

Infosafe No™ NUOCZ	Issue Date : December 2013	ISSUED by NUFARM
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 Product Name **BROMICIDE 200 Selective Herbicide**

Classified as hazardous

## 1. Identification

<b>GHS Product Identifier</b>	BROMICIDE 200 Selective Herbicide
<b>Product Code</b>	0235
<b>Product Type</b>	Group C Herbicide
<b>Company Name</b>	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
<b>Address</b>	103-105 Pipe Road Laverton North Victoria 3026 Australia
<b>Telephone/Fax Number</b>	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
<b>Emergency phone number</b>	1800 033 498 (24hr Australia)
<b>Recommended use of the chemical and restrictions on use</b>	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.
<b>Other Information</b>	This Safety Data Sheet describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

## 2. Hazard Identification

<b>GHS classification of the substance/mixture</b>	Toxic to Reproduction: Category 2 Carcinogenicity: Category 2 Acute Toxicity - Oral: Category 4 Acute Toxicity - Inhalation: Category 3 Sensitization - Skin: Category 1 Skin Corrosion/Irritation: Category 2 Aspiration Hazard: Category 1 STOT Single Exposure Category 3 (narcotic)
<b>Signal Word (s)</b>	DANGER
<b>Hazard Statement (s)</b>	Suspected of damaging fertility or the unborn child. Suspected of causing cancer. Harmful if swallowed. Toxic if inhaled. Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Repeated exposure may cause skin dryness or cracking
<b>General Precautionary Statement (s)</b>	If medical advice is needed, have product container or label at hand. Keep out of reach of children.
<b>Pictogram (s)</b>	Health hazard, Skull and crossbones, Exclamation mark



### Precautionary statement – Prevention

Do not handle until all safety precautions have been read and understood.  
Wash hands and exposed skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves, clothing, eye and face protection.  
Contaminated work clothing should not be allowed out of the workplace.  
Do not breathe spray.

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**Precautionary statement – Response**

IF exposed or concerned: Get medical advice/attention.  
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
 Rinse mouth.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 Call a POISON CENTER or doctor/physician.  
 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: Wash with plenty of soap and water.  
 If skin irritation occurs: Get medical advice/attention.  
 Take off contaminated clothing and wash before reuse.  
 Wash contaminated clothing before reuse.

**Other Information** Poisons Schedule S6

### 3. Composition/information on ingredients

<b>Chemical Characterization</b>	Liquid		
<b>Ingredients</b>	<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 disposal.

### 7. Handling and storage

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**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/m<sup>3</sup>; 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 Cl. (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.

**Hazardous Polymerization** Hazardous polymerisation is not possible.

## 11. Toxicological Information

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<b>Acute Toxicity - Oral</b>	LD50 (rat) 238 mg/kg for bromoxynil octanoate
<b>Acute Toxicity - Dermal</b>	LD50 (rat) >2000 mg/kg for bromoxynil octanoate
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) 0.72 mg/l for bromoxynil octanoate
<b>Ingestion</b>	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.
<b>Inhalation</b>	Symptoms of exposure by inhalation are similar to those described for ingestion.
<b>Skin</b>	May irritate the skin. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.
<b>Eye</b>	May irritate the eyes.
<b>Skin Sensitisation</b>	This product is a skin sensitiser.
<b>Carcinogenicity</b>	An impurity present in the solvent has been found to cause tumors in laboratory studies. The active ingredient(s), bromoxynil is not considered carcinogenic.
<b>Reproductive Toxicity</b>	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.
<b>Chronic Effects</b>	Chronic Overexposure: Weight loss and damage to liver and kidneys may be expected if exposure is excessive.
<b>Serious eye damage/irritation</b>	The product is an eye irritant.
<b>Skin corrosion/irritation</b>	Mild to moderate skin irritant.
<b>Other Information</b>	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: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', September 2013).

## 12. Ecological information

<b>Persistence and degradability</b>	Average soil half life of bromoxynil is 7 days.
<b>Known Harmful Effects on the Environment</b>	Harmful to fish and other aquatic organisms.
<b>Other Precautions</b>	Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
<b>Environmental Protection</b>	Marine pollutant. Spray drift can cause damage, read the label for more information.
<b>Acute Toxicity - Fish</b>	The following is data for the active ingredient, bromoxynil octanoate. Toxic to fish. LC50 (96hr) for rainbow trout is 0.041 mg/l.
<b>Acute Toxicity - Daphnia</b>	LC50 (48hr) for daphnia is 0.046 mg/l for bromoxynil octanoate.
<b>Acute Toxicity - Other Organisms</b>	Bees: Not toxic to bees. LD50 >100 µg/bee.

## 13. Disposal considerations

<b>Product Disposal</b>	On site disposal of the concentrated product is not acceptable. 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®).
<b>Container Disposal</b>	Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the

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container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations.

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.

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.

Empty containers and product should not be burnt.

## 14. Transport information

<b>Storage and Transport</b>	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.
<b>UN Number (Sea Transport)</b>	3082
<b>IMO Class/Packing Group</b>	Class 9; Packing Group III
<b>IMO Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Bromoxynil octanoate)

## 15. Regulatory information

<b>Poisons Schedule</b>	S6
<b>Other Information</b>	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 31614.

## 16. Other Information

<b>Date of preparation or last revision of SDS</b>	Revised 11/12/2013 This SDS replaces document dated December 2008.
<b>Contact Person/Point</b>	Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498
<b>Revisions Highlighted</b>	The MSDS was reviewed. Various changes were made to the information. Document now issued under the GHS criteria. ...End Of MSDS...

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