

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Trade Name:** **Barclay Treble**

**Chemical Name:** 1. 1-methylheptyl [(4-anubi-3,5-dichloro-6-fluro-2-pyridinyl)oxy] acetate (CA)  
2. 2,6-dibromo-4-cyanophenyl octanoate (IUPAC)  
3. 4-cyano-2,6-di-iodophenyl octanoate (IUPAC)

**Synonyms:** Fluroxypyr 1-methylheptyl ester  
Bromoxynil octanoate  
Ioxynil octanoate

**Formula:** 1. C<sub>15</sub>H<sub>21</sub>Cl<sub>2</sub>FN<sub>2</sub>O<sub>3</sub>  
2. C<sub>15</sub>H<sub>17</sub>Br<sub>2</sub>NO<sub>2</sub>  
3. C<sub>15</sub>H<sub>17</sub>I<sub>2</sub>NO<sub>2</sub>

**Approved Use:** Agricultural/Horticultural Herbicide

**Supplier:** Barclay Chemicals Manufacturing Ltd.,  
Damastown Way  
Damastown Industrial Park  
Mulhuddart  
Dublin 15  
Ireland

**Telephone No:** 00-353-1-811 2900

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**Issued By:** Barclay Chemicals Ltd.

**EMERGENCY TELEPHONE NUMBER: 00-353-1-811 2900**

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

No.	Name				
1.	Fluroxypyr 1-methylheptyl ester				
2.	Bromoxynil octanoate				
3.	Ioxynil octanoate				
4.	Solvents plus inert ingredients				
No.	CAS No.	EINECS	R Phrases	Concentration	Classification
1.	081406-37-3	279-752-9	R52/53	129g/l	N
2.	001689-99-2	216-885-3	R25, R63	146g/l	T
3.	003861-47-0	223-375-4	R21, R25, R50/53,R63	134g/l	T, N
4.	-			Classified	
<b>Legend:</b> 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

<b>Human:</b>	Flammable. Harmful if swallowed. May cause lung damage if swallowed. Irritating to eyes.
<b>Environmental:</b>	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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### 4. FIRST-AID MEASURES

<b>General:</b>	If patient is unconscious or is having convulsions, do not give fluids or induce vomiting. Move patient to fresh air and remove all heavily contaminated clothing. In cases of serious personal contamination, always seek medical advice
<b>Inhalation:</b>	Move to fresh air. Seek medical advice.
<b>Skin Contact:</b>	Remove contaminated clothing immediately. Wash underlying skin with soap and plenty of water. If skin irritation persists, consult a doctor.
<b>Eye Contact:</b>	Rinse immediately with plenty of water for at least 15 minutes. Seek medical attention.
<b>Ingestion:</b>	Do not induce vomiting. Seek medical attention immediately and/or transport to emergency facility immediately. The decision of whether to induce vomiting or not should be made by a doctor. Show product label or this data sheet.
<b>Medical Information:</b>	For specialist advice doctors should contact the nearest <b>Poisons Information Centre</b> .

There is no specific antidote for this product. The possible symptoms of ingestion may include nausea, diarrhoea, and vomiting. Bromoxynil and/or ioxynil uncouple oxidative phosphorylation – these symptoms of poisoning may include increased temperature and raised respiratory rate, sweating and excitability.

If lavage is performed, endotracheal and/or oesophageal control is suggested. When considering emptying the stomach Danger from lung aspiration must be weighed against toxicity. Treatment based on medical judgement in response to symptoms of patient.

