



MATERIAL SAFETY DATA SHEET

Page : 1

Revised edition no : 1

Date : 27 / 4 / 2008

Supersedes : 0 / 0 / 0BB

BOBCAT COMBI 600 WG

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

Trade name : HEXARON 600 WG
Chemical description : Diuron: 3-(3,4-dichlorophenyl)-1,1-dimethylurea
Hexazinone: 3-cyclohexyl-6-dimethylamino-1-methyl-1,3,5-triazine-2,4-(1H,3H)-dione
Use : Herbicide.
Company identification : Agan Chemical Manufacturers Ltd.
P.O.B. 262
ASHDOD Israel
Emergency phone nr : +972-8-8515211
Email : MSDS@ma-industries.com

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance name	Value(s)	CAS No	EC No	Index No	Classification
Diuron (ISO)	: 44 - 49 %	330-54-1	206-354-4	006-015-00-9	Carc. Cat. 3; R40 Xn; R22-48/22 N; R50-53
Hexazinone	: 12 - 14 %	51235-04-2	257-074-4	613-132-00-4	Xn; R22 Xi; R36 N; R50-53

3. HAZARDS IDENTIFICATION

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

4. FIRST AID MEASURES

First aid
Inhalation : Remove victim to fresh air. If breathing is difficult: artificial respiration .
Get medical attention.
Ingestion : Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.
Skin contact : Remove contaminated clothing and shoes. Wash away remainder with plenty of water.
Eye contact : Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention.
Note to physician : No specific antidote known. Treat symptomatically and give supportive therapy.
Protection of first-aiders : Use appropriate protection (see section 8).

5. FIRE-FIGHTING MEASURES

Extinguishing media : For small fire : dry chemical powder , water spray carbon dioxide
For large fire : foam , water fog , water spray.
Hazardous decomposition products : Nitrogen oxide , chloride compounds , carbon oxides (CO, CO2) .
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, gloves and eye/face protection.
Environmental precautions : Do not empty into drains. Do not discharge into the environment.
After spillage and/or leakage : Collect spills and put it into appropriated container. Dispose of this material and its

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MATERIAL SAFETY DATA SHEET

Page : 2

Revised edition no : 1

Date : 27 / 4 / 2008

Supersedes : 0 / 0 / 0

BOBCAT COMBI 600 WG

H-0132

6. ACCIDENTAL RELEASE MEASURES (continued)

container at hazardous or special waste collection point.

7. HANDLING AND STORAGE

Handling	: Ventilation required.
Storage	: Keep in original containers. Keep away from food, drink and animal feeding stuffs. Store in dry, well-ventilated area.
Precautions in handling and storage	: Handle in accordance with good industrial hygiene and safety procedures.
Storage - away from	: Direct sunlight .

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures	: Ventilation required.
Industrial hygiene	: Wash hands thoroughly after handling. When using do not eat, drink or smoke. Wash clothing before re-using.
Personal protection	
- Respiratory protection	: Dust mask .
- Skin protection	: Wear suitable protective clothing Wear safety boots.
- Hand protection	: Wear suitable gloves.
- Eye protection	: Chemical goggles or safety glasses.
Occupational Exposure Limits	
TLV	: (Diuron): 10 mg/m ³ Hexazinone: No data available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Granular solid.
Colour	: Light brown
Odour	: characteristic
Melting point [°C]	: 158-159 (Diuron) 115-117 (Hexazinone)
Density	: 0.9308 g/cm ³
Vapour pressure [mPa]	: 0.001@ 25°C (Diuron) 0.03 (extrapolated) (25 °C) ; 8.5 mPa (86 °C) (Hexazinone)
Solubility in water	: Dispersible
Log P octanol / water	: 2.8 (Diuron) 1.2 (pH 7) (Hexazinone)
Flammability	: Not flammable
Explosion properties	: Not explosive
Oxidation properties	: Not oxidizing

10. STABILITY AND REACTIVITY

Stability	: Stable under normal conditions.
Hazardous decomposition products	: Nitrogen oxide , chloride compounds , carbon oxides (CO, CO ₂) .
Materials to avoid	: oxidizing agents , acids , alkali .



