



MATERIAL SAFETY DATA SHEET

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Revised edition no : 1

Date : 26 / 2 / 2008

Supersedes : 0 / 0 / 0

COTTONEX P

H-0073

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

Trade name : COTTONEX P
Chemical description : Flumeturon: 1,1-dimethyl-3-a,a,a-yrifluoro-m-toly)urea.
Prometryn: N2,N4-di-isopropyl-6-methylthio-1,3,5-triazine-2,4-diamine.
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
Fluometuron	: 21 - 24 %	2164-17-2	218-500-4	-----	
Prometryn	: 21 - 24	7287-19-6	230-711-3	-----	

3. HAZARDS IDENTIFICATION

Environmental hazard : Harmful 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 : Sulfur oxides , fluorides , nitrogen oxides (NO, NO2...) , 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 : Absorb in sand or other inert material. Collect spills and put it into appropriated container. Dispose of this material and its container at hazardous or special waste collection point.



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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** : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. .
 - **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** : Fluometuron: No data available.
Prometryn: 5 mg/m3

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state** : Liquid
- Colour** : White -off white
- Odour** : Faint odour
- pH value** : 7-8.5
- Boiling point [°C]** : 100 (water)
- Density [g/ml]** : 1.115± 0.02 @ 20°C
- Vapour pressure [mPa]** : 0.125 @ 25°C (Fluometuron)
0.114@ 25°C (Prometryn)
- Solubility in water** : Miscible
- Log P octanol / water** : 2.23 (Fluometuron)
3.56 (Prometryn)
- Flammability** : Not flammable
- Explosion properties** : Not explosive
- Oxidation properties** : Not oxidizing

10. STABILITY AND REACTIVITY

- Stability** : Stable under normal conditions.
- Hazardous decomposition products** : Sulfur oxides , fluorides , nitrogen oxides (NO, NO2...) , carbon oxides (CO, CO2) .
- Materials to avoid** : oxidizing agents , acids , alkali .



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11. TOXICOLOGICAL INFORMATION

On product

Rat oral LD50 [mg/kg] : >2,000

Rat dermal LD50 [mg/kg] : > 2,000

Chronic toxicity : (Fluometuron): NOEL (rat):19 mg/kg/day, (mouse):1/2 mg/kg/day.
(Prometryn): NOEL (rat)=83 mg/kg/day or 1,250 ppm (2 years).
(Prometryn): NOEL dog)=4 mg/kg/day or 150 ppm (2 years).Carcinogenicity : (Fluometuron): EPA , EU , IARC : not classified.
(Prometryn): EPA: Group E , EU , IARC : Not classified .Mutagenicity : (Fluometuron): Not mutagenic.
(Prometryn): Not mutagenic.Reproductive toxicity : (Fluometuron): NOEL 10 ppm.
(Prometryn): NOAEL (rat): 300 ppm (3 generations).Teratogenicity : (Fluometuron): NOEL (rat): 10 mg/kg/day.
(Prometryn): NOEL (rat)=80 mg/kg/day (maternal), 220 mg/kg/day (fetal).
NOEL (rat)>360 mg/kg/day (teratogenic).

12. ECOLOGICAL INFORMATION

96 H-LC50 - Bluegill sunfish [mg/l] : (Fluometuron): 48
(Prometryn): 8

96 H-LC50 - Carp [mg/l] : (Fluometuron):170

96 H-LC50 - Rainbow trout [mg/l] : (Prometryn): 5.5
(Fluometuron): 3048 H-EC50 - Daphnia magna [mg/l] : (Fluometuron): 54
(Prometryn): 12.66

7 d.-NOEC - Zebra fish [mg/l] : (Prometryn): 1

72 H-EC50 Algae [mg/l] : (Fluometuron): 0.16
(Prometryn): 485

EC50 Algae [mg/l] : (Prometryn): (5 days): 0.023

LD50 Birds [mg/kg] : (Fluometuron): Bobwhite quail >2,150
(Fluometuron): Mallard duck =2,974
(Prometryn): chicken > 2,000
(Prometryn): Bobwhite quail >3,851Birds LC50 [ppm] : (Fluometuron): (8 day feeding): Bobwhite quail =4,500
(Fluometuron): (8 day feeding): Mallard duck =4,500
(Prometryn): (8 day feeding): Mallard duck >5,000
(Prometryn): Bobwhite quail >4,640
(Prometryn): (8 day feeding): Bobwhite quail >5,000
(Prometryn): Mallard duck >4,640Bees LD50 [µg/Bee] : (Fluometuron): Oral >155
(Prometryn): oral >99
(Prometryn): Contact >130Persistence and degradability : **(Fluometuron): Soil :**
: Moderately persistent in soil.
Half-life time (t1/2) ~ 30 days.
Degradation is primarily via: microorganisms. .: **(Prometryn): Soil :**
: Moderately persistent in soil.
Adsorbed on organic matter and clay.
Half-life time (t1/2) : 40-70 days.
Degradation is primarily via: microorganisms.



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12. ECOLOGICAL INFORMATION (continued)

	Low risk of underground water contamination. The product is not biodegradable
Mobility	: (Prometryn): Water : : The product is not persistent. : (Fluometuron): Soil : : Moderate . : (Prometryn): Soil : : Low mobility . Koc 400 ml/g
Bioaccumulative potential	: (Prometryn): Low bioaccumulation potential (BCF< 100).

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.
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14. TRANSPORT INFORMATION

International transport regulations	
- UN No.	: 3082
- Proper shipping name	: Environmentally hazardous substance, liquid, N.O.S. (Fluometuron, Prometryn).
Land transport	
- H.I. nr :	: 90
- ADR/RID	: Class 9, M6, 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	: According to Commission Directive 67/548/EEC and its amendments
R Phrase(s)	: R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S Phrase(s)	: S02 - Keep out of the reach of children. S13- Keep away from food, drink and animal feedingstuffs. 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. S57- Use appropriate containment to avoid environmental contamination. S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.

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16. OTHER INFORMATION

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