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### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media:</b>	Water fog or fine spray, CO <sub>2</sub> , foam or dry chemical.
<b>Special Exposure Hazards:</b>	Smoke may contain the original material during a fire, in addition to unidentified toxic and/or irritating compounds. Petroleum derivative solvent contained – will burn. Due to pressure build-up when subjected to excessive heat or intense fire closed containers may explode. Keep containers cool by spraying with water. Prevent entry into water or drainage systems and contain runoff.
<b>Protective Equipment:</b>	Use a self-contained breathing apparatus. Full protective clothing should be worn.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Appropriate safety clothing and eye/face protection should be worn (see Section 8).
<b>Environmental Precautions:</b>	Do not wash into sewers or any body of water. Advise local authority if spillage enters drains or Environmental Agency/Scottish Environmental Protection Agency if spillage enters surface or ground waters.
<b>Methods for Cleaning Up:</b>	Contain spillage as the situation allows. Absorb with sand or other non-combustible material and place into containers for disposal. For large spills, barricade the area and consult the manufacturer. Contact emergency number, if further assistance is required..
<b>Additional Information:</b>	Ensure all ignition sources are eliminated.

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## 7. HANDLING AND STORAGE

<b>Handling:</b>	Good personal hygiene should be used. Do not eat or store food in the work area. Wash hands and exposed skin before eating, drinking, smoking and after work. Avoid eye contact.
<b>Storage:</b>	Store product in compliance with local regulations. Store in the original container, in a cool, dry, well-ventilated place. Protect from excesses of heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Precautions:</b>	<p>Wear Suitable protective gloves and face protection (faceshield) when handling the concentrate.</p> <p>When using do not eat, drink or smoke.</p> <p>Wash concentrate from skin or eyes immediately.</p> <p>Avoid all contact by mouth.</p> <p>Do not breathe spray.</p> <p>Wash hands and exposed skin before eating, drinking or smoking and after work.</p> <p>Do not harvest crops for animal consumption for at least six weeks after last application.</p> <p>Keep away from food, drink and animal feeding stuffs.</p> <p>Keep out of reach of children.</p> <p>Keep livestock out of treated areas for at least six weeks following treatment.</p> <p>Harmful to bees. Do not apply to crops in flower or to those in which bees are actively foraging. Do not apply when flowering weeds are present.</p> <p>Toxic to aquatic organisms. Do not contaminate surface waters or ditches with chemical or used container.</p> <p>Keep in original container, tightly closed, in a safe place.</p> <p>Wash out container thoroughly, empty washings into spray tank, and dispose of safely.</p> <p>Do not re-use container for any purpose.</p> <p>If you feel unwell, seek medical advice and show label where possible.</p> <p>If swallowed, do not induce vomiting, seek medical advice immediately and show label or container..</p>
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**Protective Clothing:**

**Respiratory Protection:** In misty atmospheres, use an approved positive-pressure self-contained breathing apparatus. For most conditions, no respiratory protection should be needed.

**Hand/Skin Protection:** Clean, long-sleeved, body-covering clothing should be worn. For prolonged or frequently repeated contact, gloves, impervious to this material should be used

**Eye/Face Protection:** Chemical goggles should be used.

**Occupational Exposure Limits:**

None established.

Ioxynil Octanoate: Suppliers recommendation is 0.1 mg/m<sup>3</sup> (skin)  
Supplier recommendation for solvent is 50 ppm.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:**

Dark brown liquid.

**Odour:**

Strong solvent odour.

**Flash Point:**

51°C (PMCC).

**Flammability:**

Flammable.

**Explosive Properties:**

When exposed to excessive heat or intense fire, closed containers may explode due to pressure build-up.

**Relative Vapour Density (air=1):**

1

**Relative Density (water-1):**

1.08 approx (20°C)

**Solubility (water):**

Emulsifiable.

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## 10. STABILITY AND REACTIVITY

**Chemical Stability:**

Stable under normal storage conditions.

**Conditions to Avoid:**

Avoid high temperatures (at or near flash point), sparks, open flames and direct sunlight. When exposed to excessive heat or intense fire, closed containers may explode due to pressure build-up.

**Materials to Avoid:**

Strong basic, acidic or oxidising materials.

**Hazardous Decomposition Products:**

There are no hazardous decomposition products classified under normal conditions of storage and use.

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## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity:**

Based on data for similar formulation.

**Ingestion:** Single dose oral toxicity is considered to be moderate. Oral LD50 for rats is >1000mg/kg, <2000mg/kg.

**Skin Contact:** Dermal LD50 for rats is >2000mg/kg. A single prolonged exposure is not likely to result in the material being absorbed in harmful amounts through the skin.

