

Infosafe No™ 3NU1E	Issue Date : February 2018	ISSUED by NUFARM
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 Product Name **BROADSIDE Herbicide**

Classified as hazardous

## 1. Identification

<b>GHS Product Identifier</b>	BROADSIDE Herbicide
<b>Product Code</b>	0145
<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 certain broadleaf weeds in wheat, barley, cereal rye, oats, triticale 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>	OT4 Acute Toxicity - Oral: Category 4 DT4 Acute Toxicity - Dermal: Category 4 SS-1 Sensitization - Skin: Category 1 IT 4 Acute Toxicity - Inhalation: Category 4 TR2 Toxic to Reproduction: Category 2 ED1 Eye Damage/Irritation: Category 1 CA2 Carcinogenicity: Category 2 AH1 Aspiration Hazard: Category 1 SE-3NARC STOT Single Exposure Category 3 (narcotic) FL4 Flammable Liquids: Category 4
<b>Signal Word (s)</b>	DANGER
<b>Hazard Statement (s)</b>	H302 Harmful if swallowed. H312 Harmful in contact with skin. H317 May cause an allergic skin reaction. H332 Harmful if inhaled. H361 Suspected of damaging fertility or the unborn child. H318 Causes serious eye damage. H351 Suspected of causing cancer. H304 May be fatal if swallowed and enters airways. AUH066 Repeated exposure may cause skin dryness or cracking. H336 May cause drowsiness or dizziness. 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>	Corrosion, Exclamation mark, Health hazard, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.



### Precautionary statement – Prevention

P264 Wash hands and exposed skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P261 Avoid breathing spray.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P281 Use personal protective equipment as required.

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**Precautionary statement – Response**

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.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
 P363 Wash contaminated clothing before reuse.  
 P333+P313 If skin irritation or rash occurs: 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.  
 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.

**Other Information** Poisons Schedule S6

### 3. Composition/information on ingredients

Chemical Characterization Ingredients	Liquid	Name	CAS	Proportion
		MCPA (present as the iso-octyl ester)	94-74-6	280 g/L
		Bromoxynil (present as the octanoate ester)	1689-99-2	140 g/L
		Dicamba (present as the acid)	1918-00-9	40 g/L
		Hydrocarbon Liquid	64742-94-5	264.9 g/L
		Proprietary surfactant mixture (non-hazardous)		5-10 %

### 4. First-aid measures

**Inhalation** Remove to fresh air, apply artificial respiration if necessary. Obtain medical assistance.

**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. The above first aid instructions are mandated by the Commonwealth Department of Health and Ageing via the National Drugs and Poisons Schedule. These instructions are suitable for ingestion of spray solution and small amounts of concentrate; however, if SUBSTANTIAL AMOUNTS of the concentrate have been swallowed (more than about 15ml) AND if medical assistance is more than 30 minutes away, the induction of vomiting should be CONSIDERED, preferably based on MEDICAL ADVICE if a physician can be contacted by phone. All care must be taken to prevent vomit from being inhaled. Do not give anything by mouth to a semi-conscious or unconscious person.

**Skin** Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use.

**Eye contact** 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.

**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** Although material is not flammable, the concentrate is combustible. Keep upwind. If involved in a fire, it will emit toxic fumes of hydrogen bromide, hydrogen chloride, hydrogen cyanide or other compounds of bromine, chlorine and nitrogen.

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<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

<b>Spills &amp; Disposal</b>	Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect in sealed open top 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 bunded areas, as possible, before absorbing remaining material into vermiculite or other absorbent.
<b>Environmental Precautions</b>	Prevent from entering drains, waterways or sewers. Use earthen bunds or absorbent bunding to prevent spreading of spillage.

