

SAFETY DATA SHEET

DIUREX 50 SC

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

Product name : DIUREX 50 SC
Chemical name of active ingredient(s) : 3-(3,4-Dichlorophenyl)-1,1-dimethylurea
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 4LW, 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
Diuron	330-54-1	40 - 45	206-354-4	Xn,N	R22-40-48/22-50/-53
Ethylene Glycol	107-21-1	5 - 6	203-473-3	Xn	R22

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

3. HAZARDS IDENTIFICATION

Most important hazards : Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

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Protection of first-aiders : Use appropriate protection (see section 8).

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable : Dry chemical, water spray, foam, carbon dioxide.
Hazardous thermal (de)composition products : Chloride compounds 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.
Packaging materials
Suitable : High density polyethylene extrusion blow containers.
Polyethylene-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 : Diuron
TLV (USA) : 10 mg/m³
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 : Liquid
Colour : Whitish
Odour : Faint odour

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Boiling point	: 100°C (Water)
Density	: 1.18 ± 0.02 g/mL @ 20°C
Vapour pressure	: 0.01 mPa @ 25°C (Diuron)
Solubility in water	: 42 ppm @ 25°C (Diuron)
Octanol/water partition coefficient	: log = 2.8 (Diuron)
pH	: 6.5 - 8.5 CIPAC, MT 75
Flammability	: Not flammable
Explosion properties	: Not explosive
Oxidation properties	: Not oxidizing

10. STABILITY AND REACTIVITY

Stability	: Not subject to polymerization.
Materials to avoid	: Oxidizing agents, acids and alkali.
Hazardous reactions	:
Hazardous decomposition products	: Chloride compounds and nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Preparation (Diurex 80 SC)

Acute toxicity - Oral	: LD ₅₀ (rat) > 2,000 mg/kg
Acute toxicity - Dermal	: LD ₅₀ (rabbit) > 2,000 mg/kg
Acute toxicity - Inhalation	: LC ₅₀ (rat) > 20 mg/kg
Skin irritation	: Not irritating (rabbit).
Eye irritation	: Not irritating (rabbit).
Sensitization	: Non sensitizer (guinea-pig).
<u>Common name</u>	: Diuron
Chronic toxicity	: NOEL (dog): 125 mg/kg/day (2 years)
Carcinogenicity	: EPA : Not classified EU : Carc. Cat. 3 IARC : Not classified
Mutagenicity	: Not mutagenic
Reproduction toxicity	: NOEL (rat): 250 ppm (2 generation).
Other information	: Teratogenicity - NOEL(rat): 80 mg/kg/day(Fetal) ; 16 mg/kg/day(Maternal).

12. ECOLOGICAL INFORMATION

<u>Common name</u>	: Diuron
Mobility	: Soil Low mobility. Adsorbed on organic matter and clay. Low risk of underground water contamination.

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Persistence/degradability : Persistent in soil.
Half-life time ($t_{1/2}$): 90-180 days.
Degradation is primarily via: microorganisms.

Bioaccumulative potential : Low bioaccumulation potential ($\log P_{ow} = 2.8$).

Ecotoxicity : **Fish**
LC₅₀ (96 hours) rainbow trout (*oncorhynchus mykiss*) = 5.6 mg/L
bluegill sunfish (*lepomis macrochirus*) = 5.9 mg/L

Daphnia magna
EC₅₀ (48 hours) = 12 mg/L

Birds
Japanese quail (*coturnix coturnix japonica*) LD₅₀ = 637 mg/kg
LC₅₀ (8 day feeding) Mallard duck (*anas platyrhynchos*) and Japanese quail (*coturnix coturnix japonica*) > 5,000 ppm

Bees
Contact LD₅₀ (48 hours) > 145 µg/bee

Toxic to aquatic organisms. Low toxicity: birds. Not toxic to 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 : 3082

Land - Road/Railway

Proper shipping name : Environmentally hazardous substance, Liquid, N.O.S., Diuron

ADR/RID Class : 9, M6, PG III

Hazard Identification : 90

Number

Inland waterways

Proper shipping name : Environmentally hazardous substance, Liquid, N.O.S., Diuron

ADNR Class : 9, M6, PG III

Sea : Not classified.

Air : Not classified.

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).

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Hazard symbol(s) : Xn, N



HARMFUL



DANGEROUS FOR THE ENVIRONMENT

Risk phrases : R40: Limited evidence of a carcinogenic effect.
R48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.
S24/25: Avoid contact with skin and eyes.
S36/37: Wear suitable protective clothing and gloves.
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

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