Safety Data Sheet

In accordance with Safe Work Australia

1. Product identifier & identity for the chemical

Product Identifier	**Pattochoice MA**
Active Constituent	**MCPA present as the potassium salt 160.0 g/L** **Terbutryn 275.0 g/L**
Other means of Identification	Agricultural herbicide. Grow Choice product code number: 3620 AVPMA registered number: 63427
Recommended use of the chemical and restrictions on use	For the control of seedling broadleaf weeds in wheat, barley, some varieties of oats, pasture and sugar cane as specified in the Directions for Use label.
Suppliers name, address and phone number:	Grow Choice Pty Ltd 113 Fitzroy Street | TAMWORTH NSW 2340 Phone: 02 6766 3979 1800 817 676 Fax: 02 6766 2922 | Email: rfagan@growchoice.com.au
Emergency phone number:	In Case Of Emergency Dial 000
Poisons Information Centre	Phone: 13 11 26 and speak to a Poisons Information Specialist. Fax: +61 2 9845 3597 http://www.chw.edu.au/poisons/contact.htm

2. Hazard Identification (continued on page 2)

Refer to Section 14

Classified as **HAZARDOUS** in accordance with the *Approved Criteria for Classifying Hazardous Substances* [NOHSC: 1008(2004] *3rd Edition* and the Globally Harmonized System of Classification and Labelling of Chemicals (the GHS).

Not classified as a Dangerous Good in packs less than 3,000 kg or litres under the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Classified as a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA).

Summary of Hazardous Identifications	ADG UN number: **3082**. Poisons Schedule number: **S5**
Classification of the hazardous chemical	Acute toxicity – category 4 Skin irritation – category 2 Eye damage – category 1 Hazardous to the aquatic environment (acute) – category 1 Hazardous to the aquatic environment (chronic) – category 1
GHS symbol	Corrosion Exclamation Mark Environment 
Signal words	**Corrosive** **Health** **Environmental** **Danger**
General Precautionary Statements.	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use
Hazard Statements	H302**: Harmful if swallowed** H315**: Causes skin irritation** H318**: Causes serious eye damage** H410**: Very toxic to aquatic life with long lasting effects**
Prevention Statements	P264: **Wash hands, arms, face and any parts of the body exposed to product thoroughly after handling.** P270: **Do not eat, drink or smoke when using this product**. P280: **Wear protective gloves.** AS/NZS 2161, Industrial safety gloves and mittens (not electrical and medical gloves)
Response Statements	P301 + P312: **IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.** P330: **Rinse mouth** P302 + P352: **IF ON SKIN: Wash with plenty of soap and water.** P321: **Specific treatment (see Section 4 for First Aid treatment)** P332 + P313: **If skin irritation occurs: Get medical advice/attention.** P362: **Take off contaminated clothing and wash before reuse.** 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.**

Storage Statements Store in tightly sealed original containers in a dry secure place away from fertilizers, feed and food. Store out of direct sunlight and extreme temperature.

Disposal Statements P501: **Dispose of contents and container in accordance with local, regional and national regulations.**

3. Composition/information on ingredients

Chemical ingredients: CAS number and other unique identifiers: Concentration of ingredients:

Component	CAS No	Proportion
Terbutryn	886-50-0	275 g/L
MCPA (present as Potassium salt)	94-74-6	160g/L
Propylene glycol	57-55-6	0-10%
Other ingredients considered non hazardous		10-30%

4. First Aid Measures

Swallow If swallowed, **DO NOT** induce vomiting. Rinse mouth out with water if patient is conscious. Seek urgent medical attention. Do not allow vomit to enter lungs by careful placement of patient.

Eye: If product gets in eyes, remove contact lenses if wearing and wash it out immediately with water for at least 15 minutes. Seek medical attention.

Skin: Remove contaminated clothing and wash affected areas thoroughly with soap and water. Seek medical attention if concerned. Wash contaminated clothing before reuse.

Inhaled Move affected person to fresh air and keep at rest until recovered. Obtain medical advice if at all worried.

Medical Attention and Special Treatment In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: 13 11 26 and speak to a Poisons Information Specialist with a copy of this SDS or chemical Label.

5. Fire Fighting Measures

Suitable extinguishing media The product is not flammable. If involved in a fire choose extinguishing media suitable to the burning material.

Specific hazards arising from the chemical If product is involved in a major fire, it could evolve oxides of carbon or nitrogen.