MATERIAL SAFETY DATA SHEET

Page : 3

Revised edition no : 1

Date : 27 / 4 / 2008

Supersedes : 0 / 0 /

BOBCAT COMBI 600 WG

11. TOXICOLOGICAL INFORMATION

On product

- Rat oral LD50 [mg/kg] : >2,000
Rat dermal LD50 [mg/kg] : > 2,000
Rat inhalation LC50 [mg/l/4h] : >5.31
Dermal irritation (rabbit) : Not irritant
Eyes irritation (rabbit) : Minimal irritant
Sensitization : Non sensitizer
Chronic toxicity : **Diuron:**
: NOEL (rat)=140 ppm or 7 mg/kg/day (2 years).
: NOEL (dog)=125 mg/kg/day (2 years).
: **Hexazinone:**
: NOEL (mouse)= 200 ppm (18 months dietary)
: NOEL (rat)= 200 ppm (2 years)
: NOEL (dog)=200 ppm (1 year)

Carcinogenicity

- : **Diuron:**
: EPA Group C: Possible human carcinogen.
: EU: Carcinogenic category 3
: IARC : not classified.
: **Hexazinone:**
: EPA: Group D : not classifiable as human carcinogenicity.

: EU : Not classified
: IARC : Not classified

Mutagenicity

- : Diuron & Hexazinone: Not mutagenic.

Reproductive toxicity

- : Diuron: NOEL (rat):250 ppm (2 generations).
: NOEL (rat)=200 ppm (2 generation)

Teratogenicity

- : Not teratogenic in animal experiments

12. ECOLOGICAL INFORMATION

On product

- 96 Hour - LC50- fish [mg/l] : 66.70 (Danio rerio)
48 H-EC50 - Daphnia magna [mg/l] : 53.64
72 H-EC50 Algae [mg/l] : 0.0168
LD50 Birds [mg/kg] : Japanese quail >2,000
Bees LD50 [µg/Bee] : >100 (Contact)
Persistence and degradability : **Diuron: Soil**
: The product is persistent .
: Half-life time (t1/2) 90-180 days.
: Degradation is primarily via: microorganisms
: **Hexazinone: Soil :**
: Moderately persistent in soil
: Half-life time (t1/2) : 90 days
: Degradation is primarily via: microorganisms

Mobility : **Diuron: Soil :**
: Low mobility .
: Adsorbed on organic matter and clay.
: **Hexazinone: Soil :**
: Koc =54 mL/g



MATERIAL SAFETY DATA SHEET

Page : 4

Revised edition no : 1

Date : 27 / 4 / 2008

Supersedes : 0 / 0 / 0

BOBCAT COMBI 600 WG

13. DISPOSAL CONSIDERATIONS

Disposal : Dispose of in a pesticide approved landfill, or in a chemical incinerator equipped with scrubbers. Dispose in a safe manner in accordance with local/national regulations.

14. TRANSPORT INFORMATION

International transport regulations

- UN No. : 3077
- Proper shipping name : Environmentally hazardous substances, solid, N.O.S. (Diuron, Hexazinone).

Land transport

- H.I. nr : 90
- ADR/RID : Class 9, M7, PG III

Sea transport

- IMO-IMDG code : Class 9, PG III
- EMS-Nr : F-A, S-F

Air transport

- IATA - Class or division : 9, PG III

National transport regulations : No additional national regulations are available/required

15. REGULATORY INFORMATION

EU Classification

Symbol(s) : Harmful.
Dangerous for the environment.



R Phrase(s) : R22- Harmful if swallowed.
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.

S Phrase(s) : S2- Keep out of the reach of children.
S13- Keep away from food, drink and animal feedingstuffs.
S22- Do not breathe dust.
S29/35- Do not empty into drains; dispose of this material and its container in a safe way.
S37- Wear suitable 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

Text of R-phrases in heading 2 : R22 - Harmful if swallowed.
R36 - Irritating to eyes.
R40 - Limited evidence of a carcinogenic effect.
R48/22 - Harmful : danger of serious damage to health by prolonged exposure if swallowed.



MATERIAL SAFETY DATA SHEET

Page : 5

Revised edition no : 1

Date : 27 / 4 / 2008

Supersedes : 0 / 0 / 0

BOBCAT COMBI 600 WG

16. OTHER INFORMATION (continued)

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Print date

: 23 / 6 / 2008

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