

# SAFETY DATA SHEET

## PROTUGAN PLUS

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

**Product name** : PROTUGAN PLUS  
**Chemical name of active ingredient(s)** : Isoproturon: 3-(4-Isopropylphenyl)-1,1-dimethylurea.  
 Simazine: 6-Chloro-N,N'-diethyl-1,3,5-triazine-2,4-diamine.  
**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 9LW, 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
Isoproturon	34123-59-6	33 - 36	251-835-4	Xn	R22-40
Simazine	122-34-9	5 - 6	204-535-2	Xn	R40

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

### 3. HAZARDS IDENTIFICATION

**Most important hazards** : Possible risks of irreversible effects. Toxic to aquatic organisms.

### 4. FIRST-AID MEASURES

**Effects and symptoms**

**Eye contact** : May be irritating to eyes.

**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).

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### 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.

### 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** : **OEL (United Kingdom)**
- Isoproturon : Not established
- Simazine : 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** : Liquid
- Colour** : White
- Odour** : Faint odour

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<b>Boiling point</b>	: 100°C (Water)
<b>Density</b>	: 1.080 ± 0.020 g/mL @ 20°C
<b>Vapour pressure</b>	: 0.003 mPa (Isoproturon) 0.003 mPa @ 25°C (Simazine)
<b>Solubility in water</b>	: 55 ppm (Isoproturon) 6.2 - 7 ppm @ 25°C (Simazine)
<b>Octanol/water partition coefficient</b>	: log = 2.69 (Isoproturon) log = 2.19 (Simazine)
<b>pH</b>	: 6 - 9 CIPAC, MT 75.2
<b>Flammability</b>	: Not flammable
<b>Explosion properties</b>	: Not explosive
<b>Oxidation properties</b>	: Not oxidizing

#### 10. STABILITY AND REACTIVITY

<b>Stability</b>	: Not subject to polymerization.
<b>Materials to avoid</b>	: Oxidizing agents, acids and alkali.
<b>Hazardous reactions</b>	: None
<b>Hazardous decomposition products</b>	: Chloride compounds and nitrogen oxides.

#### 11. TOXICOLOGICAL INFORMATION

##### Preparation

<b>Acute toxicity - Oral</b>	: LD <sub>50</sub> (rat) > 2,000 mg/kg
<b>Acute toxicity - Dermal</b>	: LD <sub>50</sub> (rat) > 4,000 mg/kg
<b>Acute toxicity - Inhalation</b>	: LC <sub>50</sub> (rat) > 5.61 mg/L (4 hours)
<b>Skin irritation</b>	: Not irritating (rabbit).
<b>Eye irritation</b>	: Minimal irritant (rabbit).
<b>Sensitization</b>	: The product is not a skinsensitizer (guinea-pig).

<b>Common name</b>	: <b>Isoproturon</b>
<b>Chronic toxicity</b>	: NOEL (rat): 80 ppm.
<b>Carcinogenicity</b>	: EPA : Not classified EU : Not classified IARC : Not classified
<b>Mutagenicity</b>	: Not mutagenic.
<b>Reproduction toxicity</b>	: NOEL (rat): 100 ppm (2-generation).
<b>Other information</b>	: Teratogenicity - NOEL (rat): 20 mg/kg/day
<b>Common name</b>	: <b>Simazine</b>
<b>Chronic toxicity</b>	: NOEL : rat 10 ppm ; mouse 40 ppm .
<b>Carcinogenicity</b>	: EPA : Group C EU : Category 3 IARC : Group 3
<b>Mutagenicity</b>	: Not mutagenic.
<b>Reproduction toxicity</b>	: NOEL (rat): 10 ppm (Maternal) ; 500 ppm (Fetal).
<b>Other information</b>	: Teratogenicity - NOEL (rat): 10 mg/kg/day ; NOEL (rabbit): 5 mg/kg/day.



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### 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., Isoproturon.  
**ADR/RID Class** : 9, Label 9  
**ADR/RID Item number** : 11(c)  
**Packing group** : III  
**Hazard Identification Number** : 90

#### Inland waterways

**Proper shipping name** : Environmentally hazardous substance, Liquid, N.O.S., Isoproturon.  
**ADNR Class** : 9, 11(c), Label 9

**Sea** : Not classified.

**Air** : Not classified.

#### National transport regulations

**United Kingdom** : No additional national transport regulations are known to the supplier

### 15. REGULATORY INFORMATION

**Classification** : United Kingdom - Not classified.

**Safety phrases** : S02: Keep out of the reach of children.  
S07: Keep container tightly closed.  
S13: Keep away from food, drink and animal feedingstuffs.  
S20/21: When using do not eat, drink or smoke.  
S23D: Do not breathe spray.  
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S28: After contact with skin, wash immediately with plenty of water.  
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.  
S49: Keep only in the original container.  
S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

**United Kingdom** : No additional national regulations are known to the supplier

### 16. OTHER INFORMATION

## **SAFETY DATA SHEET**

### **PROTUGAN PLUS**

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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