

SAFETY DATA SHEET

ALPHA BRIOTRIL 19/19

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : ALPHA BRIOTRIL 19/19
Chemical name of active ingredient(s) : Bromoxynil octanoate: 2,6-Dibromo-4-cyanophenyl octanoate
 Ioxynil octanoate: 4-Cyano-2,6-diiodophenyl octanoate
Manufacturer : Agan Chemical Manufacturers Ltd.
 Northern Industrial Zone,
 P.O.Box 262, Ashdod, Israel.
Supplier : Makhteshim-Agan (UK) Ltd.
 Unit 16, Thatcham Business Village
 Colthrop Way, Thatcham
 Berkshire RG19 9LW, U.K.
Emergency telephone number : National Chemical Emergency Centre, Tel:01865 407333.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation : Preparation

Information on hazardous ingredients *

Common name	CAS No.	%	EC Number	Symbol	R-Phrases
Bromoxynil octanoate	1689-99-2	16 - 17	216-885-3	Xn	R21/22-63
Ioxynil octanoate	3861-47-0	16 - 17	223-375-4	Xn	R22-63
Aromatic C-9 solvent (Naphta)	64742-95-6	59 - 62	265-199-0	Xn	R10-20-36/37/38

* **Occupational Exposure Limit(s), if available, are listed in section 8**

3. HAZARDS IDENTIFICATION

Most important hazards : Flammable. Harmful if swallowed. Possible risk of harm to the unborn child.

4. FIRST-AID MEASURES

Effects and symptoms

Inhalation : Vapours (solvent): headache, dizziness and nausea.
Ingestion : Harmful if swallowed.
Eye contact : Irritating to eyes.

First-aid measures

: Remove victim from area of exposure. Wash off remaining material with plenty of water.
Inhalation : Remove victim to fresh air. If breathing is difficult: artificial respiration. Get medical attention.
Ingestion : Wash out mouth with plenty of water. Get medical attention. Never give anything by mouth to an unconscious person.
Skin contact : Remove contaminated clothing. Wash away remainder with water and soap.
Eye contact : Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention.

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Notes to a physician : There is no specific antidote. Treat symptomatically and give supportive therapy.
Protection of first-aiders : Use appropriate protection (see section 8).

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable : Dry chemical, water spray, foam, carbon dioxide.
Unusual fire/explosion hazards : Flashback may occur along vapour trail.
Hazardous thermal (de)composition products : Bromine, nitrogen oxides and cyanide.
Protection of fire-fighters : Self-contained breathing apparatus and total protection required in enclosed areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear suitable protective clothing.
Environmental precautions : Do not discharge into drains or the environment.
Methods for cleaning up : Keep away from: open flame, sparks and heat. Absorb remainder in sand or other inert material. Dispose of in an authorized waste collecting point.

7. HANDLING AND STORAGE

Handling : Avoid contact with skin and eyes. Ventilation required. Keep away from: sparks, open flame and direct sunlight.
Storage : Keep only in the original container. Keep in a cool, dry, well ventilated place away from direct sunlight.
Packaging materials
Suitable : Fluorinated or coextruded polyethylene containers. Resin-lined metal drums.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures : Ventilation required.
Hygiene measures : When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.
Occupational Exposure Limits

Common name	OEL (United Kingdom)
Bromoxynil octanoate	Not established
loxynil octanoate	Not established
Aromatic C-9 solvent (Naphta)	TLV (USA): 25 ppm

Personal protective equipment
Respiratory system : Respiratory protection is not required if good ventilation is maintained.
Skin and body : Wear suitable protective clothing. Chemical resistant boots.
Hands : Chemical resistant gloves.
Eyes : Safety goggles or face shield.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Emulsifiable concentrate
Colour	: Brown
Odour	: Aromatic (solvent)
Boiling point	: 155-181°C (Naphta)
Density	: 1.15 ± 0.01 @ 20°C
Vapour pressure	: 0.2 mPa (Bromoxynil octanoate) 3.7 mPa @ 105°C (Ioxynil octanoate)
Solubility in water	: 3 ppm (Bromoxynil octanoate) < 1 ppm (Ioxynil octanoate)
Octanol/water partition coefficient	: log = 6 (Bromoxynil octanoate) log = 6.12 (Ioxynil octanoate)
Flash point	: 45°C
Flammability	: Flammable
Explosion properties	: Vapours - May form explosive mixture with air (Naphta).
Lower explosion limit	: 0.8 volume %
Upper explosion limit	: 7 volume %
Oxidation properties	: Not oxidizing

10. STABILITY AND REACTIVITY

Stability	: Not subject to polymerization.
Materials to avoid	: Oxidizing agents, acids and alkali.
Hazardous reactions	: None
Hazardous decomposition products	: Bromine, nitrogen oxides and cyanide.

