

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Ringer
Approved Use: Worm cast suppressant
Supplier: Barclay Chemicals Manufacturing Ltd.,
 Damastown Way
 Damastown Industrial Park
 Mulhuddart
 Dublin 15
 Ireland.
Telephone No: 00-353-1-8112900
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Issued By: Barclay Chemicals Ltd.

EMERGENCY TELEPHONE NUMBER: 00-353-1-8112900 (9am to 5pm)
00-353-863857769 (5pm to 9am)

2. COMPOSITION/INFORMATION ON INGREDIENTS

No.	Name
1.	Carbendazim

No.	CAS No.	EC No.	R Phrases	Concentration	Classification
1.	010605-21-7	234-232-0	R68,R50/53	500 g/l	N, Tx

Legend: Tx = Very Toxic, C = Corrosive, Xn = Harmful, Xi = Irritant, Ik = No Classification Required,
 E = Explosive, O = Oxidising, Fx = Extremely Flammable, F = Very Flammable,
 Fo = Flammable, N = Dang. To the Environment, M = Genotoxic, A = Sensitizing, K = Carcinogenic,
 R = Causes birth defects, H = skin absorption

3. HAZARDS IDENTIFICATION

Very toxic to aquatic organisms, may cause long term effects in the aquatic environment.
 Possible risk of irreversible effects.
 May cause heritable genetic damage.
 Dangerous for the environment.
 May impair fertility.
 May cause harm to the unborn child.

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. No specific intervention is indicated, as the compound is not likely to be hazardous by inhalation. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician if necessary.

Skin Contact: Wash skin with soap and clean water thoroughly for 15 minutes. Wash contaminated clothing before reuse. This product may cause a temporary allergic skin reaction in a few susceptible persons. This condition should be treated as an allergic dermatitis. There is no evidence of after effects or permanent injury.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. If irritation develops convey to a hospital Accident/Emergency Department.

Ingestion: Do not induce vomiting. Do not give emetics. Wash out mouth with clean water. Convey patient to a hospital Accident/Emergency Department.

Medical Information: **Note to Doctor:** For ingestion of small quantities activated charcoal as an absorbent at a dosage of 30g in 100ml water may be used. Initial treatment should be symptomatic and supportive.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Water spray.
Carbon dioxide.
Dry chemical powder.
Foam.

Specific fighting measures: Evacuate personnel to a safe area. Keep personnel away from and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Use water spray. Runoff from fire control may be a pollution hazard. Cool tank/container with water spray.

Special Hazards: Will not burn but dangerous fumes may be evolved

Protective Equipment: Self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Precautions: Prevent from entering watercourses or drains. Inform local water plc if spillage enters drains and the Environmental Agency (England & Wales), the Scottish Environmental Protection Agency (Scotland) or the Environmental and Heritage service (Northern Ireland) if the product enters surface or ground waters. Keep people and animals away.

Protective Equipment Overalls, impervious gloves, rubber boots, face shield or goggles.
Containment: Contain spillages immediately with sufficient absorbent material to absorb all liquid. Sweep into suitable



Containment:

container and store in a safe place until disposal.

Contain spillages immediately with sufficient absorbent material to absorb all liquid. Sweep into suitable container and store

Liquid in a safe place until disposal

Disposal:

Dispose of contaminated materials as advised in the MAFF/HSE "Pesticides: Code of Practice for the Safe Use of Pesticides on Farms and Holdings".

7. HANDLING AND STORAGE

Handling:

Handling: Avoid breathing vapours or mist. Avoid breathing dust. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Storage:

Store in a secure, cool, dry, well-ventilated place away from food, drink and animal feeding stuffs. Keep container tightly closed. Do not allow material to become wet during storage. Provide storage with automatic extinguishing system. Do not store or consume food, drink or tobacco in areas where they may become contaminated

with this material. This product should be segregated from flammable gases and flammable liquids by at least 10 ft. during warehouse storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standard:

None quoted.