## 7. Handling and storage

<b>Precautions for Safe Handling</b>	For personal protective equipment (PPE) and hygiene advice, refer Section 8.
<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. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs.
<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 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.
<b>Appropriate engineering controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate.
<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>	Clear, dark-brown liquid
<b>Odour</b>	Typical solvent odour
<b>Melting Point</b>	<0°C
<b>Boiling Point</b>	190-270°C (for solvent present)
<b>Solubility in Water</b>	Forms an emulsion in water.
<b>Specific Gravity</b>	1.089
<b>pH</b>	Neutral
<b>Vapour Pressure</b>	0.48 mPa @ 20°C MCPA iso-octyl ester; 0.19 mPa @ 25°C Bromoxynil octanoate; 1.67 @ 25°C mPa Dicamba.
<b>Vapour Density (Air=1)</b>	~5 (for solvent present)

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<b>Volatile Component</b>	~30% v/v
<b>Flash Point</b>	75°C (PMCC)
<b>Flammability</b>	Combustible Liquid (GHS). Combustible liquid C1.
<b>Auto-Ignition Temperature</b>	Not known

## 10. Stability and reactivity

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

## 11. Toxicological Information

<b>Acute Toxicity - Oral</b>	LD50 (rat) 2235 mg/kg for MCPA iso-octyl ester LD50 (rat) 365 mg/kg for bromoxynil octanoate LD50 (rat) 1707 mg/kg for dicamba
<b>Acute Toxicity - Dermal</b>	LD50 (rabbit) >2000 mg/kg for dicamba and MCPA iso-octyl ester LD50 (rabbit) 1675 mg/kg for bromoxynil octanoate LD50 (rat) >2000 mg/kg for bromoxynil octanoate
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) >3.1 mg/l for MCPA iso-octyl ester LC50 (rat) (4hr) 0.72 mg/l for bromoxynil octanoate LC50 (rat) (4hr) >9.6 mg/l for dicamba
<b>Ingestion</b>	The concentrate is harmful if swallowed. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. However, swallowing of large amounts may cause injury. If aspirated into the lung, e.g. from vomiting, the presence of solvent may result in chemical pneumonitis.
<b>Inhalation</b>	The components of the product are of low volatility and no adverse effects are expected from handling the concentrate. In confined spaces, some discomfort may occur due to the presence of some solvent vapour. The product may constitute a moderate hazard during spraying operations.
<b>Skin</b>	Acute dermal toxicity has not been determined for this product; based on data available for its components, dermal toxicity is expected to be harmful. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis. The concentrated product may cause slight irritation on contact.
<b>Eye</b>	The concentrate may cause irritation of the eyes. Prolonged contact with the concentrate may cause damage to the eye.
<b>Skin Sensitisation</b>	MCPA iso-octyl ester 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), MCPA, Dicamba and bromoxynil octanoate is not considered carcinogenic.
<b>Reproductive Toxicity</b>	Bromoxynil octanoate has been assigned Toxic to Reproduction Category 2 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>Mutagenicity</b>	The weight of evidence indicates that the product does not present a mutagenic risk.
<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

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Safety, 'ADI List', March 2016).  
 ADI for MCPA is 0.01 mg/kg/day, NOEL 1.1 mg/kg/day.  
 ADI for dicamba is 0.03 mg/kg/day, NOEL 3 mg/kg/day.

## 12. Ecological information

<b>Known Harmful Effects on the Environment</b>	The product is a marine pollutant for sea transport.
<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>	Spray drift can cause damage, read the label for more information.
<b>Acute Toxicity - Fish</b>	LC50 (96hr) for rainbow trout is 135 mg/l for dicamba LC50 (96hr) for rainbow trout is 1.15 mg/l for MCPA iso-octyl ester LC50 (96hr) for rainbow trout is 0.041 mg/l for bromoxynil octanoate
<b>Acute Toxicity - Other Organisms</b>	Not toxic to bees. Not toxic to birds.

## 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 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, 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

<b>Transport Information</b>	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
<b>Storage and Transport</b>	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 Marine Pollutant</b>	Marine Pollutant
<b>IMO Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Bromoxynil octanoate)

## 15. Regulatory information

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<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: 49908.

## 16. Other Information

<b>Date of preparation or last revision of SDS</b>	Revised 28/02/2018 This SDS replaces document dated March 2016
<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 SDS was reviewed. Minor changes were made to the information.  ...End Of MSDS...

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