**Inhalation:** No adverse effects are anticipated due to exposure incidental to proper handling.

**Irritation:**

Moderately irritating to the eyes.

Non-irritating to skin.

**12. ECOLOGICAL INFORMATION**

<b>Mobility:</b>	<u>Fluroxypyr 1-methylheptyl ester:</u> No evidence of any significant leaching. Unlikely to contaminate ground water, .
<b>Degradability:</b>	<u>Fluroxypyr 1-methylheptyl ester:</u> Rapidly hydrolysed to the parent acid, which undergoes further degradation, the principle route of degradation is microbial and readily occurs.
<b>Accumulation:</b>	Half-life of the parent acid in soil and water is dependent on conditions (approximately 14-56 days).
<b>Aquatic Toxicity:</b>	<u>Fluroxypyr 1-methylheptyl ester:</u> Acute LC50 for fish is < maximum saturation level. Acute LC50 for daphnids < maximum saturation level. <u>Bromoxynil Octanoate:</u> Highly toxic to fish on an acute basis (0.1mg/L <LC50 <1.0mg/L) <u>Ioxynil Octanoate:</u> Moderately toxic to fish on an acute basis (1mg/L <LC50 <10mg/L).
<b>Avian Toxicity:</b>	<u>Fluroxypyr 1-methylheptyl ester:</u> On an acute basis, practically non-toxic to birds (LD50 >2000mg/kg). <u>Bromoxynil Octanoate:</u> On an acute basis, practically non-toxic to birds (LD50 >2000mg/kg).

**13. DISPOSAL CONSIDERATIONS**

<b>Product and Waste:</b>	Harmful to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Washing must be disposed of safely and in accordance with appropriate regulations.
<b>Containers:</b>	Container must be disposed of safely and in accordance with appropriate regulations. Dispose of via an authorised disposal contractor. Do not re-use container for any purpose.

**14. TRANSPORT INFORMATION**

<b>Special Transport Precautions:</b>	None. Sample shipment not allowed by mail.
<b>Road/Rail Classification:</b>	Proper Shipping Name: 1993, Flammable Liquid, N.O.S. (Contains Petroleum Distillate) UN Number: 1993 Truck - ADR Loaded : 3-31c Rail – ADR Loaded: 3-31c
<b>Sea Classification:</b>	Proper Shipping Name: Flammable Liquid, N.O.S. (Contains Petroleum Distillate, Bromoxynil-Octanoate 13.5% w/w and Ioxynil Octanoate 12.4% w/w) UN Number: 1993 IMO/IMDG Class: 3.3 Packing Group: III EMS: 3-07 MFAG: 311
<b>Air Classification:</b>	Proper Shipping Name: Flammable Liquid, N.O.S. (Contains Petroleum Distillate) UN Number: 1993 ICAO/IATA Class: 3 Packing Group: III

## 15. REGULATORY INFORMATION

### Hazard Symbol

- Xn** - Harmful  
**N** - Dangerous to the environment.

### R-Phrases

- R10** - Flammable.  
**R21/22** - Harmful in contact with skin and if swallowed.  
**R22** - Harmful if swallowed.  
**R36** - Irritating to eyes.  
**R51/53** - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
**R63** - Possible risk of harm to the unborn child.

### S-Phrases

- S2** - Keep out of reach of children.  
**S13** - Keep away from food, drink and animal feeding stuffs.  
**S20/21** - When using, do not eat, drink or smoke.  
**S25** - Avoid contact with eyes.  
**S46** - If swallowed, seek medical advice immediately and show this container or label.

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## 16. OTHER INFORMATION

- Version: 0      Date prepared: 13/04/01  
Version: 1      Date prepared: 25/06/02  
Version: 2      Date prepared: 16/12/03 Update to comply with 2001/58/EC, change telephone no  
Version: 3      Date prepared: 29/07/04 Supplier detail correction

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