

Infosafe No™ NU017	Issue Date : March 2016	ISSUED by NUFARM
--------------------	-------------------------	------------------

 Product Name **BROMICIDE MA Selective Herbicide**

Classified as hazardous

## 1. Identification

<b>GHS Product Identifier</b>	BROMICIDE MA Selective Herbicide
<b>Product Code</b>	0220
<b>Product Type</b>	Group C I 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, triticale, linseed, grass pastures and turf as per the Directions for Use table on the label.
<b>Other Information</b>	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

<b>GHS classification of the substance/mixture</b>	CA2 Carcinogenicity: Category 2 TR2 Toxic to Reproduction: Category 2 SS-1 Sensitization - Skin: Category 1 OT4 Acute Toxicity - Oral: Category 4 IT4 Acute Toxicity - Inhalation: Category 4 ED2A Eye Damage/Irritation: Category 2A SC-2 Skin Corrosion/Irritation: Category 2 AH1 Aspiration Hazard: Category 1 SE-3NARC STOT Single Exposure Category 3 (narcotic) AA1 Hazardous to the Aquatic Environment - Acute Hazard: Category 1 AC1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1 FL4 Flammable Liquids: Category 4
<b>Signal Word (s)</b>	DANGER
<b>Hazard Statement (s)</b>	H351 Suspected of causing cancer. H361 Suspected of damaging fertility or the unborn child. H317 May cause an allergic skin reaction. H302 Harmful if swallowed. H332 Harmful if inhaled. H319 Causes serious eye irritation. H315 Causes skin irritation. H304 May be fatal if swallowed and enters airways. AUH066 Repeated exposure may cause skin dryness or cracking H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H227 Combustible liquid
<b>General Precautionary Statement (s)</b>	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.
<b>Pictogram (s)</b>	Health hazard, Exclamation mark, Environment, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.



Infosafe No™ NU017	Issue Date : March 2016	ISSUED by NUFARM
--------------------	-------------------------	------------------

Product Name **BROMICIDE MA Selective Herbicide**

Classified as hazardous

<b>Precautionary statement – Prevention</b>	P261 Avoid breathing mists and spray. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves, clothing, eye and face protection. P264 Wash hands and exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P210 Keep away from flames and hot surfaces. - No smoking.
<b>Precautionary statement – Response</b>	P308+P313 IF exposed or concerned: Get medical advice/attention. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330 Rinse mouth. P331 Do NOT induce vomiting. 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.
<b>Other Information</b>	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
	MCPA (present as the ethyl hexyl ester)	94-74-6	200 g/L
	Liquid Hydrocarbon	64742-94-5	343 g/L
	Proprietary surfactant mixture		5-10 %

### 4. First-aid measures

<b>Inhalation</b>	Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice.
<b>Ingestion</b>	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.
<b>Skin</b>	Wash affected areas thoroughly with soap and water.
<b>Eye contact</b>	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice if irritation develops or persists.
<b>Advice to Doctor</b>	Treat symptomatically. If vomiting occurs, solvent present may cause pulmonary pneumonitis.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Hazards from Combustion Products</b>	Although material is not flammable, the concentrate is combustible. If involved in a fire, it will emit harmful fumes of hydrogen bromide, hydrogen chloride, hydrogen cyanide and possibly other compounds of bromine, chlorine and nitrogen. Keep upwind.
<b>Special Protective Equipment for fire fighters</b>	Breathable air apparatus may have to be worn in confined spaces.
<b>Other Information</b>	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

### 6. Accidental release measures

Infosafe No™ NU017	Issue Date : March 2016	ISSUED by NUFARM
--------------------	-------------------------	------------------

Product Name **BROMICIDE MA Selective Herbicide**

Classified as hazardous

<b>Spills &amp; Disposal</b>	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.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8.
<b>Clean-up Methods - Large Spillages</b>	If large liquid spills occur, attempt to recover as much spilt material from sumps and banded areas, as possible, before absorbing remaining material into vermiculite or other absorbent.
<b>Environmental Precautions</b>	This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

## 7. Handling and storage

<b>Precautions for Safe Handling</b>	Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.
<b>Other Information</b>	Always read the label and any attached leaflet before use.

