



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **URAGAN 80 WG HERBICIDE**
Chemical Name of Active Ing: Bromacil: 5-brono-3-sec-butyl-6-methyluracil
Product Use: Herbicide
Restriction of Use: Refer to Section 15

New Zealand Supplier: ADAMA New Zealand Ltd
Address: Level 1/93 Bolt Road
Tahunanui, Nelson
Telephone: +64 3 543 8275
Email: nzorders@adama.com

Emergency Telephone: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 2 July 2019

Section 2. Hazards Identification

This substance is hazardous according to the *Hazardous Substances (Classification) Notice 2017*

EPA Approval No: HSR007915

Pictograms



Toxic/Irritant



Chronic



Ecotoxic

Signal Word: **Warning**

| HSNO Classification | Hazard Code | Hazard Statement | GHS Category |
|---------------------|-------------|--|-------------------|
| 6.1D (oral) | H302 | Harmful if swallowed. | Acute Tox. 4 |
| 6.3B | H316 | Causes mild skin irritation. | Skin Irrit. 3 |
| 6.4A | H319 | Causes serious eye irritation. | Eye Irrit. 2A |
| 6.7B | H351 | Suspected of causing cancer. | Carc. 2 |
| 6.8B | H361 | Suspected of damaging fertility or the unborn child. | Repr. 2 |
| 6.9B | H373 | May cause damage to organs through prolonged or repeated exposure. | STOT RE 2 |
| 9.1A | H410 | Very toxic to aquatic life with long lasting effects. | Aquatic Chronic 1 |
| 9.2A | H421 | Very toxic to the soil environment. | |
| 9.3C | H433 | Harmful to terrestrial vertebrates. | |

| Prevention Code | Prevention Statement |
|------------------------|---|
| P102 | Keep out of reach of children. |
| P103 | Read label before use. |
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P260 | Do not breathe dust. |
| P264 | Wash hands thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective clothing as detailed in Section 8. |
| P281 | Use personal protective equipment as required. |

| Response Code | Response Statement |
|----------------------|--|
| P101 | If medical advice is needed, have product container or label at hand. |
| P314 | Get medical advice/attention if you feel unwell. |
| P330 | Rinse mouth. |
| P391 | Collect spillage. |
| P301 + P312 | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. |
| P305 + P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313 | IF exposed or concerned: Get medical advice/ attention. |
| P332 + P313 | If skin irritation occurs: Get medical advice/ attention. |
| P337 + P313 | If eye irritation persists: Get medical advice/attention. |

| Storage Code | Storage Statement |
|---------------------|--------------------------|
| P405 | Store locked up. |

| Disposal Code | Disposal Statement |
|----------------------|---|
| P501 | Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill. Do not allow product to enter waterways. Do not burn product or container. |

Section 3. Composition / Information on Ingredients

| Ingredients | Wt % | CAS NUMBER. |
|--------------------|-------------|--------------------|
| Bromacil | 78-82 | 314-40-9 |

Section 4. First Aid Measures

Routes of Exposure:

| | |
|--------------|--|
| If in Eyes | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| If on Skin | Remove contaminated clothing. Gently wash skin with water and soap for 15 minutes or until chemical is removed. If skin irritation occurs: Get medical advice/ attention. |
| If Swallowed | Wash out mouth with plenty of water. Get medical attention. Never give anything by mouth to an unconscious person. |
| If Inhaled | Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position |

and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: Harmful if swallowed.

Inhalation: Not applicable.

Skin: Causes mild skin irritation.

Eye: Causes serious eye irritation.

Chronic: Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Notes to Doctor: There is no specific antidote. Treat symptomatically and give supportive therapy.

Section 5. Fire Fighting Measures

| | |
|---|--|
| Hazard Type | Non Flammable |
| Hazards from products | Bromine compounds, nitrogen oxides (NO, NO2...), carbon oxides (CO, CO2) |
| Suitable Extinguishing media | For small fire: Dry chemical, water spray, carbon dioxide. For large fire: foam, water fog, water spray |
| Precautions for firefighters and special protective clothing | Self-contained breathing apparatus and total protection required in enclosed areas. |
| HAZCHEM CODE | 2X |

Section 6. Accidental Release Measures

Wear suitable protective clothing, gloves and eye/face protection. Evacuate all unnecessary personnel.

