



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **URAGAN 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)
0800 734 607 (24hr Emergency Response)**

Date of SDS Preparation: 22 April 2024

Section 2. Hazards Identification

This substance is hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020

HSNO Approval No: HSR007915

Pictograms



Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement
Acute oral toxicity Category 4	H302	Harmful if swallowed.
Eye irritation Category 2	H319	Causes serious eye irritation.
Carcinogenicity Category 2	H351	Suspected of causing cancer.
Reproductive toxicity Category 2	H361	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment acute Category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment chronic Category 1	H410	Very toxic to aquatic life with long lasting effects.
Hazardous to soil organisms	H421	Very toxic to the soil environment.
Hazardous to terrestrial vertebrates	H433	Harmful to terrestrial vertebrates.

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
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 unintended release into the environment.
P280 + P281	Wear protective clothing and personal protective equipment as detailed in Section 8.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P301 + P312 + P330	IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351+ P337 + P338	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.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P391	Collect spillage.

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: Not applicable.

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, NO ₂ ...), carbon oxides (CO, CO ₂)
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.
- 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 unintended release into the environment.
- Wear protective clothing and use personal protective equipment as detailed in Section 8.

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 substance with aquatic 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.

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

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	Not applicable.
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

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: Dispose of this product only by using according to the label or at an approved landfill. Container Disposal: Triple rinse container and add rinsate to spray tank. Empty containers and product should not be burnt. Dispose of container in a suitable landfill or take to an Agrecovery collection site. Do not use container for any other purpose.



Precautions: Do not allow product to enter waterways.

Disposal methods to avoid: Do not burn product or container.

Section 14 Transport Information

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



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 (Hazard Classification) Notice 2020

HSNO Approval Code: HSR007915

HSNO Classification: Acute oral toxicity Category 4, Eye irritation Category 2, Carcinogenicity Category 2, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates.

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
Hazardous Property Controls Notice 2017	
HPC Notice Part 1	Hazardous Property Controls preliminary provisions
HPC Notice Part 3	Hazardous substances in a place other than a workplace
HPC Notice Part 4 Subpart A	Substances that are hazardous to the environment: Site and storage controls
HPC Notice Part 4 Subpart B	Use of substances that are hazardous to the environment
HPC Notice Part 4 Clause 47	Equipment for environmentally hazardous substances must be appropriate
HPC Notice Part 4 Clause 48	Record of application of agrichemicals
HPC Notice Part 4 Clause 52	Agrichemicals that are hazardous to the aquatic environment must not be applied to water
HPC Notice Part 4 Subpart C	Qualifications required for the application of substances that are hazardous to the environment
ACVM Act and Regulations	
ACVM Approval No See www.foodsafety.govt.nz for registration controls	P7859

Glossary

ACVM	Agricultural Compounds and Veterinary Medicines Act 1997.
EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority.
HSNO	Hazardous Substances and New Organisms Act 1996.
HSW	Health and Safety at Work Act 2015.
HSW (HS) Regulations	Health and Safety at Work (Hazardous Substances) Regulations 2017.
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
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer:

This document has been issued by Adama New Zealand Ltd and serves as their Safety Data Sheet ('SDS'). It is based on information concerning the product which is held by Adama New Zealand Ltd or has been obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. While Adama New Zealand Ltd have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Adama New Zealand Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS. The information herein is given in good faith, but no warranty, express or implied is made.

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