Special protective equipment and precautions for fire fighters Fire fighters should wear Safe Work Australia approved self-contained breathing apparatus (AS/NZS 1715/1716) and full protective gear. Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Contamination of water bodies should be avoided.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Environmental precautions
In case of spillage it is important to take all steps necessary to:
Instruct and ensure all bystanders to keep away from and upwind of spill/leak.
Avoid eye and skin contact;
Do not breath dust;
Ensure adequate ventilation;
Avoid contamination of waterways.
Refer to Section 8 for Personal Protection Equipment (PPE).

Methods and materials for containment and cleaning up
Reposition any leaking containers so as to minimise leakage.
Dam and absorb spill with an absorbent material (eg sand or soil).
Collect in a suitable, closed container to dispose and clean the spilled area with water.

Environmental Precautions **Prevent from entering drains, waterways or sewers.**

7. Handling and Storage

Precautions for safe handling
Safe work practices are recommended.
Avoid contact with eyes and skin.
When opening the container and preparing spray wear appropriate PPE (refer Section 8).
Do not spray under high wind conditions.
Hygiene measures:
When using products, do not eat, drink or smoke.
Contaminated work clothing should not be allowed out of the workplace.
Wash hands thoroughly with soap and water after use and before eating, drinking, smoking/using tobacco, chewing gum, using the toilet or applying cosmetics.
After each day's use, wash gloves, face shield or goggles and contaminated clothing.
Avoid contact with eyes and skin.

Conditions for safe storage, including any incompatibilities:
Keep out of reach of children, unauthorised persons and animals.
Store in tightly sealed original containers in a dry secure place away from fertilizers, feed and food.
Store out of direct sunlight and extreme temperature.
Always read the label and any attached leaflet before use.

8. Exposure controls/personal protection (continued on page 3)

Control parameters – exposure standards, biological monitoring An exposure standard has been set for propylene glycol (particulates) at TWA 10 mg/m3.

Appropriate engineering controls Control process conditions to avoid contact. Use in a well-ventilated area only. Use local exhaust ventilation to keep exposure levels below the exposure limits above.

Personal protective equipment (PPE) Do not inhale spray mist.

When opening the container, preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC chemical resistant and face shield or goggles.
When using the prepared spray cotton overalls buttoned to the neck and wrist and a washable hat and optional once chemical is prepared for use, elbow length PVC chemical resistant and face shield or goggles if protected from spray drift/contamination.

Face and Eye Protection: Face shield or goggles.
Clothing: Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat.
Gloves: Elbow-length chemical resistant PVC gloves.
Respiratory: If airborne concentrations are likely to exceed the exposure standards above or if exposed to dust, an AS/NZS 1715/1716 approved respirator should be worn.

Recommended to use Australian and New Zealand Standard PPE:

Overalls	AS 3765, Clothing for protection against Hazardous chemicals
Gloves:	AS/NZS 2161, Industrial safety gloves and mittens (not electrical and medical gloves)
Goggles and face shield	As/NZS 1337, Eye protectors for industrial applications.
Footwear	AS/NZS 2210, Occupational protective footwear
Respirators	AS NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices AS/NZS 1716, Respiratory Protective Devices

Requirements Concerning Training: Check State and/or Territory regulations that require people who use pesticides in their job or business to have adequate training in the application of the materials.

9. Physical and chemical properties

Appearance, form, colour and odour	Liquid, opaque yellow in colour with an amine odour
pH (1% deion. Water);	8 - 10
Melting point	Not applicable
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability	Nonflammable, non-combustible liquid
Vapour pressure	0.225 mPa @ 25°C for Terbutryn. MCPA is not volatile.
Behaviour in water	Disperses in water
Relative density	No data available
Solubility in water	Disperses in water
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

10. Stability and Reactivity

Chemical stability	Product is considered stable in ambient conditions for a period of at least two years after manufacture.
Conditions to avoid	Do not store product in direct sunlight for prolonged periods.
Incompatible materials and possible hazardous reactions	Strong acids, strong bases and strong oxidising agents. Reaction of the concentrate or spray mix with acids will precipitate solid MCPA and significantly deactivate the product and cause blockages in spray equipment. Forms an alkaline solution with water which may corrode aluminum and zinc. No special considerations.
Hazardous decomposition products	Unlikely to decompose until heated to dryness. On further heating, product will emit toxic fumes. Hazardous polymerization is not possible.

