Safety Data Sheet

In accordance with Safe Work Australia

1. Product identifier & identity for the chemical

Product Identifier	**Choice MCPA 750**
Active Constituent	750 g/L MCPA present as the dimethylamine salt
Other means of Identification	Agricultural herbicide. Grow Choice product code number: 5002 AVPMA registered number: 64831/57008
Recommended use of the chemical and restrictions on due	For the selective control of broadleaf weeds in cereals, linseed, pastures, sugar cane and turf as per Directions For Use table.
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: admin@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

- 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).
- Considered non-dangerous for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)
- Considered **DANGEROUS** for transport by sea and air in accordance with the IMDG Code 37-14 (refer Section 14)

Summary of Hazardous Identifications	IMDG UN number: Poisons Schedule number: **S6**
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 code and word	GHS05 **Corrosive** GHS07 **Health hazards** GHS09 **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
Precautionary Code and 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 Precautionary statement and response	P264: **Wash hands and any body part exposed to product thoroughly with soap and water after handling.** P270 **Do not eat, drink or smoke when using this product.** P280: **Wear protective gloves. Refer Section 8** P301 + P312 **IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell**. P330 **Rinse mouth**. P321: **Specific treatment – Refer to Section 4** 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	No storage specified. Refer to Section 7
Disposal	P501 **Dispose of contents: DO NOT dispose of undiluted chemicals on site. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals. Refer Section 13.**

3. Composition/information on ingredients

	Component	CAS No	Proportion
Chemical ingredients: **CAS number and other unique identifiers:**	MCPA present as dimethylamine salt	94-74-6	750 g/L
Concentration of ingredients:	Other ingredients determined not to be hazardous		Balance

4. First Aid Measures

Summary Harmful if absorbed by skin contact, inhaled or swallowed. Will irritate the eyes and skin. DO NOT inhale vapor. Repeated exposure may cause allergic disorders. When opening the container and preparing the spray wear PPE refer to Section 8. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield and contaminated clothing.

Swallow If swallowed do **NOT** induce vomiting; seek medical advice immediately and show container, label and this document. Make every effort to prevent vomit from entering the lungs by careful placement of the patient. Rinse mouth thoroughly with water.

Eye: If product gets in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical attention.

Skin: Remove contaminated clothing and wash affected areas thoroughly with soap and water. Launder clothing before reuse.

Inhaled Move affected person to fresh air and keep at rest until recovered.

5. Fire Fighting Measures

Suitable extinguishing media Not combustible. Use extinguishing media suited to burning materials..

Specific hazards arising from the chemical Non-combustible. If involved in a fire, it will toxic irritating gases and fumes.
Hazchem Code None Allocated.

Emergency Action If exposed to fire, keep container cool by spraying with water fog.
Other Information: Prevent fire water from entering drains or water bodies.

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 fumes;
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 (e.g. sand or soil).
Shovel the absorbed spill into drums.
Collect in a suitable, closed container to dispose and clean the spilled area with water.

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 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.

Appropriate engineering controls Handle in well ventilated areas, generally natural ventilation is adequate.

Personal protective equipment (PPE) When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the next and wrist and a washable hat, elbow length PVC chemical resistant and face shield or goggles.
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	Clear, red-brown liquid with ammonia like odour
pH (1% deionized Water);	No specific data available
Melting point	No specific data available. Liquid at normal temperatures.
Boiling point	Approx 100°C (estimated)
Flash point	Not flammable
Evaporation rate	No specific data available
Flammability	Not flammable
Vapour pressure	As for water
Vapour density	Less than 1
Solubility in water	Soluble
Auto-ignition temperature	Not applicable, does not burn
Coeff Oil/water distribution	0.71 at pH 7 (MCPA acid) (log P octanol/water)

10. Stability and Reactivity

Reactivity	Avoid contact of the concentrate with strong alkalis and acids. Polymerisation is unlikely.
Chemical stability	Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.
Conditions to avoid	Keep away from strong acids and oxidizing agents.
Incompatible materials and possible hazardous reactions	Reaction with acids can cause the concentrate or spray mix to precipitate solid MCPA, causing deactivation of the product and blockage of spray nozzles. The addition of a strong alkali such as caustic soda will cause the release of dimethylamine vapour, which is moderately toxic.
Hazardous decomposition products	If heated until evaporation of water, the residual material can emit toxic and noxious fumes. Will not polymerise.

