



# MATERIAL SAFETY DATA SHEET

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Revised edition no : 3

Date : 10 / 3 / 2011

Supersedes : 22 / 6 / 2009

## PROTUGAN 50 SC

**H-0203**

### 1. Identification of the substance/mixture and of the company/undertaking

**Trade name** : PROTUGAN 50 SC  
**Chemical description** : Isoproturon: 3-(4-isopropylphenyl)-1,1-dimethylurea; 3-p-cumenyl-1,1-dimethylurea  
**Use** : Herbicide  
**Company identification** : Agan Chemical Manufacturers Ltd.  
P.O.B. 262  
ASHDOD Israel  
MSDS@ma-industries.com  
**Emergency phone nr** : +972-8-8515211

### 2. Hazards identification

**Human health hazards** : Limited evidence of a carcinogenic effect.  
**Environmental hazard** : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 3. Composition/information on ingredients

Substance name	Value(s)	CAS No	EC No	Index No	REACH Reg.	Classification
Isoproturon	: 44 - 49 %	34123-59-6	251-835-4	006-044-00-7	-----	Carc. Cat. 3; R40 N; R50-53 (M fact. = 10)
Ethylene Glycol	: 4 - 5 %	107-21-1	203-473-3	603-027-00-1	-----	Xn; R22

### 4. First aid measures

**First aid**  
**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.  
**Inhalation** : Remove victim to fresh air. If breathing is difficult: artificial respiration . 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.  
**Protection of fire-fighters** : Self-contained breathing apparatus and total protection required in enclosed areas.  
**Hazardous decomposition products** : Nitrogen oxide , carbon oxides (CO, CO2) .

### 6. Accidental release measures

**Personal precautions** : Wear suitable protective clothing, gloves and eye/face protection.

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### 6. Accidental release measures (continued)

- 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 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** : Respiratory protection is not required if good ventilation is maintained  
- **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** : **Isoproturon: Data not available.**

### 9. Physical and chemical properties

- Physical state** : Liquid  
**Colour** : Whitish  
**Odour** : Faint odour  
**pH value** : 7-8.5  
**Melting point [°C]** : 158 (Isoproturon)  
**Boiling point [°C]** : 100 (Water)  
**Density [g/ml]** : 1.080 ±0.020 @ 20°C  
**Vapour pressure [mPa]** : 0.003@ 20°C (Isoproturon)  
**Solubility in water** : Miscible  
**Log P octanol / water** : 2.5 @ 22°C (Isoproturon)  
**Flammability** : Not flammable  
**Explosion properties** : Not explosive  
**Oxidizing properties** : Not oxidizing

### 10. Stability and reactivity

- Stability** : Stable under normal conditions.

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### 10. Stability and reactivity (continued)

**Hazardous decomposition products** : Nitrogen oxide , carbon oxides (CO, CO2) .  
**Hazardous Polymerization** : Will not occur.  
**Materials to avoid** : oxidizing agents , acids , alkali .

### 11. Toxicological information

**On product**

**Oral, Rat LD50 [mg/kg]** : >5,000  
**Dermal, Rat LD50 [mg/kg]** : > 2,000  
**Inhalation, Rat LC50 [mg/l/4h]** : >4.32  
**Skin corrosion/ irritation** : Not irritant  
**Serious eye damage/ irritation** : Minimal irritant  
**Respiratory or skin sensitization** : Non sensitizer  
**Carcinogenicity** **Isoproturon:**  
: EPA : Not classified  
EU: Carc.Cat. 3  
IARC : not classified.  
**Germ cell mutagenicity** : Isoproturon: Not mutagenic  
**Reproductive toxicity** : Isoproturon: Not considered to be toxic for the reproductive system.  
**Teratogenicity** : Isoproturon: Not teratogenic in animal experiments

### 12. Ecological information

**On product**

**96 H-LC50 - Rainbow trout [mg/l]** : 96.1  
**48 H-LC50-Daphnia magna [mg/l]** : 112.2  
**48 H-LC50 - Algae [mg/l]** : 0.08  
**LD50 - Japanese quail [mg/kg]** : (Isoproturon)=4,150  
**Bees LD50 [µg/Bee]** : Not toxic to bees  
**Persistence and degradability** **Isoproturon: Soil :**  
: Moderately persistent in soil  
Half-life time (t1/2) : 15-40 days.  
**Mobility** **Soil :**  
: Mobile.

### 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

- UN No. : 3082

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### 14. Transport information (continued)

- Proper shipping name : UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.( ISOPRTURON), 9, III
- Packing group : III
- Class : 9
- H.I. nr : : 90
- IMDG-Marine pollution : Yes

### 15. Regulatory information

**EU Classification** : According to Commision Directive 67/548/EEC, 1999/45/EC and its amendments  
**Symbol(s)**



**R Phrase(s)**

- : Xn: Harmful.  
N: Dangerous for the environment.
- : R40 - Limited evidence of a carcinogenic effect.  
R50/53 - Very toxic 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.  
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

**List of full text of R-phrases in section 3.** : R22 - Harmful if swallowed.  
R40 - Limited evidence of a carcinogenic effect.  
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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