Environmental precautions

In the event of a major spill, prevent spillage from entering into drains and water courses.

Methods and material for containment and cleaning up

Absorb remainder in sand or other inert material. Dispose of in an authorized waste collection. Dispose as per Section 15.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust.
- Ventilation is required.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Wear protective clothing as detailed in Section 8.
- Use personal protective equipment as required.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store locked up.

- Store in original, unopened container in cool, dry place, well ventilated place, out of direct sunlight and away from stockfeed or foodstuffs.
- As a Class 9 Substance with Ecotoxicity Classifications storage of Uragan WG Herbicide must be carried out in such a manner as to prevent contamination of waterways. It is recommended that The New Zealand Standard for the Management of Agrichemicals (NZS8409) is followed as a means of meeting the secondary containment provisions of the HSNO Emergency Management Regulations.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

| Substance | TWA | | STEL | |
|-----------|-----|-------------------|------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ |

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

Engineering Controls

Ventilation required

Personal Protection Equipment



| | |
|-----------------------|---|
| Eyes | Safety goggles or face shield. |
| Hands and Skin | Chemical resistant gloves. Wear suitable protective clothing and chemical resistant boots. |
| Respiratory | Dust mask is required. |
| General | When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use. |

Section 9 Physical and Chemical Properties

| | |
|--|-------------------------|
| Appearance | Off White Granules |
| Odour | Faint |
| Odour Threshold | Not applicable |
| pH | 7 - 10 |
| Boiling Point | Not applicable |
| Melting Point | 158 -159°C (Bromacil) |
| Flash Point | Not applicable |
| Flammability | Not Flammable |
| Upper and Lower Exposure Limits | Not applicable |
| Vapour Pressure (mPa) | 0.04 @ 25 °C (Bromacil) |
| Specific Gravity | 1.06-1.08 |
| Solubilities in water | Miscible |
| LogP octanol/water: | 1.9 (Bromacil) |
| Auto-ignition Temperature | Not applicable |

Section 10. Stability and Reactivity

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|---|--|
| Stability of Substance | This product is stable under normal conditions. |
| Conditions to Avoid | None known. |
| Incompatible Materials | Oxidizing agents, acids and alkali. |
| Hazardous Decomposition Products | Bromine compounds, nitrogen oxides (NO, NO ₂ ...), carbon oxides (CO, CO ₂) |

Section 11 Toxicological Information

Acute Effects:

| | |
|-------------------|--|
| Swallowed | Harmful if swallowed. Rat Oral LD50 [mg/kg]: =1723 |
| Dermal | Not applicable. Rat dermal LD50 [mg/kg]: > 2,000 |
| Inhalation | Not applicable. Rat inhalation LC50 [mg/I/4h]: >5.09 |
| Skin | Causes mild skin irritation. |
| Eye | Causes serious eye irritation. |

Chronic Effects:

| | |
|-------------------------------|--|
| Carcinogenicity | Suspected of causing cancer. |
| Reproductive Toxicity | Suspected of damaging fertility or the unborn child. |
| Germ Cell Mutagenicity | Not applicable. |
| Aspiration | Not applicable. |
| STOT/SE | Not applicable. |
| STOT/RE | May cause damage to organs through prolonged or repeated exposure. |

URAGAN 80 WG

| | |
|-----------------------------|---|
| Dermal irritation (rabbit): | Mildly irritating |
| Eyes irritation (rabbit): | Mildly irritating |
| Sensitisation: | Non sensitiser |
| Chronic toxicity: | (Bromacil): NOEL (rat)=50 ppm (2 years) |
| Carcinogenicity: | (Bromacil): EPA Group C: possible human carcinogen |
| Mutagenicity: | (Bromacil): Not mutagenic |
| Reproductive toxicity: | (Bromacil): NOEL (rat) = 250 ppm (3 generations) |
| Teratogenicity: | (Bromacil): NOEL (rat) = 20 mg/kg/day (maternal) = 75 mg/kg/day (fetal) NOEL (rabbit) = 100 mg/kg/day (Maternal and fetal) |

Section 12. Ecotoxicological Information

HSNO Classes: 9.1A = Very toxic to aquatic life with long lasting effects.
9.2A = Very toxic to the soil environment.
9.3C = Harmful to terrestrial vertebrates.

