

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: **Barclay Keeper 500**
Chemical Name: (+/-)-2-ethoxy-2,3-dihydro-3,3-dimethylbenzofuran-5-yl methanesulphonate
Synonyms: Ethofumesate,
Group Name: Benzofuran.
Formula: C₁₃H₁₈O₅S. [RMM = 286.3]
Approved Use: Agricultural/Horticultural Herbicide.
Supplier: Barclay Chemicals Manufacturing Ltd.,
 Damastown Way
 Damastown Industrial Park
 Mulhuddart
 Dublin 15
Telephone No: 00 353 1 811 2900
Fax No: 00 353 1 822 4678
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.	Ethofumesate
2.	Surfactant
3.	Antifreeze
4.	Surfactant
5.	Antifoam
6.	Anti-sedimentation
7.	Water

No.	CAS No.	R Phrases	Concentration	Classification
1.	26225-79-6	R51/53	45.45 % w/w	N
2.	-	-	Classified	IK
3.	-	R36/38	Classified	Xi
4.	-	-	Classified	IK
5.	-	-	Classified	IK
6.	-	R22, R38, R41, R43, R50	Classified	Xn
7.	-	-	Classified	IK

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

Human:

Contains 1,2-benzisothiazolin-3(2H)-on. May produce an allergic reaction.

Environmental:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST-AID MEASURES

General:

Remove to fresh air. Take off all contaminated clothing and shoes immediately. Always seek medical advice in cases of serious personal contamination.

Inhalation:

Practical hazard improbable.

Skin Contact:

Wash with plenty of water, seek medical help if irritation persists

Eye Contact:

Flush eyes for at least 15 minutes. Seek medical help if irritation persists.

Ingestion:

Do not induce vomiting. Seek medical help immediately and show label, container or this datasheet if possible.

Medical Information:

For specialist advice doctors should contact the nearest **Poisons Information Centre**.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Extinguish source of fire using a dry inert chemical, foam or waterspary.

Unsuitable Extinguishing Media:

Do not use a water-jet.

Special Exposure Hazards:

Heating will cause pressure rise with risk of bursting and explosion. Toxic fumes may be evolved. Vapour may be irritating to eyes, skin and respiratory system. Risk of pollution to water systems.

Protective Equipment:

Wear full protective clothing, goggles and respirator.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Wear as appropriate, chemical resistant rubber gloves, coated overall, PVC or rubber wellingtons and goggles

Environmental Precautions:

Particular care should be taken to prevent contamination of water (ditches, drains, ponds etc.). Advise police immediately in case of serious spillage escapes. Do not flush with water.

Methods for Cleaning Up:

Contain spillage as the situation allows. Adsorb with pumice, vermiculite, sand or earth. Collect contaminated material and surrounding soil and place in covered, labelled containers for disposal.



7. HANDLING AND STORAGE

Handling:

Wear suitable protective gloves and clothing when handling the concentrate. Wash hands and exposed skin before meals and after work. Do not breath spray. Wash all concentrate from skin or eyes immediately. Wash out contaminated container thoroughly, empty washings into spray tank and dispose of safely.

Storage:

Store in the original container, tightly closed and in a safe place. Keep at temperatures above 4 °C. Keep away from food, drink and animal foodstuffs. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Precautions:

When using do not eat, drink or smoke.
Wash concentrate from skin or eyes immediately.
Do not breathe spray.
Wash hands and exposed skin before meals and after work.
Keep out of reach of children.
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.
If you feel unwell, seek medical advice. (show the label where possible)

Protective Clothing:

Respiratory Protection: Respirator may be needed only in exceptional circumstances when dealing with the concentrate or spray.
Eye Protection: Goggles may by required when dealing with the concentrate or spray.
Hand Protection: PVC or other plastic material gloves should be used when dealing with the concentrate or spray.
Skin Protection: Lightweight protective clothing should be used to prevent contamination when dealing with the concentrate or spray.

Occupational exposure Limits:

None assigned

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Beige colour, liquid
Odour:	Solvent type smell
PH:	6.7 - 7.3
Boiling Point/Boiling Range:	> 100 °C
Melting Point/Melting Range:	Not applicable
Flash Point:	Non-combustible
Flammability:	Non-combustible
Autoflammability:	Non-combustible
Explosive Properties:	None
Oxidizing Properties:	None
Vapour Pressure:	No information
Relative Density:	1.134 g/ml @ 20°C
Solubility (water and fat):	Miscible in water.

10. STABILITY AND REACTIVITY

Conditions to Avoid:	None, apart from protecting from frost
Materials to Avoid:	None.
Hazardous Decomposition Products:	None in particular.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	Oral Toxicity: LD ₅₀ Rat > 2000 mg/kg. Dermal Toxicity: LD ₅₀ Rat > 2000 mg/kg.
Irritation:	Non irritating to skin or eyes
Sensitization:	Non sensitising

12. ECOLOGICAL INFORMATION

Mobility:	Ethofumesate is weakly/moderately absorbed to soil at only low mobility. It does not leach into groundwater.
Degradability:	Ethofumesate is biologically degraded in soil to transient degradates which are rapidly converted to soil bound residues and mineralised to CO ₂
Accumulation:	Half life ranges from about 87 - 407 days



13. DISPOSAL CONSIDERATIONS

Product and Waste: Bury in approved landfill, or via an approved disposal contractor. Controlled discharge is not desirable. Prevent the product from reaching sewerage since the surfactants are not readily degradable.

Containers: Crush or bury containers, or dispose of via an authorised disposal contractor

14. TRANSPORT INFORMATION

Special Transport Precautions: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE
LIQUID N.O.S. PGIII, Class 9

Road/Rail Classification: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE
LIQUID N.O.S. PGIII, Class 9

IMDG Classification: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE
LIQUID N.O.S. PGIII, Class 9

Air Classification: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE
LIQUID N.O.S. PGIII, Class 9

15. REGULATORY INFORMATION

Contains Ethofumesate 500 /l,

N - Dangerous to the environment.

RISK PHRASES

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES

S 2 - Keep out of reach of children.
S13 - Keep away from food, drink and animal feeding stuffs.
S20 - When using do not eat , drink or smoke.
S23 - Do not breathe spray.
S36 - Wear suitable protective clothing.
S56 - Dispose of this material and its container to hazardous or special waste collection point.

16. OTHER INFORMATION



Revision 0 Date Prepared: 21/06/06
Revision 1 Date Prepared 23/08/06 CAS reference updated.
Revision 2 Date Prepared 11/12/06 Emergency phone number 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.