

SAFETY DATA SHEET

BROMOTRIL 40 EC

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

Product name : BROMOTRIL 40 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.
Emergency telephone number : +972-8-8515211

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	49 - 54	216-885-3	Xn,N	R21/22-50/53-63
Xylene	1330-20-7	40 - 45	215-535-7	Xn	R10-20/21-38

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

3. HAZARDS IDENTIFICATION

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

4. FIRST-AID MEASURES

Effects and symptoms

Inhalation : Vapours: headache, dizziness, nausea.
Ingestion : nausea, headache, cramps, vomiting.
Skin contact : May cause sensitization by skin contact.
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.

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).

SAFETY DATA SHEET

BROMOTRIL 40 EC

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Emulsion
Colour	: Brown
Odour	: Aromatic
Boiling point	: 155-181°C (Naphta)
Density	: 1.132 ± 0.010 g/mL @ 20°C
Vapour pressure	: 0.2 mPa @ 25°C (Bromoxynil octanoate)
Solubility in water	: 3 ppm @ 25°C (Bromoxynil octanoate)
Octanol/water partition coefficient	: log = 5.4 (Bromoxynil octanoate)
pH	: 3 - 5 CIPAC, MT 75
Flash point	: 45°C (Naphta)
Flammability	: Flammable
Explosion properties	: Naphta (vapours): May form explosive mixture with air.
Lower explosion limit	: 0.8 volume %
Upper explosion limit	: 7 volume %
Oxidation properties	: Keep away from: Strong oxidizing agents.

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Preparation

Acute toxicity - Oral	: LD ₅₀ (rat) = 552 mg/kg
Acute toxicity - Dermal	: LD ₅₀ (rabbit) > 4,000 mg/kg
Acute toxicity - Inhalation	: LC ₅₀ (rat-male) ~ 4.34 mg/L (4 hours)
Skin irritation	: Moderately irritating (rabbit).
Eye irritation	: Moderately 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).

SAFETY DATA SHEET

BROMOTRIL 40 EC

12. ECOLOGICAL INFORMATION

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.

Bioaccumulative potential : **Water**
 DT_{50} (water) = 34.1 days (pH 5).
 DT_{50} (water) = 11.7 days (pH 7).
 DT_{50} (water) = 1.7 days (pH 9).
 DT_{50} (water/sediment) < 3 days.

Ecotoxicity : BCF = 239

: **Fish**
 LC_{50} (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**
 EC_{50} (48 hours) = 0.046 mg/L
 NOEC (21 days) = 0.0025 mg/L

: **Algae** (*navicula pelliculosa*)
 EC_{50} (120 hours) = 0.043 mg/L

: **Birds**
 Bobwhite quail (*anas platyrhynchos*) $LD_{50} = 170$ mg/kg
 Mallard duck (*colinus virginianus*) $LD_{50} = 2,350$ mg/kg
 Bobwhite quail (*anas platyrhynchos*) LC_{50} (5 day feeding) = 1,315 ppm

: **Bees**
 Contact LD_{50} (48 hours) > 100 µg/bee
 Oral LD_{50} (48 hours) > 120 µg/bee

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

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 : 1993

SAFETY DATA SHEET

BROMOTRIL 40 EC

Land - Road/Railway

Proper shipping name : Flammable liquid, N.O.S., Xylenes.
 ADR/RID Class : 3, F1, PG III
 Hazard Identification Number : 30

Inland waterways

Proper shipping name : Flammable liquid, N.O.S., Xylenes.
 ADNR Class : 3, F1, PG III

Sea

Proper shipping name : Flammable liquid, N.O.S., Xylenes, Bromoxynil octanoate.
 IMDG Class : 3 + Marine pollutant
 Packing group : III
 Emergency Schedules (EmS) : F-E, S-E

Air

Proper shipping name : Flammable liquid, N.O.S., Xylenes.
 UN/ID Number : 1993
 IATA-DGR Class : 3, PG III

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 67/548/EEC, 1999/45/EC).

Hazard symbol(s) : Xn, N



HARMFUL



DANGEROUS FOR THE ENVIRONMENT

Risk phrases : R10: Flammable.
 R20/22: Harmful by inhalation and if swallowed.
 R36/38: Irritating to eyes and skin.
 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.

SAFETY DATA SHEET

BROMOTRIL 40 EC

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.
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.
S35: This material and its container must be disposed of in a safe way.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S46: If swallowed, seek medical advice immediately and show this container or label.
S57: Use appropriate containment to avoid environmental contamination.
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 : 09/02/2005
Date previous issue : 09/02/2005
Date of issue : 09/02/2005
Version : 001

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.