Common name: Bromacil

| | |
|-----------------------------|---|
| 96H-LC50- Bluegill sunfish | 127 mg/I |
| 96 H-LC50 – Rainbow trout | 36 mg/I |
| 96 Hours – LC50-fish Carp = | 164 mg/I |
| 48 H-EC50 – Daphnia magna | 121 mg/I |
| 72 H-EC50 Algae | 0.0068 mg/I |
| LD50 Birds | Bobwhite quail = 2,250 mg/I |
| Birds LC50 [ppm] | Mallard duck >10,000 Bobwhite quail > 10,000 |

Persistence/degradability:

Soil:

The product is persistent

Half-life time (t_{1/2}): 60 days

Degradation is primarily via: microorganisms.

Mobility:

Soil – moderately mobile

Koc = 32 ml/g (Average)

Kd = 0.2-1.8 ml/g.

Section 13. Disposal Considerations

Disposal Method: Puncture or shred and bury empty bags in a local authority landfill. If no landfill is available, bury the bags below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty bags and product should not be burnt. Dispose of the product only by using according to the label, or at an approved landfill.

Precautions and methods to avoid:

Avoid contamination of any water supply with product or empty container.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012



Road and Rail Transport

UN No: 3077
Class-primary 9
Packing Group III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, (Bromacil)

Air Transport

UN No: 3077
Class-primary 9
Packing Group III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, (Bromacil)

Marine Transport

UN No: 3077
Class-primary 9
Packing Group III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, (Bromacil)
Marine Pollutant Yes

Special Provisions:

If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15 Regulatory Information

This substance is hazardous according to the Hazardous Substances (Classification) Notice 2017

Refer to EPA website www.epa.govt.nz for controls document - HSR007915

| HSW (HS) Regulations 2017 | Trigger Quantity/Regulation |
|--|--|
| HSW(Hazardous substance) Regulations Part 4 Certified Handlers and supervision and training of workers | HSW Reg 4.5 – 4.6 Information, instruction, training and supervision. |
| Location Certificate | Not required |
| Signage Trigger Quantities (Schedule 3) | 100Kg (9.1A) |
| Emergency Response Plan (Schedule 5) | 100Kg (9.1A) |
| Secondary Containment (Schedule 5) | 100Kg (9.1A) |
| Tracking (Schedule 26) | Not required |
| HSNO Additional Controls (Restrictions of use) | |
| 77A | The substance must not be applied onto or into water. |
| Hazardous Property Controls Notice 2017 | |
| HPC Notice Part 4 Clause 47 | Equipment for class 9 substances must be appropriate |
| HPC Notice Part 4 Clause 48 | Records of application of class 9 pesticides and plant growth regulators |
| HPC Notice Part 3 | Hazardous substances in a place other than a workplace |
| HPC Notice Part 4 Subpart A | Site and storage controls for class 9 substances |
| HPC Notice Part 4 Subpart C | Qualifications required for application of class 9 pesticides |
| ACVM Act and Regulations | |
| ACVM Approval No See www.foodsafety.govt.nz for registration controls | P7859 |

| Section 16 | Other Information |
|-------------------|--------------------------|
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Glossary

| | |
|------|---|
| EC50 | Median effective concentration. |
| EEL | Environmental Exposure Limit. |
| EPA | Environmental Protection Authority |
| HSNO | Hazardous Substances and New Organisms. |
| LC50 | Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it. |
| LD50 | Lethal dose to kill 50% of test animals/organisms. |
| LEL | Lower explosive level. |
| OSHA | American Occupational Safety and Health Administration. |
| TEL | Tolerable Exposure Limit. |
| TLV | Threshold Limit Value-an exposure limit set by responsible authority. |
| UEL | Upper Explosive Level |
| WES | Workplace Exposure Limit |

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the ADAMA, if further information is required.

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