

SAFETY DATA SHEET

BROMOXYNIL 500 SC

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

Product name : BROMOXYNIL 500 SC
Chemical name of active ingredient(s) : 3,5-Dibromo-4-hydroxybenzotrile
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 (ISO)	1689-84-5	41 - 45	216-882-7	T+, N	R25-26-43-50/53--63

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

3. HAZARDS IDENTIFICATION

Most important hazards : Harmful by inhalation and if swallowed. Harmful 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

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).

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable : Dry chemical, water spray, foam, carbon dioxide.

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Hazardous thermal (de)composition products : Bromine compounds, 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 : Absorb remainder in sand or other inert material. Dispose of in an authorized waste collecting point.

7. HANDLING AND STORAGE

Handling : Ventilation required.
Storage : Keep only in the original container. Keep in a cool, dry, well ventilated place away from direct sunlight.

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 (ISO)**
: Not established
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : suspension concentrate
Colour : White
Odour : Faint odour
Boiling point : 100°C (Water)
Density : 1.16 ± 0.02 g/mL @ 20°C
Vapour pressure : < 1 mPa @ 20°C (Bromoxynil (ISO))
Solubility in water : 130 mg/L @ 25°C (Bromoxynil (ISO))
Octanol/water partition coefficient : log < 2 (Bromoxynil (ISO))
pH : 3 - 5
: CIPAC, MT 75
Flammability : Not flammable
Explosion properties : Not explosive
Oxidation properties : Not oxidizing

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10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Preparation

Acute toxicity - Oral : LD₅₀ (rat) ~ 500 mg/kg
Acute toxicity - Dermal : LD₅₀ (rat) > 2,000 mg/kg
Acute toxicity - Inhalation : LC₅₀ = 2.36 mg/L @ 4 hour Exposure
Skin irritation : Slightly irritating (rabbit).
Eye irritation : Slightly irritating (rabbit).
Sensitization : Non sensitizer (guinea-pig).

Common name : **Bromoxynil (ISO)**

Chronic toxicity : NOEL (mouse): 10 ppm or 1.3 mg/kg/day (1.5 years).

Carcinogenicity : EPA : Group C
 EU : Not classified
 IARC : Not classified

Mutagenicity : Not mutagenic

Reproduction toxicity : Repr. Cat. 3
 NOEL = 50 ppm or ~ 2 mg/kg/day.
 Retardation of development (bodyweight gain and eye opening) at parental toxic dose level.

Other information : Teratogenicity - NOAEL (rat) Oral = 4 mg/kg/day (Developmental)
 NOAEL (rat) Dermal = 10 mg/kg/day (Developmental)
 Increased malformations in rat and rabbit at maternal toxic dose levels, variations and retardation below maternal toxic dose levels.

12. ECOLOGICAL INFORMATION

Preparation

Ecotoxicity : **Fish**
 LC₅₀ (96 hours) rainbow trout = 42.3 mg/L
Daphnia magna
 EC₅₀ (48 hours) = 38.3 mg/L
Algae (selenastrum capricornutum)
 EC₅₀ (72 hours) = 24.7 mg/L
Lemna gibba
 EC₅₀ (7 days) = 21.9 mg/L
 Harmful to aquatic organisms. Not toxic to bees.

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Common name	: Bromoxynil (ISO)
Mobility	: Soil - Mobile. K _{oc} = 108 - 239 mL/g No risk of underground water contamination.
Persistence/degradability	: Soil The product is not persistent. Half-life time (t _{1/2}): < 1 day. Degradation is primarily via: hydrolysis and microorganisms.
Bioaccumulative potential	: Low bioaccumulation potential. K _{ow} logP < 2
Ecotoxicity	: Fish (LC ₅₀ 96 hours) bluegill sunfish (Iepomis macrochirus) = 29.2 mg/L NOEC (21 days) rainbow trout (oncorhynchus mykiss) = 2 mg/L Daphnia magna EC ₅₀ (48 hours) = 12.5 mg/L NOEC (21 days) = 3.1 mg/L Algae (Navicula pelliculosa) EC ₅₀ (72 hours) = 0.12 mg/L Birds Bobwhite quail (colinus virginianus) LD ₅₀ = 217 mg/kg Mallard duck (anas platyrhynchos) LC ₅₀ (5 days) = 1,380 ppm Bees Contact LD ₅₀ (48 hours) = 150 µg/bee Oral LD ₅₀ (48 hours) = 5 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.
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14. TRANSPORT INFORMATION

International transport regulations

UN number : 3082

Land - Road/Railway

Proper shipping name : Environmentally hazardous substance, Liquid, Toxic, N.O.S., Bromoxynil (ISO).

ADR/RID Class : 9, M6, PG III

Hazard Identification : 90

Number

Inland waterways

Proper shipping name : Environmentally hazardous substance, Liquid, Toxic, N.O.S., Bromoxynil (ISO).

ADNR Class : 9

Sea

Proper shipping name : Environmentally hazardous substance, Liquid, Toxic, N.O.S., Bromoxynil (ISO).

IMDG Class : 9 + Marine pollutant

Packing group : III

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Emergency Schedules (EmS) : F-A, S-F

Air

Proper shipping name : Environmentally hazardous substance, Liquid, Toxic, N.O.S., Bromoxynil (ISO).

UN/ID Number : 3082

IATA-DGR Class : 9, PG III

National transport regulations

No additional national transport regulations are known to the supplier

15. REGULATORY INFORMATION

Classification : According to Commission Directives 67/548/EEC, 1999/45/EC.
Hazard symbol(s) : Xn



HARMFUL

Risk phrases : R20/22: Harmful by inhalation and if swallowed.
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63: Possible risk of harm to the unborn child.

Safety phrases : S02: Keep out of the reach of children.
S13: Keep away from food, drink and animal feedingstuffs.
S24/25: Avoid contact with skin and eyes.
S29/35: Do not empty into drains; dispose of this material and its container in a safe way.
S36/37: Wear suitable protective clothing and gloves.
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

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BROMOXYNIL 250 SC

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