

Infosafe No™ NUOCZ	Issue Date : March 2018	ISSUED by NUFARM
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 Product Name **BROMICIDE 200 Selective Herbicide**

Classified as hazardous

1. Identification

GHS Product Identifier	BROMICIDE 200 Selective Herbicide
Product Code	0235
Product Type	Group C 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 weeds in wheat, oats, barley, cereal rye and triticale (alone or undersown) grain sorghum, linseed, clover and lucerne pastures, turf, fallow, non-crop, roadsides and rights-of-way as per 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 OT4 Acute Toxicity - Oral: Category 4 IT3 Acute Toxicity - Inhalation: Category 3 ED2A Eye Damage/Irritation: Category 2A SS1 Sensitization - Skin: Category 1 SC-2 Skin Corrosion/Irritation: Category 2 AH1 Aspiration Hazard: Category 1 SE-3NARC STOT Single Exposure Category 3 (narcotic) AC2 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 2
Signal Word (s)	DANGER
Hazard Statement (s)	H361 Suspected of damaging fertility or the unborn child. H351 Suspected of causing cancer. H302 Harmful if swallowed. H331 Toxic if inhaled. H319 Causes serious eye irritation. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H304 May be fatal if swallowed and enters airways. H336 May cause drowsiness or dizziness. AUH066 Repeated exposure may cause skin dryness or cracking H411 Toxic to aquatic life with long lasting effects.
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, Skull and crossbones, Exclamation mark, Environment, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.



Precautionary statement – Prevention

P202 Do not handle until all safety precautions have been read and understood.
 P264 Wash hands and exposed skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves, clothing, eye and face protection.

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Precautionary statement – Response

P272 Contaminated work clothing should not be allowed out of the workplace.
 P260 Do not breathe spray.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P330 Rinse mouth.
 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.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P362 Take off contaminated clothing and wash before reuse.
 P363 Wash contaminated clothing before reuse.

Other Information

Poisons Schedule S6

3. Composition/information on ingredients

Chemical	Liquid		
Characterization			
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Bromoxynil present as the n-octanoyl ester	1689-99-2	200 g/L
	Liquid Hydrocarbon	64742-94-5	616 g/L
	Other ingredients (considered non-hazardous)		<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. If irritation persists consult a doctor.
First Aid Facilities	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
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 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
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disposal.

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; 17ppm TWA, as total hydrocarbon.

Appropriate engineering controls Handle in well ventilated areas, generally natural ventilation is adequate.

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 178 - 209°C (for solvent)

Solubility in Water Forms an emulsion in water.

Specific Gravity 1.030

pH 5 (1% in water)

Vapour Pressure 0.19 mPa @ 25°C for bromoxynil octanoate

Volatile Component ~60%

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

Flash Point 68°C

Flammability Combustible Liquid (GHS). Combustible liquid C1. (does not sustain combustion) AS1940.

Auto-Ignition Temperature Not determined

Flammable Limits - Lower 0.6% for solvent

Flammable Limits - Upper 7.0% for solvent

Explosion Properties No information

10. Stability and reactivity

Chemical Stability Stable under normal conditions.

Possibility of hazardous reactions Keep away from strong oxidising agents, may react violently.

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Hazardous Polymerization Hazardous polymerisation is not possible.

11. Toxicological Information

Acute Toxicity - Oral LD50 (rat) 238 mg/kg for bromoxynil octanoate

Acute Toxicity - Dermal LD50 (rat) >2000 mg/kg for bromoxynil octanoate

Acute Toxicity - Inhalation LC50 (rat) (4hr) 0.72 mg/l for bromoxynil octanoate

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 This product is a skin sensitiser.

Carcinogenicity An impurity present in the solvent has been found to cause tumors in laboratory studies. The active ingredient(s), bromoxynil is not considered carcinogenic.

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 Health, Office of Chemical Safety, 'ADI List', March 2016).

12. Ecological information

Persistence and degradability Average soil half life of bromoxynil is 7 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.

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.

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Container Disposal

Ideally, the product should be used for its intended purpose. If there is a 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 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, puncture or shred and bury containers in local authority landfill.

If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.

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.

Empty containers and product should not be burnt.

14. Transport information

Storage and Transport	Exempt from classification as a Dangerous Good in packs less than 3,000 kg or L as per ADG7, SP no. AU01. For bulk shipments as Class 9, use UN 3082, HazChem code 2Z.
UN Number (Sea Transport)	3082
IMO Class/Packing Group	Class 9; Packing Group III
IMO Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Bromoxynil octanoate)

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: 31614.

16. Other Information

Date of preparation or last revision of SDS	Revised 05/03/2018 This SDS replaces document dated December 2013.
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. Various changes were made to the information. ...End Of MSDS...

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