Precautions:

Wear suitable protective clothing (coveralls) suitable protective gloves and face protection (face shield) when handling the concentrate. Wear suitable protective clothing (coveralls) when applying by vehicle mounted equipment. Wear suitable protective clothing (coveralls), suitable protective gloves, rubber boots and face protection (face shield) when handling contaminated surfaces or applying by hand held equipment. Wash hands before meals and after work. Harmful to fish or other aquatic life. Do not contaminate surface waters or ditches with chemical or used **container**. Keep in original container, tightly closed in a safe place. Wash out container thoroughly, empty washings into spray tank and dispose of safely.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Greyish/white, almost odourless, viscous, homogenous liquid suspension
Solubility in water:	Miscible
Decomposition Temperature:	Carbendazim begins to visibly decompose at 218°C
Flash Point:	Non-flammable
pH	6-8

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal temperatures and storage conditions. Stable for at least two years below 50°C. Slowly decomposed in alkaline solution.
Conditions to Avoid:	Extreme temperatures
Materials to Avoid:	None reasonably foreseeable
Polymerisation:	Polymerisation will not occur

11. TOXICOLOGICAL INFORMATION

Oral LD50:	>2.0 g/kg (rat)
Dermal LD50:	>2.0 g/kg (rat)
Inhalation LC50 (2 hour):	>2150 mg/m ³ (rat)
Skin Irritation:	Non irritant
Skin Sensitisation	Non sensitising
Eye Irritation:	Non irritant

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:	Harmful to fish or other aquatic life. Do not contaminate surface waters or ditches with chemical or used container. Acute effects on aquatic organisms and fishes: EC50 (48-h) for <i>Daphnia magna</i> is 0.19 mg/l. LC50 (96-h) for rainbow trout is 5.5 mg/l.
Avian Toxicity:	The acute oral toxicity of carbendazim 500 g/l SC to bobwhite quail was found to be in excess of 2000 mg/kg.

13. DISPOSAL CONSIDERATIONS

Follow the guidance on the disposal of pesticides as given in the MAFF/HSE "Pesticides: Code of Practice for the Safe Use of Pesticides on Farms and Holdings".

14. TRANSPORT INFORMATION

Special Transport Precautions:	UN 3082, PG III
Road/Rail Classification:	ADR/RID Class: 9 ADR/RID item No.: 11(c) Proper shipping name: Environmentally hazardous substance, liquid, N.O.S. (contains 500 g/litre carbendazim).
Sea Classification:	IMDG Class: 9 Proper shipping name: Environmentally hazardous substance, liquid, N.O.S. (contains 500 g/litre carbendazim). Marine pollutant
Air Classification:	ICAO/IATA Class: 9 Proper shipping name: Environmentally hazardous substance, liquid, N.O.S. (contains 500 g/litre carbendazim). Marine pollutant

15. REGULATORY INFORMATION



T

N

Hazard Symbol : T- Toxic
N- Dangerous for the environment

R- PHRASES:

- R46** - May cause heritable genetic damage
- R50/53** - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- R60** - May impair fertility
- R61** - May cause harm to the unborn child
- R68** - Possible risks of irreversible effects.

S- PHRASES:



- S23** - Do not breath gas/fumes/vapour/spray
- S36/37** - Wear suitable protective clothing and gloves
- S56** - Eliminate the product and its container at a centre for collection for dangerous or special waste.

Refer to the Product Label for full local Regulatory Authority label precautions.

16. OTHER INFORMATION

Revision 0	Date Prepared: 04/10/06	
Revision 1	Date Prepared: 11/12/06	Emergency phone number updated
Revision 2	Date Prepared: 21/01/08	Risk and safety phrases updated
Revision 3	Date Prepared: 15/08/08	Classification updated.

DISCLAIMER

The information in the MSDS relates to this specific material. If the product is used as a component in any other product, this MSDS may not be valid. The information contained was obtained from sources which we believe are reliable. The information is provided without any warranty, expressed or implied, regarding its correctness.

This Material Safety Data Sheet was prepared according to Directive 2001/58/EC.