


**Section 1: Identification: Product identifier and chemical identity**

<b>Product Identifier:</b>	<b>CHOICE LAUNDER MA SELECTIVE HERBICIDE</b>
<b>Other Means of Identification:</b>	Agricultural herbicide. Grow Choice product code number: 381 AVPMA registered number: 84403
<b>Recommended 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>Details of manufacturer or importer:</b>	<b>Grow Choice Pty Ltd</b> ABN 36 161 264 884
<b>Address:</b>	<b>113 Fitzroy Street</b> <b>TAMWORTH NSW 2340</b> <b>AUSTRALIA</b>
<b>Website:</b>	<b>www.growchoice.com.au</b>
<b>Phone Number:</b>	<b>(02) 6766 3979</b>
<b>Emergency Phone Number:</b>	<b>24 hours - 1800 033 111</b>

**Section 2: Hazards identification**

<b>Classification of the substance or mixture in accordance with Australian GHS Regulation:</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>Label elements:</b>	Hazard label for supply/use required.
<b>Hazardous components which must be listed on the label:</b>	Active constituents: 250g/L Bromoxynil present as the octanoate; 25g/L Diflufenican Solvents: 397g/L liquid hydrocarbons; 175g/L N-Methyl-Pyrrolidone
<b>Signal word:</b>	Danger
<b>Hazard statements:</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.

	<p>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</p>
<b>General precautionary statements:</b>	<p>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.</p>
<b>Precautionary statement – Prevention</b>	<p>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.</p>
<b>Precautionary statement – Response</b>	<p>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.</p>
<b>Other information:</b>	Poisons Schedule S6

### Section 3: Composition and information on ingredients

<b>Chemical Nature</b>	Liquid	
<b>Chemical Name</b>	<b>CAS No.</b>	<b>Concentration</b>
Bromoxynil present as the n-octanoyl ester	1689-99-2	200g/L
MCPA (present as the ethyl hexyl ester)	94-74-6	200g/L
Liquid Hydrocarbon	64742-94-5	343g/L
Proprietary surfactant mixture		5-10%

### Section 4: First aid measures

<b>Description of necessary First Aid measures:</b>	<p>In case of poisoning by any exposure route contact a doctor or Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment.</p> <p><b>Inhalation:</b> Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice.</p>
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<b>Skin contact:</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>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>Advice to Doctor:</b>	Treat symptomatically. If vomiting occurs, solvent present may cause pulmonary pneumonitis.

## Section 5: Fire fighting measures

<b>Suitable extinguishing equipment:</b>	Water fog, foam, carbon dioxide or dry chemical.
<b>Specific hazards arising from the 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 and precautions for Fire Fighters:</b>	Breathable air apparatus may have to be worn in confined spaces.
<b>Further information:</b>	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

## Section 6: Accidental release measures

<b>Spills and 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 precautions, protective equipment and emergency procedure:</b>	For appropriate personal protective equipment (PPE), refer Section 8.
<b>Environmental precautions:</b>	This product is a herbicide and spills can damage crops, pastures and desirable vegetation.
<b>Methods for cleaning up or taking up – 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.

## Section 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>Requirements for safe storage:</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.

## Section 8: Exposure controls and 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>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>Special training requirements:</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.

## Section 9: Physical and chemical properties

<b>Appearance:</b>	Dark brown liquid	<b>pH:</b>	3.5 – 4.0 (1% solution)
<b>Odour:</b>	Typical solvent odour	<b>Melting point:</b>	<0°C
<b>Solubility in water:</b>	Disburses in water	<b>Boiling point:</b>	190 - 270°C (for solvent)
<b>Auto-Ignition Temperature:</b>	Not determined	<b>Explosive Properties:</b>	No information
<b>Flash Point:</b>	75°C	<b>Specific gravity:</b>	1.07 – 1.09
<b>Volatile Component:</b>	~30 - 40%	<b>Vapour density (Air =1)</b>	-5 (for solvent present)
<b>Flammability:</b>	Combustible liquid C1 (AS1940). Combustible liquid (GHS).	<b>Flammable limits:</b>	Lower: 0.6% for solvent Upper: 7.0% for solvent
<b>Vapour pressure:</b>	0.19 mPa @ 25°C for bromoxynil octanoate; 0.48 mPa @ 20°C for MCPA 2EHE	<b>Partitioning coefficient: n-octanol/water:</b>	Kow Log P is 5.4 for bromoxynil octanoate, 5.7 for MCPA 2EHE.

## Section 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

## Section 11: Toxicological information

<b>Health Effects from likely Routes of Exposure:</b>	
<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>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>Serious eye damage / irritation</b>	The product is an eye irritant.
<b>Skin Corrosion / irritation:</b>	Mild to moderate skin irritant.
<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>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>Chronic health effects:</b>	Chronic Overexposure: Weight loss and damage to liver and kidneys may be expected if exposure is excessive.
<b>Additional toxicological 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.

## Section 12: Ecological information

<b><u>Ecotoxicity:</u></b>	
<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.
<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 to other organisms:</b>	Bees: Not toxic to bees. LD50 >100 µg/bee.

## Section 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®).
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**Container Disposal:**

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.

## Section 14: Transport information

**Transport information:**

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 3000L each) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.

For bulk shipments as Class 9, use UN 3082, HazChem code 2Z.

**SEA TRANSPORT: IMDG**

<b>Hazard class:</b>	9	<b>Packing group:</b>	III
<b>ID number:</b>	UN 3082	<b>Proper shipping name:</b>	Environmentally Hazardous Substance, Liquid, N.O.S. (contains Bromoxynil octanoate)
<b>Marine pollutant:</b>	YES		

## Section 15: Regulatory information

<b>Regulatory Information:</b>	WHS Schedule 11: item 10 - Flammable Liquid category 4.
<b>Poisons Schedule (SUSMP):</b>	S6
<b>Packaging and labelling:</b>	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTION BEFORE OPENING OR USING
<b>Other information:</b>	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 84403

## Section 16: Any other relevant information

**Date of preparation or last revision:** August 2018

**Source of Data:** The information provided in this SDS is sourced from Grow Choice internal studies which have been conducted according to Regulatory requirements including OECD and CIPAC Guidelines and EC Directives. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

**Note:** This product is a registered agricultural chemical and must, therefore, be used in accordance with the container label directions

**CONTACT POINT:** Grow Choice Pty Ltd  
(02) 6766 3979  
**24 HOUR EMERGENCY CONTACT: 1800 033 111**

This Material Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

**DISCLAIMER**

This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. Grow Choice's liability for breach of the express or any non-excludable implied warranty is limited to product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which Grow Choice shall have no liability.

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