

Infosafe No™ 3NUYF	Issue Date : October 2018	ISSUED by NUFARM
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 Product Name **Bentley Selective Herbicide**

Classified as hazardous

1. Identification

GHS Product Identifier	Bentley Selective Herbicide	
Product Code	0617	NUL 2159
Product Type	Group C F Herbicide	
Company Name	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)	
Address	103-105 Pipe Road Laverton North Victoria 3026 Australia	
Telephone/Fax Number	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001	
Emergency phone number	1800 033 498 (24hr Australia)	
Recommended use of the chemical and restrictions on use	For the control of certain broadleaf weeds in winter cereals and pastures as specified in the Directions for Use table on the label.	
Other Information	This Safety Data Sheet describes the properties of the concentrated product. The physical properties and the assessments may not apply to the properties of the product once it has been diluted for application.	

2. Hazard Identification

GHS classification of the substance/mixture	TR2 Toxic to Reproduction: Category 2 CA2 Carcinogenicity: Category 2 IT 4 Acute Toxicity - Inhalation: Category 4 OT4 Acute Toxicity - Oral: Category 4 ED1 Eye Damage/Irritation: Category 1 SC-2 Skin Corrosion/Irritation: Category 2 AH1 Aspiration Hazard: Category 1 SS-1 Sensitization - Skin: Category 1 AC1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1 AA1 Hazardous to the Aquatic Environment - Acute Hazard: Category 1
Signal Word (s)	DANGER
Hazard Statement (s)	H361 Suspected of damaging fertility or the unborn child. H351 Suspected of causing cancer. H332 Harmful if inhaled. H302 Harmful if swallowed. H318 Causes serious eye damage. H315 Causes skin irritation. H304 May be fatal if swallowed and enters airways. H317 May cause an allergic skin reaction. AUH066 Repeated exposure may cause skin dryness or cracking H410 Very toxic to aquatic life with long lasting effects. H400 Very toxic to aquatic life.
General Precautionary Statement (s)	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use.
Pictogram (s)	Health hazard, Exclamation mark, Corrosion, Environment, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.



Precautionary statement – Prevention

P261 Avoid breathing mist/vapours/spray.
 P264 Wash hands and exposed skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves, clothing, eye and face protection.
 P272 Contaminated work clothing should not be allowed out of the workplace.

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Precautionary statement – Response	P308+P313 IF exposed or concerned: Get medical advice/attention. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P311 Call a POISON CENTER or doctor/physician. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330 Rinse mouth. P331 Do NOT induce vomiting. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P362 Take off contaminated clothing and wash before reuse.
Other Information	Poisons Schedule S6

3. Composition/information on ingredients

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Diflufenican	83164-33-4	25 g/L
	Bromoxynil present as the octanoate	1689-99-2	250 g/L
	N-methyl pyrrolidone		160 g/L
	Liquid Hydrocarbon	64742-94-5	434 g/L
	Other ingredients (considered non-hazardous)		0-10 %

4. First-aid measures

Inhalation	Remove affected person to fresh air until recovered. Obtain medical advice.
Ingestion	If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.
Skin	Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use. If irritation persists, seek medical advice.
Eye contact	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice.
Advice to Doctor	Treat symptomatically. If vomiting occurs, solvent present may cause pulmonary pneumonitis.

5. Fire-fighting measures

Suitable extinguishing media	Water fog, foam, carbon dioxide or dry chemical.
Hazards from Combustion Products	Combustible liquid at high temperatures. If involved in a fire, it will emit oxides of carbon and nitrogen, hydrogen chloride, hydrogen bromide and possibly other compounds of bromine, chlorine, fluorine and nitrogen.
Special Protective Equipment for fire fighters	Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.
Other Information	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. Accidental release measures

Spills & Disposal	Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal.
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7. Handling and storage

Precautions for Safe Handling For personal protective equipment (PPE) and hygiene advice, refer Section 8.

Conditions for safe storage, including any incompatibilities Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

Other Information Always read the label and any attached leaflet before use.

8. Exposure controls/personal protection

Occupational exposure limit values No exposure standards have been set for this product or the active ingredients.
The manufacturer of the solvent has recommended an occupational exposure limit of 100 mg/m³; - ppm TWA, as total hydrocarbon.
Safe Work Australia has set the following exposure standard for N-methyl pyrrolidone : TLV (TWA) 103 mg/m³, STEL 309 mg/m³. SK
'SK' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

Appropriate engineering controls Permissible Exposure Level (PEL) for diflufenican recommended by the manufacturer is 2.3 mg/m³.
Local exhaust ventilation may be required in confined spaces.

Personal Protective Equipment When preparing and using the product wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield.

