

	Title	Material Safety Data Sheet	MSDS Doc. No.	BU003
	Document Responsible	BU MSDS Coordinator	Revision number Effective Date	13/03/08
	Approved by	Managing Director	Page	1 of 4
	Rev. 1.1	Issue date: 13/03/2008	Review Due: 13/02/2013	

## BIOCANE® GRANULES

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name</b>	BioCane® Granules Biological Insecticide		
<b>Product Code</b>	AS/RBBCN/CN:K100		
<b>Other Names</b>	-		
<b>Product Use</b>	Biological control of Greyback Canegrub		
<b>Manufacturer Name</b>	Becker Underwood Pty Ltd		
<b>Address</b>	RMB 1084 Pacific Highway Somersby NSW 2250		
<b>Telephone Number</b>	1800 558 399 (Toll Free)	+61 2 4340 2246 (Outside Australia)	
<b>Emergency Telephone</b>	1800 033 111 (Australia)	0800 734 607 (New Zealand)	

### 2. HAZARDS IDENTIFICATION

**NON DANGEROUS GOODS.** Not considered Hazardous according to the criteria of Worksafe Australia.

#### Dangerous Goods Class

**& Subsidiary Risk** Not applicable

**Hazchem Code** Not applicable

**Hazard Class** Not applicable

**Risk Phrases**  
 R36 – Irritating to eyes  
 R37 – Irritating to respiratory system  
 R42 – May cause sensitization by inhalation  
 R43 – May cause sensitization by skin contact

#### Safety Phrases

S02 – Keep out of reach of children  
 S03/08 – Keep in a cool, dry place  
 S22 – Do not breathe dust  
 S24/25 – Avoid contact with skin and eyes  
 S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient (common name)	CAS Number	Proportion (by weight)
<i>Metarhizium anisopliae</i> isolate FI-1045	-	10%
Inert granular carrier	-	90%

### 4. FIRST AID MEASURES

<b>Inhalation</b>	If difficulty in breathing occurs, move affected person to fresh air. Loosen clothing to ease breathing. Seek immediate medical attention.
<b>Ingestion</b>	Not harmful if swallowed.
<b>Skin</b>	Repeated exposure may cause allergic disorders. Wash affected area with soap and water. Remove contaminated clothing. If irritation develops seek medical attention. Remove and wash contaminated clothing before reuse.
<b>Eyes</b>	Avoid contact with eyes. May irritate the eyes. Flush eyes with flowing water for at least 15 minutes. Seek medical attention.

## 5. FIRE FIGHTING MEASURES

	For major fires call the Fire Brigade. Ensure that an escape path is available from any fire.
<b>Suitable Extinguishing Media</b>	Foam, alcohol foam, CO <sub>2</sub> , dry chemical, water fog
<b>Hazardous Combustion Products</b>	Burning will not evolve noxious fumes.
<b>Firefighting Equipment</b>	Fire fighters should wear butyl rubber boots, gloves and body suit and a self-contained breathing apparatus.
<b>Unusual Fire or Explosion Hazards</b>	Not a fire or explosion hazard when stored under normal conditions.
<b>Hazchem Code</b>	Not applicable

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spills</b>	Wear elbow length rubber gloves and half face piece respirator. Collect and put back into containers.
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## 7. HANDLING AND STORAGE

<b>Handling</b>	Exercise normal care in handling.
<b>Storage</b>	Store in the closed original container in a dry area, within a temperature range of 5-10°C.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Exposure Standards</b>	None allocated
<b>Engineering Controls</b>	None
<b>Respiratory Protection</b>	Wear a half face piece respirator.
<b>Eye Protection</b>	Chemical goggles.
<b>Skin Protection</b>	Elbow length rubber gloves, overalls, apron, boots are necessary to prevent skin contact.
<b>Hygienic Practices</b>	Open wounds or skin surface disruptions should be covered with a chemical resistant patch to minimize absorption risks. Clean clothing should be worn daily to avoid possible long-term build up of the product leading to chronic overexposure. Safety shower and emergency eye wash must be readily available within work area.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Green granule
<b>Odour</b>	Musty odour
<b>Solubility in water</b>	Insoluble
<b>Boiling Point / Range</b>	Not applicable
<b>Evaporation Rate</b>	No information available
<b>Vapour Density (Air = 1)</b>	No information available
<b>Specific Gravity (H<sub>2</sub>O=1)</b>	0.675 ± 0.075
<b>Flash Point</b>	Not applicable
<b>Flammable Limit – Lower</b>	Not applicable
<b>Flammable Limit – Upper</b>	Not applicable