## 8. Exposure controls/personal protection

<b>Occupational exposure limit values</b>	No exposure standard has been established for this product. The manufacturer of the solvent has recommended an occupational exposure limit of 100 mg/m <sup>3</sup> ; 17ppm TWA, as total hydrocarbon.
<b>Appropriate engineering controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate.
<b>Respiratory Protection</b>	Do not inhale spray mist.
<b>Personal Protective Equipment</b>	When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles.
<b>Hygiene Measures</b>	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.
<b>Requirements Concerning Special Training</b>	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

<b>Form</b>	Liquid
<b>Appearance</b>	Dark brown liquid
<b>Odour</b>	Typical solvent odour
<b>Melting Point</b>	<0 C
<b>Boiling Point</b>	190 - 270°C for solvent
<b>Solubility in Water</b>	Disperses in water.
<b>Specific Gravity</b>	1.07 - 1.09
<b>pH</b>	3.5 - 4.0 (1% solution)
<b>Vapour Pressure</b>	0.19 mPa @ 25°C Bromoxynil octanoate: 0.48 mPa @ 20°C MCPA 2EHE.
<b>Vapour Density (Air=1)</b>	~5 (for solvent present)
<b>Volatile Component</b>	30 - 40%
<b>Partition Coefficient: n-octanol/water</b>	Kow Log P is 5.4 for bromoxynil octanoate; 5.7 for MCPA 2EHE
<b>Flash Point</b>	75°C
<b>Flammability</b>	Combustible liquid C1. (AS1940). Combustible Liquid (GHS).

Infosafe No™ NU017	Issue Date : March 2016	ISSUED by NUFARM
--------------------	-------------------------	------------------

Product Name **BROMICIDE MA Selective Herbicide**

Classified as hazardous

<b>Auto-Ignition Temperature</b>	Not determined
<b>Flammable Limits - Lower</b>	0.6% for solvent
<b>Flammable Limits - Upper</b>	7.0% for solvent
<b>Explosion Properties</b>	No information

## 10. Stability and reactivity

<b>Chemical Stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Violent reactions between Bromicide MA and oxidising agents are possible. Avoid chlorates, nitrates, nitric acid, organic peroxides and potassium chlorate.
<b>Hazardous Polymerization</b>	Hazardous polymerisation is not possible.

## 11. Toxicological Information

<b>Acute Toxicity - Oral</b>	LD50 (rat) 238 mg/kg for bromoxynil octanoate LD50 (rat) 1300 mg/kg for MCPA 2EHE
<b>Acute Toxicity - Dermal</b>	LD50 (rat) >2000 mg/kg for bromoxynil octanoate LD50 (rat) >2000 mg/kg for MCPA 2EHE
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) 0.72 mg/l for bromoxynil octanoate LC50 (rat) (4hr) >3.1 mg/l for MCPA 2EHE
<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>	High vapour concentrations of the solvent while handling the concentrate are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, and may have other central nervous system effects.
<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>	Bromoxynil octanoate is a skin sensitiser.
<b>Carcinogenicity</b>	An impurity present in the solvent has been found to cause tumors in laboratory studies. The active ingredients are 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', December 2014). ADI for MCPA is 0.01 mg/kg/day, NOEL 1.1 mg/kg/day.

## 12. Ecological information

<b>Known Harmful Effects on the Environment</b>	Harmful to fish and other aquatic organisms.
<b>Other Precautions</b>	Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.

Infosafe No™ NU017	Issue Date : March 2016	ISSUED by NUFARM
--------------------	-------------------------	------------------

Product Name **BROMICIDE MA Selective Herbicide**

Classified as hazardous

<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. LC50 (96hr) for rainbow trout is 1.15 mg/l for MCPA 2EHE
<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 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. Empty containers and product should not be burnt. Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage. 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.

### 14. Transport information

<b>Transport Information Storage and Transport</b>	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs. 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.
<b>UN Number (Sea Transport)</b>	For bulk shipments as Class 9, use UN 3082, HazChem code 2Z. 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>Regulatory Information</b>	WHS Schedule 11: item 10 - Flammable Liquid category 4 .
<b>Poisons Schedule</b>	S6
<b>Packaging &amp; Labelling</b>	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
<b>Other Information</b>	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 31464.

### 16. Other Information



# Safety Data Sheet

infosafe  
CS: 1.7.2

Page: 6 of 6

Infosafe No™ NU017	Issue Date : March 2016	ISSUED by NUFARM
--------------------	-------------------------	------------------

Product Name **BROMICIDE MA Selective Herbicide**

Classified as hazardous

**Date of preparation** Revised 08/03/2016.

**or last revision of** This SDS replaces document dated July 2011.

**SDS**

**Contact Person/Point** Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000

After Hours: Shift Supervisor Phone: 1800 033 498

**Revisions** The SDS was reviewed to include GHS requirements.

**Highlighted**

...End Of MSDS...

© Copyright ACOHS Pty Ltd

Copyright in the source code of the HTML, PDF, XML, XFO and any other electronic files rendered by an Infosafe system for Infosafe MSDS displayed is the intellectual property of Acohs Pty Ltd.

Copyright in the layout, presentation and appearance of each Infosafe MSDS displayed is the intellectual property of Acohs Pty Ltd. The compilation of MSDS's displayed is the intellectual property of Acohs Pty Ltd.

Copying of any MSDS displayed is permitted for personal use only and otherwise is not permitted. In particular the MSDS's displayed cannot be copied for the purpose of sale or licence or for inclusion as part of a collection of MSDS without the express written consent of Acohs Pty Ltd.