11. TOXICOLOGICAL INFORMATION

Preparation

Acute toxicity - Oral	: LD ₅₀ (rat) = 472 mg/kg
Acute toxicity - Dermal	: LD ₅₀ (rat) > 1,000 mg/kg
Acute toxicity - Inhalation	: LC ₅₀ (rat) = 2.15 mg/L (4 hours)
Skin irritation	: Moderately irritating (rabbit).
Eye irritation	: Severely irritating (rabbit).
<u>Common name</u>	: Bromoxynil octanoate
Chronic toxicity	: NOEL (rat): 100 ppm.
Carcinogenicity	: EPA : Not classified EU : Not classified IARC : Not classified
Mutagenicity	: Not mutagenic
Other information	: Teratogenicity - NOEL (rat): 10-50 mg/kg/day (Maternal and Fetal).
<u>Common name</u>	: Ioxynil octanoate
Chronic toxicity	: NOEL (rat): 80 ppm (Ioxynil (ISO))
Carcinogenicity	: EPA : Not classified EU : Not classified IARC : Not classified

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Mutagenicity : Not mutagenic (loxynil (ISO))
Reproduction toxicity : No effects or symptoms occur @ 100 ppm (mice).
Other information : Teratogenicity - NOEL (rat): 12 mg/kg/day (Maternal) ; 4 mg/kg/day (Fetal).

12. ECOLOGICAL INFORMATION

Preparation

Common name : **Bromoxynil octanoate**
Mobility : **Soil**
 Bromoxynil octanoate - Not mobile.
 Bromoxynil (ISO) - Mobile.

Persistence/degradability : **Soil**
 The product is not persistent.
 Half-life time (t_{1/2}) - 1 week.
 The product is biodegradable.

Ecotoxicity : **Fish**
 LC₅₀ (96 hours) rainbow trout = 0.1 mg/L
 bluegill sunfish = 0.09 mg/L

Daphnia magna
 EC₅₀ (48 hours) = 0.11 mg/L

Birds
 Mallard duck LD₅₀ = 2,350 mg/kg
 Bobwhite quail LC₅₀ (5 day feeding) = 7,178 ppm

Bees
 Contact LD₅₀ (48 hours) = 150 µg/bee
 Oral LD₅₀ (48 hours) = 4 µg/bee

Very toxic to aquatic organisms. Low toxicity: birds. Non toxic: bees.

Common name : **loxynil octanoate**
Mobility : Soil - Not mobile.
Persistence/degradability : **Soil**
 The product is not persistent.
 Half-life time (t_{1/2}): ~ 10 days.
 Degradation is primarily via: hydrolysis and microorganisms.

Ecotoxicity : **Fish**
 LC₅₀ (96 hours) rainbow trout = 0.64 ppm

Daphnia magna
 EC₅₀ (48 hours) = 7.7 mg/L

Algae (scenedesmus subspicatus)
 EC₅₀ (86 hours) = 24 mg/L

Birds
 Pheasants LD₅₀ = 1,000 mg/kg
 Mallard duck LD₅₀ > 1,200 mg/kg

Bees
 Contact LD₅₀ (48 hours) > 400 µg/bee

Very toxic to aquatic organisms. Low toxicity: birds. Non toxic: bees.

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13. DISPOSAL CONSIDERATIONS

Methods of disposal : Dispose of in a pesticide approved landfill, or in a chemical incinerator equipped with scrubbers, In accordance with national and regional regulations.

14. TRANSPORT INFORMATION

International transport regulations

UN number : 1268

Land - Road/Railway

Proper shipping name : Petroleum distillate, N.O.S.
ADR/RID Class : 3, Label 3
ADR/RID Item number : 31c
Packing group : III
Hazard Identification Number : 30

Inland waterways

Proper shipping name : Petroleum distillate, N.O.S.
ADNR Class : 3, 31c, Label 3

Sea

Proper shipping name : Petroleum distillate, N.O.S.
IMDG Class : 3.3, Label 3 + MARINE POLLUTANT
IMDG Page number : 3375
Packing group : III
Medical First Aid Guide (MFAG) : 311
Emergency Schedules (EmS) : 3-07

Air

Proper shipping name : Petroleum distillate, N.O.S.
UN/ID Number : 1268
IATA-DGR Class : 3

National transport regulations

United Kingdom : No additional national transport regulations are known to the supplier

15. REGULATORY INFORMATION

Classification : The following classification for labeling has been made for this product in United Kingdom.
Hazard symbol(s) : Xn



HARMFUL

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Risk phrases : R10: Flammable.
R22: Harmful if swallowed.
R36: Irritating to eyes.

Safety phrases : S02: Keep out of the reach of children.
S07: Keep container tightly closed.
S13: Keep away from food, drink and animal feedingstuffs.
S20/21: When using do not eat, drink or smoke.
S23D: Do not breathe spray.
S25: Avoid contact with eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28: After contact with skin, wash immediately with plenty of water.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S49: Keep only in the original container.
S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

United Kingdom : No additional national regulations are known to the supplier

16. OTHER INFORMATION

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

HISTORY

Date of printing : 18/01/2000
Date previous issue : 11/11/1996
Date of issue : 11/11/1996
Version : 001.00.00

The version-number is made up of three parts; part 1 is a general information code, part 2 a country-specific code and part 3 a language-specific code

Prepared by : Ahmed Taya/Jennifer Ashtamkar.