such as self-contained breathing apparatus. See HSE Guidance Booklet HS (G) 53: “The Selection, Use and Maintenance of Respiratory Protective Equipment – A Practical Guide.”
Environmental Exposure Controls	Use only in accordance with instructions given.

9 PHYSICAL AND CHEMICAL PROPERTIES			
Appearance and Odour	A fine, off-white powder with no perceptible odour.		
pH	Not applicable.	Solubility in Water	Virtually insoluble.
Density	Approximately 0.70 g/cm ³	Solubility in Other Solvents	Virtually insoluble.
Flash Point	>125°C	Explosive Properties	None known.
Flammability	Non-flammable.	Combustibility	Non-combustible.
Boiling Point/Range	Not applicable.	Oxidising Properties	None known.
Vapour Density	Not applicable.	Evaporation Rate	Not applicable.
Vapour Pressure	Not applicable.	Partition Coefficient	Not applicable.
Viscosity	Not applicable.	Other Data	Decomposes above 125°C liberating toxic fumes of methyl isocyanate that are strongly lacrimatory.

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10 STABILITY AND REACTIVITY

Conditions to avoid	Avoid extremes of temperature, e.g. below 0°C and above 40°C. Avoid direct sunlight.
Materials to avoid	Avoid contact with acids.
Hazardous Breakdown Products	Decomposes above 125°C liberating toxic fumes of methyl isocyanate that are strongly lacrimatory and carbon dioxide.

11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

Acute Toxicity	Oral	For bendiocarb: LD ₅₀ (rats): 40-156 mg/kg For bendiocarb: LD ₅₀ (mice): 45 mg/kg
Corrosivity/Irritation	Inhalation	For bendiocarb: LC ₅₀ (4h) (rats): 0.55 mg/L
	Dermal	For bendiocarb (80%): LD ₅₀ (rat): > 1000 mg/kg
	Skin	For bendiocarb: Non-irritant for rats. Prolonged or repeated exposure with product may cause skin dryness.
Sensitisation	Eyes	For bendiocarb: Non-irritant for rats. Product may cause irritation and smarting.
	Respiratory tract	Product may irritate respiratory system. Symptoms may include coughing, expectoration, sneezing and difficulty breathing due to upper respiratory tract irritation.
Repeat-Dose Toxicity	Skin	Contains no known skin sensitisers.
	Respiratory	Contains no known respiratory sensitisers.
Mutagenicity		For bendiocarb: NOEL (90d) and (2y) (rats): 10 mg/kg diet. 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		None known.


12 ECOLOGICAL INFORMATION

General Information	This product is classified as toxic 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 bendiocarb: Fish: LC ₅₀ , (96h), sheepshead minnows: 0.86 mg/L Daphnia: LC ₅₀ , (48h): 0.16 mg/L EC ₅₀ , (48h), <i>Daphnia magna</i> : 0.0377 mg/L Algae: EC ₅₀ , (48h), <i>Pseudokirchneriella subcapitata</i> : 0.408 mg/L Toxic to bees.
Mobility	Not determined.
Persistence and Degradability	Not determined.
Bioaccumulative Potential	For Bendiocarb: Bioconcentration Factor (BCF): 6 (Bluegill sunfish).
Other Adverse Effects	None known.

13 DISPOSAL CONSIDERATIONS

Disposal of Waste / Containers	This product is dangerous for the environment. Do not discharge to sewers, drains or watercourses. This product must be disposed of as hazardous waste. Empty containers may be disposed of as controlled waste in accordance with the appropriate regulations. Under normal circumstances, waste product / 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)	Hazard Code: H14 - Ecotoxic				
Note for Disposal	<table><tr><td>Components making the waste hazardous</td><td>Concentrations (%)</td></tr><tr><td>Bendiocarb</td><td>0.96</td></tr></table> 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	Components making the waste hazardous	Concentrations (%)	Bendiocarb	0.96
Components making the waste hazardous	Concentrations (%)				
Bendiocarb	0.96				

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14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)			
UN No.	UN3077		RIS Code
Transport Category	3	UK Hazchem EAC	2Z PSB05 PSB181
ADR 2009 (International Road)	Class 9 ADR HIN 90		Labels
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (contains bendiocarb).		
Limited Quantity Exemptions	Maximum quantity per inner receptacle is 6 kg. Maximum quantity per outer package is 30 kg. Combination packs only.		
Special Requirements	Not required. Packing Group III		
IMDG 2008 (Sea)	Class 9 IMDG EMS F-A, S-F		
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (contains bendiocarb).		
Limited Quantity Exemptions	Maximum quantity per inner receptacle is 5 kg. Maximum quantity per outer package is 30 kg. Combination packs only.		
Special Requirements	Not required. Packing Group III.		
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	<p>S35 This material and its container must be disposed of in a safe way.</p> <p>S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).</p> <p>S57 Use appropriate containment to avoid environmental contamination.</p> <p>S61 Avoid release to the environment. Refer to special instructions/safety data sheet.</p>
Additional Label Phrases	To avoid risks to man and the environment, comply with the 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 followed where appropriate.</p>

16 Other Information and indication of revisions	
Packaging Information	500g in a plastic tube and 1kg in a polyethylene lined paper bag.
Revisions	Not required.
Risk phrase text (From box 3 - These refer to the ingredients only. See box 2 for the product risk phrases)	<p>R21 : Harmful in contact with skin.</p> <p>R23/25 : Toxic by inhalation and if swallowed.</p> <p>R50,53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p>
	SDS414-06

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

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