Hygiene Measures After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
After each day's use, wash contaminated clothing and safety equipment.

Requirements Concerning Special Training Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

9. Physical and chemical properties

Form Liquid

Appearance Amber Liquid

Odour Hydrocarbon odour

Boiling Point 176 - 200°C (for solvent)

Solubility in Water Forms an emulsion in water.

Specific Gravity 1.15

pH 4 - 5

Vapour Pressure 0.19 mPa @ 25°C for bromoxynil octanoate;
0.00425 mPa for diflufenican.

Volatile Component ~60%

Partition Coefficient: n-octanol/water Kow Log P is 5.4 for bromoxynil octanoate, 4.9 for diflufenican

Flash Point 100°C

Flammability Combustible liquid C2. (AS1940 - 2017). A C2 combustible liquid is not a combustible liquid within the meaning of the Australian Code for the Transport of Dangerous Goods by Road & Rail.

Auto-Ignition Temperature Not determined

Explosion Properties No information

10. Stability and reactivity

Chemical Stability Stable under normal conditions.

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Possibility of hazardous reactions	Keep away from strong oxidising agents, may react violently.
Hazardous Polymerization	Hazardous polymerisation is not possible.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat) 490 mg/kg for the mixture (acute toxicity estimate)
Acute Toxicity - Dermal	LD50 (rat) >2000 mg/kg for bromoxynil octanoate LD50 (rat) >2000 mg/kg for diflufenican
Acute Toxicity - Inhalation	LC50 (rat) (4hr) 2.3 mg/l for the mixture (acute toxicity estimate)
Ingestion	Possible symptoms of exposure include: headache, nausea, dizziness and weakness. If aspirated into the lung, e.g. from vomiting, the presence of solvent may result in chemical pneumonitis or other lung damage.
Inhalation	Symptoms of exposure by inhalation are similar to those described for ingestion.
Skin	May irritate the skin. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.
Eye	May irritate the eyes.
Skin Sensitisation	The product is a skin sensitiser.
Reproductive Toxicity	Bromoxynil octanoate has been classified as suspected of damaging fertility or the unborn child on the basis of studies, in rats, rabbits and mice which show reduced ossification and increased incidence of supernumerary ribs at doses (range 5-15 mg/kg/day) which are not toxic maternally.
Chronic Effects	Chronic Overexposure: Weight loss and damage to liver and kidneys may be expected if exposure is excessive.
Serious eye damage/irritation	The product is an eye irritant.
Skin corrosion/irritation	Mild to moderate skin irritant.
Other Information	The Australian Acceptable Daily Intake (ADI) for bromoxynil for a human is 0.003 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.3 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Aust Govt Dept. of APVMA, 'ADI List', June 2018). ADI for diflufenican is 0.2 mg/kg/day, NOEL 16.3 mg/kg/day.

12. Ecological information

Persistence and degradability	Average soil half life of bromoxynil is 1 days.
Known Harmful Effects on the Environment	Harmful to fish and other aquatic organisms.
Other Precautions	Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
Environmental Protection	Marine pollutant. Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	The following is data for the active ingredient, bromoxynil octanoate. Toxic to fish. LC50 (96hr) for rainbow trout is 0.041 mg/l.
Acute Toxicity - Daphnia	LC50 (48hr) for daphnia is 0.046 mg/l for bromoxynil octanoate. LC50 (48hr) for daphnia is 0.24 mg/l for diflufenican.
Acute Toxicity - Other Organisms	Bees: Not toxic to bees. LD50 >100 µg/bee.

13. Disposal considerations

Product Disposal	On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a
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Container Disposal

need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

Do not use this container for any other purpose.

Triple or preferably pressure rinse inner bladder or containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility.

If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations.

DO NOT burn empty containers or product. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program.

Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage.

14. Transport information

Transport Information It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.

Storage and Transport Considered non dangerous for road and rail transport (in packaging, including IBCs not greater than 3000 Lt each) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.

UN Number (Sea Transport) For bulk shipments as Class 9, use UN 3082, HazChem code 2Z.
3082

IMO Class/Packing Group Class 9; Packing Group III

IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains Bromoxynil)

15. Regulatory information

Regulatory Information Australia: WHS regulations (2011) - Schedule 11: classification not listed.

Poisons Schedule S6

Packaging & Labelling POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Other Information This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 68142.

16. Other Information

Date of preparation or last revision of SDS Reviewed 25/10/2018
This SDS replaces document dated June 2017.

Contact Person/Point Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498

Revisions Highlighted The SDS was reviewed. Minor changes were made to the information.
Flammability classification updated in section 9.
...End Of MSDS...

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