

SAFETY DATA SHEET

ALPHA BROMOLIN 225 EC

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

Product name : ALPHA BROMOLIN 225 EC
Chemical name of active ingredient(s) : 2,6-Dibromo-4-cyanophenyl 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	29 - 35	216-885-3	Xn,N	R21/22-50/53-63
Alkylbenzene sulfonate	-	2 - 3	-	Xi, N	R36/38-51/53
Aromatic C-9 solvent (Naphta)	64742-95-6	40 - 45	265-199-0	Xn	R65

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

3. HAZARDS IDENTIFICATION

Most important hazards : Flammable. Harmful by inhalation and if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed.

4. FIRST-AID MEASURES

Effects and symptoms

Inhalation : Vapours: headache, dizziness, nausea.
Ingestion : Harmful if swallowed.
Skin contact : May cause sensitization by skin contact.
Eye contact : May be 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.

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- Eye contact** : Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention.
- 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** : Material melts and becomes free-flowing above 45°C.
- Hazardous thermal (de)composition products** : Bromide compound, cyanide and nitrogen oxides.
- 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** : Resin-coated 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** : **Bromoxynil octanoate**
: Not established
- Common name** : **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	: Liquid
Colour	: Brownish
Odour	: Aromatic
Boiling point	: 155-181°C (Naphta)
Density	: 1.025 ± 0.015 g/mL @ 20°C
Vapour pressure	: 0.2 mPa @ 25°C (Bromoxynil octanoate)
Solubility in water	: 3 ppm (Bromoxynil octanoate)
Octanol/water partition coefficient	: log = 5.4 (Bromoxynil octanoate)
pH	: 3 - 5 (CIPAC, MT 75)
Flash point	: 49°C
Flammability	: Flammable
Autoignition temperature	: 450°C (Octaro)
Explosion properties	: Keep away from: Strong oxidizing agents.
Lower explosion limit	: 1 volume % (Octaro)
Upper explosion limit	: 7 volume % (Octaro)
Oxidation properties	: Keep away from: Strong oxidizing agents.

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Preparation

Acute toxicity - Oral	: LD ₅₀ (rat) = 758 mg/kg
Acute toxicity - Dermal	: LD ₅₀ (rabbit) > 4,000 mg/kg
Acute toxicity - Inhalation	: LC ₅₀ (rat) ~ 5 mg/L (4 hours) (maximum attainable concentration).
Skin irritation	: Mildly irritating (rabbit).
Eye irritation	: Slightly irritating (rabbit).
Sensitization	: Non sensitizer (guinea-pig).

<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
Reproduction toxicity	: Repr. Cat. 3
Other information	: Teratogenicity - NOEL (rat): 10-50 mg/kg/day (Maternal and Fetal).

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12. ECOLOGICAL INFORMATION

Preparation

Ecotoxicity : **Fish**
 LC₅₀ (96 hours) rainbow trout (oncorhynchus mykiss) = 0.47 mg/L
Daphnia magna
 EC₅₀ (48 hours) = 0.45 mg/L
Algae (selenastrum capricornutum)
 EC₅₀ (72 hours) = 0.1 - 0.23 mg/L

Very toxic to aquatic organisms.

Common name : **Bromoxynil octanoate**

Mobility : **Soil**
 Bromoxynil octanoate - Low mobility.
 Bromoxynil (ISO) - Low mobility.
 K_{oc} = 639 mL/g
 No risk of underground water contamination.

Persistence/degradability : **Soil**
 The product is not persistent.
 Half-life time (t_{1/2}) = 8 days.
 Degradation is primarily via: hydrolysis and microorganisms.
 The product is readily biodegradable.

Water
 DT₅₀ (water) = 34.1 days (pH 5).
 DT₅₀ (water) = 11.7 days (pH 7).
 DT₅₀ (water) = 1.7 days (pH 9).
 DT₅₀ (water/sediment) < 3 days.

Bioaccumulative potential : BCF = 239

Ecotoxicity : **Fish**
 LC₅₀ (96 hours) rainbow trout (oncorhynchus mykiss) = 0.041 mg/L
 bluegill sunfish (lepomis macrochirus) = 0.061 mg/L
 NOEC (35 days) fathead minnow = 0.0034 mg/L

Daphnia magna
 EC₅₀ (48 hours) = 0.046 mg/L
 NOEC (21 days) = 0.0025 mg/L
Algae (navicula pelliculosa)
 EC₅₀ (120 hours) = 0.043 mg/L

Birds
 Bobwhite quail (anas platyrhynchos) LD₅₀ = 170 mg/kg
 Mallard duck (colinus virginianus) LD₅₀ = 2,350 mg/kg
 Bobwhite quail (anas platyrhynchos) LC₅₀ (5 day feeding) = 1,315 ppm

Bees
 Contact LD₅₀ (48 hours) > 100 µg/bee
 Oral LD₅₀ (48 hours) > 120 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, F1, PG III
Hazard Identification Number : 30

Inland waterways

Proper shipping name : Petroleum distillate, N.O.S.
ADNR Class : 3, F1, PG III

Sea

Proper shipping name : Petroleum distillate, N.O.S.
IMDG Class : 3 + MARINE POLLUTANT
Packing group : III
Emergency Schedules (EmS) : F-E, S-D

Air

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

National transport regulations

No additional national transport regulations are known to the supplier

15. REGULATORY INFORMATION

Classification : This product is provisionally labelled by the supplier in accordance with the suppliers understanding of the EU regulations (Directives 56/548/EEC, 1999/45/EC).

Hazard symbol(s) : Xn, N



HARMFUL



DANGEROUS FOR THE ENVIRONMENT

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Risk phrases : R10: Flammable.
R20/22: Harmful by inhalation and if swallowed.
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63: Possible risk of harm to the unborn child.
R65: Harmful: may cause lung damage if swallowed.

Safety phrases : S02: Keep out of the reach of children.
S13: Keep away from food, drink and animal feedingstuffs.
S20/21: When using do not eat, drink or smoke.
S23D: Do not breathe spray.
S24/25: Avoid contact with skin and eyes.
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).
S60: This material and its container must be disposed of as hazardous waste.
S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

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 : 05/11/2003
Date previous issue : 21/10/2003
Date of issue : 05/11/2003
Version : 003

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

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