11. Toxicological information (continued on page 4)

No harmful effects are expected if the precautions on the label and the SDS are followed. Inhalation The components of the product are of low volatility and no adverse effects are expected from handling the concentrate. However, care should be taken to avoid the inhalation of excessive amounts of spray mist during field spraying, respiratory irritation may occur. Inhalation Other Information

Information on routes of exposure and symptoms related to exposure	**Ingestion**: The concentrate is of low toxicity if swallowed. Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. May cause irritation to mouth, throat and stomach. Ingestion of the concentrate in relatively large amounts can result in liver, heart and kidney damage, unconsciousness and death. **Skin:** May irritate the skin. Prolonged contact with the concentrate may result in absorption of MCPA in harmful amounts. **Eye:** The concentrate will cause severe irritation and possible damage unless washed off immediately.
Chronic exposure **Immediate, delayed and chronic health effects from exposure**	**Chronic Effects:** Liver and kidney damage has been noted in laboratory animals that have been fed excessive doses of MCPA. Repeated exposure may cause allergic disorders. Mutagenicity In vitro and in vivo mutagenicity, genotoxicity and clastogenicity assay results indicate that terbutryn is not mutagenic. The weight of evidence indicates that MCPA does not present a mutagenic risk.
Carcinogenicity	The weight of the evidence indicates that terbutryn and/or MCPA is not carcinogenic.
Exposure Levels	**Acute Toxicity – Oral** LD50 (rat) 2500 mg/kg for terbutryn LD50 (rat) 700 mg/kg for MCPA **Acute Toxicity Dermal** LD50 (rat) >2000 mg/kg for terbutryn LD50 (rat) >1000 mg/kg for MCPA **Acute Toxicity** –

Data limitations	LC50 (rat) (4hr) >2.2 mg/1 for terburtryn The Australian Acceptable Daily Intake (ADI) for **Terbutryn** for a human is 0.1 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 10 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. ADI for **MCPA** is 0.01 mg/kg/day, NOEL 1.1 mg/kg/day (Ref: Comm. Dept. of Health and Ageing, 'ADI List", TGA, 30 June 2014.

12. Ecological information

Eco toxicity **Persistence and degradability** **Bio -accumulative potential** **Mobility in soil**	**Environmental Toxicology:** Terbutryn do not appear to pose any threat to birds. MCPA is moderately toxic to birds. **Aquatic toxicity:** LC50 (96 hr) for rainbow trout 1 - .14 mg/L **Terbutryn** and 232 mg/L **MCPA** LC50 (96 hr) for bluegill sunfish - 4 mg/L > 135 mg/L EC50 (48 hr) for daphnia magna - 2.66 mg/L > 190 mg/L EC50 (72 hr) for algae 0.0024 m/l. Not toxic to birds Not toxic to bees. LD >100 ug/bee **Environmental Fate:** Average field half-life of terbutryn is 14 – 50 days and for MCPA less than 7 days. Do not contaminate dams, waterways or sewers with this product.

13. Disposal considerations (continued on page 4)

Disposal of product	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®).
Disposal of Container	Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the 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. 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.

14. Transport information

It is considered good practice not to transport agricultural chemical products with food, food related materials and animal feed products.

Road and Rail Transport	This product is exempt from classification as a Dangerous Good in packs less than 3,000 kg or litres under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is a class 9, UN 3082. (See special provision AU01). Marine and Air Transport.
Marine and Air Transport	This product is classified as a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:- UN 3082, Class 9 (Miscellaneous Dangerous Goods), Packing Group: III. Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Terbutryn). Hazchem code: ●3Z. Hazard Identification Number (HIN): 90

15. Regulatory information

Poisons Schedule number	Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) – Poison Schedule: **S5**

16. Other information

Date of Review	This Safety Data Sheet (SDS) was completed April 2015 and replaces Material Safety Data Sheet 17/6/10.

Acronyms:

AVPMA: Australian Pesticides and Veterinary Medicines Authority.
GHS: Globally Harmonised system of Classification and Labelling of chemicals
HSIS: Hazardous Substances Information System
NOHSC: National Occupational Health and Safety Commission
CAS No.: unique numerical identifier assigned by Chemical Abstracts Service (division of the American Chemical Society)
TWA: Exposure Standard - time weighted average concentration over an eight hour working day, for a five day working week over an entire working life.
STEL Exposure standard - short term exposure limit.
mg/m3 Milligrams of substance per cubic metre of air at 25°C and one atmosphere pressure. The value is exact.
AS/NZS: Australian Standards and New Zealand Standards for Personal protective equipment
ADI: Acceptable Daily Intakes For Agricultural And Veterinary Chemicals
EMS Number:
ADG: Australian Dangerous Goods
IMDG: International Maritime Code of Dangerous Goods
IATA: International Air Transport Association

End of SDS