



# MATERIAL SAFETY DATA SHEET

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Revised edition no : 2

Date : 17 / 6 / 2009

Supersedes : 13 / 2 / 2008

**URAGAN 80 WG****H-0059**

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

**Trade name** : URAGAN 80 WG  
**Chemical description** : Bromacil: 5-bromo-3-sec-butyl-6-methyluracil  
**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** : Harmful if swallowed.  
**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	Classification
Bromacil	: 78 - 82 %	314-40-9	206-245-1	-----	

## 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** : Bromine compounds , 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** : Collect spills and put it into appropriated container. Dispose of this material and its container at hazardous or special waste collection point.  
Keep away from combustible material.

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### 7. HANDLING AND STORAGE

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

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering measures</b>	: Ventilation required.
<b>Industrial hygiene</b>	: Wash hands thoroughly after handling. When using do not eat, drink or smoke. Wash clothing before re-using.
<b>Personal protection</b>	
- 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.
<b>Occupational Exposure Limits</b>	
TLV [mg/m <sup>3</sup> ]	: Bromacil: 10

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	: Granules
<b>Colour</b>	: Brown
<b>Odour</b>	: Faint odour
<b>pH value</b>	: 7-10
<b>Melting point [°C]</b>	: 158-159 (Bromacil)
<b>Bulk density [g/cc]</b>	: 0.53 ± 0.02
<b>Vapour pressure [mPa]</b>	: 0.04 @ 25°C (Bromacil)
<b>Solubility in water</b>	: Miscible
<b>Log P octanol / water</b>	: 1.9 (Bromacil)
<b>Flammability</b>	: Not flammable
<b>Explosion properties</b>	: Not explosive
<b>Oxidation properties</b>	: Not oxidizing

### 10. STABILITY AND REACTIVITY

<b>Stability</b>	: Stable under normal conditions.
<b>Hazardous decomposition products</b>	: Bromine compounds , nitrogen oxides (NO, NO <sub>2</sub> ...) , carbon oxides (CO, CO <sub>2</sub> ) .
<b>Materials to avoid</b>	: oxidizing agents , acids , alkali .

### 11. TOXICOLOGICAL INFORMATION

<b>On product</b>	: <b>URAGAN 80 WG</b>
<b>Rat oral LD50 [mg/kg]</b>	: =1723
<b>Rat dermal LD50 [mg/kg]</b>	: > 2,000
<b>Rat inhalation LC50 [mg/l/4h]</b>	: >5.09
<b>Dermal irritation (rabbit)</b>	: Mildly irritating
<b>Eyes irritation (rabbit)</b>	: Mildly irritating
<b>Sensitization</b>	: Non sensitizer

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## 11. TOXICOLOGICAL INFORMATION (continued)

<b>Carcinogenicity</b>	: (Bromacil): EPA Group C: Possible human carcinogen EU : Not classified IARC : Not classified
<b>Mutagenicity</b>	: Not mutagenic
<b>Reproductive toxicity</b>	: Not considered to be toxic for the reproductive system.
<b>Teratogenicity</b>	: Not teratogenic in animal experiments

## 12. ECOLOGICAL INFORMATION

<b>Common name</b>	: <b>Bromacil</b>
<b>96 H-LC50 - Rainbow trout [mg/l]</b>	: 36
<b>48 H-EC50 - Daphnia magna [mg/l]</b>	: 121
<b>72 H-EC50 Algae [mg/l]</b>	: 0.0068
<b>LD50 Birds [mg/kg]</b>	: Bobwhite quail =2,250
<b>Persistence and degradability</b>	: <b>Soil :</b> : The product is persistent Half-life time (t1/2) : 60 days.
<b>Mobility</b>	: <b>Soil :</b> : Moderately mobile

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal</b>	: 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

<b>International transport regulations</b>	
- UN No.	: 3077
- Proper shipping name	: Environmentally hazardous substances, solid, N.O.S. (Bromacil).
<b>Land transport</b>	
- H.I. nr :	: 90
- ADR/RID	: Class 9, M7, PG III
<b>Sea transport</b>	
- IMO-IMDG code	: Class 9, PG III
- IMDG-Marine pollution	: Yes
- EMS-Nr	: F-A, S-F
<b>Air transport</b>	
- IATA - Class or division	: 9, PG III
<b>National transport regulations</b>	: No additional national regulations are available/required

## 15. REGULATORY INFORMATION

<b>EU Classification</b>	: According to Commission Directive 67/548/EEC and its amendments
<b>Symbol(s)</b>	: N: Dangerous for the environment.

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## 15. REGULATORY INFORMATION (continued)

<b>R Phrase(s)</b>	: Xn: Harmful. : R22 - Harmful if swallowed. R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>S Phrase(s)</b>	: 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. 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

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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