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable
<b>Incompatible Materials</b>	Long term storage in direct contact with reactive metals such as aluminum, zinc, copper, nickel and magnesium. Other materials to avoid include strong oxidizing agents, disinfectants, fungicides

<b>Hazardous Decomposition Products</b>	and biocides. When involved in a fire, burning may evolve noxious fumes which may include carbon monoxide, carbon dioxide, nitrous oxides, oxides of sulphur, or other toxic compounds depending on the chemical composition and combustion conditions.
<b>Hazardous Polymerization Conditions to Avoid</b>	Will not occur. Extremes in temperature. High humidity. Microorganisms denature $\geq 50^{\circ}\text{C}$ .

## 11. TOXICOLOGICAL INFORMATION

<b>Routes of Exposure</b>	Inhalation, eye and skin
<b>Health effects from likely routes of exposure</b>	Inhalation: Prolonged inhalation may lead to respiratory tract irritation. Eye: Prolonged or repeated exposure may cause mechanical irritation. Skin: Prolonged or repeated exposure may cause irritation, redness and inflammation.
<b>Effects of Overexposure</b>	Long term exposure may cause mechanical irritation of the eyes as well as skin and respiratory tract irritation.
<b>Existing Conditions Aggravated by Exposure</b>	May provoke asthmatic response in persons with asthma who are sensitive to airway irritants.
<b>Carcinogenicity</b>	No information available.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	$\text{LD}_{50} > 2\text{g/kg}$ in rats
<b>Mobility</b>	No information available

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal methods and containers</b>	Dispose according to applicable local and government regulations. Dispose of in a local authority landfill. Dispose of empty packaging by wrapping and placing in the garbage disposal system. Do not contaminate streams, rivers or waterways.
<b>Special precautions for landfill or incineration</b>	Please consult your waste management authority for more information

## 14. TRANSPORT INFORMATION

Not classified as a dangerous good according to the Australian Code for the Transport of Dangerous goods by road or rail.

<b>UN Number</b>	Not applicable
<b>Proper Shipping Name</b>	Not applicable
<b>Dangerous Goods Class</b>	Not applicable
<b>Hazchem Code</b>	Not applicable
<b>Packing Group</b>	Not applicable
<b>Special Precautions</b>	Not applicable

## 15. REGULATORY INFORMATION

Not applicable.

## 16. OTHER INFORMATION

<b>Last Revision of MSDS</b>	Rev 1.1 (13/03/2008)
<b>Prepared by</b>	Becker Underwood MSDS Coordinator

**Abbreviations Used**

IARC: International Agency for Research on Cancer  
HSNO: Hazardous Substances and New Organisms  
NTP: National Toxicology Program (U.S.)  
OSHA: Occupational Safety and Health Administration (U.S.)  
STEL: Short term exposure limit  
TWA: Time weighted average

**Emergency Contacts**

<b>Becker Underwood Pty Ltd (Australia)</b>	<b>1800 558 399</b>
<b>Becker Underwood Pty Ltd (Australia)</b>	<b>+61 2 4340 2246</b>
<b>Becker Underwood Pty Ltd (New Zealand)</b>	<b>0800 232 537</b>
<b>24 Hour Emergency Response Number (Australia)</b>	<b>1800 033 111</b>
<b>24 Hour Emergency Response Number (New Zealand)</b>	<b>0800 734 607</b>
<b>Police and Fire Brigade (Australia)</b>	<b>000</b>
<b>Poisons Information Centre (Australia)</b>	<b>13 11 26</b>
<b>Poisons &amp; Hazardous Chemicals Information Centre (New Zealand)</b>	<b>+64 (0)3 4747 000</b>

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Please read instructions / label before using product.