11. Toxicological information

Information on routes of exposure and symptoms related to exposure

Acute toxicity	MCPA acid is harmful via ingestion, with reported oral LD50 values for the technical product in rats ranging from 700 mg/kg to 1160 mg/kg and ranging in mice from 550 to 800 mg/kg. It is harmful via the dermal route as well, with reported dermal LD50 values ranging from > 1000 mg/kg in rats to > 4000 mg/kg in rabbits.
Chronic toxicity:	Dietary levels of approximately 50 mg/kg/day and 125 mg/kg/day over 7 months caused reduced feeding rates and retarded growth rates in rats. White blood cell counts and ratios were not affected, but some reductions in red blood cell counts and haemoglobin did appear to be associated with exposure to MCPA at oral dose levels of approximately 20 mg/kg/day. In the same study, oral doses of approximately 5 mg/kg/day caused increased relative kidney weights, and oral doses of approximately 20 mg/kg/day caused increased relative liver weights. Another study in rats showed no effects on kidney or liver weights over an unspecified period at oral doses of 60 mg/kg/day, but oral doses of 150 mg/kg/day did cause reversible increases in these weights over a course of 3 months. Very high dermal doses of 500 mg/kg/day caused reduced body weight, and even higher dermal doses of 1000 and 2000 mg/kg/day resulted in increased mortality and observable changes in liver, kidney, spleen, and thymus tissue.
Reproductive effects	A two-generation rat study at doses of up to 15 mg/kg/day affected reproductive function. It is unlikely that humans will experience these effects under normal exposure conditions.
Teratogenic effects	Offspring of pregnant rats fed low to moderate doses of MCPA (20 to 125 mg/kg) on days 6 to 15 of gestation, had no birth defects. Teratogenic effects in humans are unlikely at expected exposure levels.
Mutagenic effects	MCPA is reportedly weakly mutagenic to bone marrow and ovarian cells of hamsters, but negative results were reported for other mutagenic tests. It appears that the compound poses little or no mutagenic risk
Carcinogenic effects	All of the available evidence on MCPA indicates that the compound does not cause cancer. Forestry and agricultural workers occupationally exposed to MCPA in Sweden did not show increased cancer incidence.
Organ toxicity	Target organs identified in animal studies include the liver, kidneys, spleen. and thymus. Farm worker exposure has resulted in reversible anemia, muscular weakness, digestive problems, and slight liver damage
Fate in humans and animals	MCPA is rapidly absorbed and eliminated from mammalian systems. Rats eliminated nearly all of a single oral dose within 24 hours, mostly though urine with little or no metabolism. Humans excreted about half of a 5 mg dose in the urine within a few days. No residues were found after day 5.

12. Ecological information (continued on page 4)

Eco toxicity Moderate to high toxicity to aquatic organisms. LC50 (96 hr) for rainbow trout and bluegill sunfish is 135 mg/L for dicamba. LC50 (96 hr) for rainbow trout is 50 - 560 mg/L for MCPA. LC50 (96 hr) for bluegill sunfish is > 135 mg/L for MCPA. LC50 (48 hr) for daphnia is 110 mg/L for dicamba. LC50 (48 hr) for daphnia is > 190 mg/L for MCPA. MCPA is practically nontoxic to freshwater invertebrates, and estuarine and marine organisms. Nontoxic to bees. Moderate toxicity to birds LD50 for bobwhite quail is 377 mg/kg for MCPA.

Effects on birds: MCPA is moderately toxic to wildfowl; the LD50 of MCPA in bobwhite quail is 377 mg/kg.

Effects on aquatic organisms: MCPA is only slightly toxic to freshwater fish, with reported LC50 values ranging from 117 to 232 mg/L in rainbow trout. MCPA is practically nontoxic to freshwater invertebrates, and estuarine and marine organisms.

Effects on other organisms: It is nontoxic to bees, with a reported oral LD50 of 104µg/bee.

Environmental Fate:	MCPA and its formulations are rapidly degraded by soil microorganisms and it has low persistence, with a reported field half-life of 14 days to 1 month, depending on soil moisture and soil organic matter. With less than 10% organic matter in soil, MCPA is degraded in 1 day and, with greater than 10% levels in soil, it takes 3 to 9 days to degrade. The half-life is 5 to 6 days in slightly acidic to slightly alkaline soils. MCPA readily leaches in most soils, but its mobility decreases with increasing organic matter. MCPA and its formulations show little affinity for soil. It is relatively stable to light breakdown, but can be rapidly broken down by microorganisms. In sterilized water, it takes about 5 weeks for half of the compound to degrade due to the action of sunlight. In rice paddy water, however, MCPA is almost totally degraded by aquatic microorganisms in under 2 weeks. **Breakdown in soil and groundwater**: MCPA and its formulations are rapidly degraded by soil microorganisms and it has low persistence, with a reported field half-life of 14 days to 1 month, depending on soil moisture and soil organic matter. MCPA and its formulations show little affinity for soil. **Breakdown in water:** It is relatively stable to light breakdown , but can be rapidly broken down by microorganisms. In rice paddy water, MCPA is almost totally degraded by aquatic microorganisms in under 2 weeks. **Breakdown in vegetation:** MCPA is readily absorbed and translocated in most plants. It is actively broken down in plants, the major metabolite being 2-methyl-4-chlorophenol.

13. Disposal considerations

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

General Transport Information	It is considered good practice not to transport agricultural chemical products with food, food related materials and animal feed products.
Land	Considered **non-dangerous** for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)
Sea and Air	Considered **DANGEROUS** for transport by sea and air in accordance with the IMDG Code 37-14

SEA (IMDG Code):
UN Number: 3082
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA 75%)
DG Class: 9
Packing Group: III Marine Pollutant: Yes

AIR: (ICAO/IATA)
UN Number: 3082
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MCPA 75%)
DG Class: 9
Packing Group: III
Marine Pollutant: Yes

15. Regulatory information

Poisons Schedule number	Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) – Poison Schedule: **S6**

16. Other information

Date of Review	This Safety Data Sheet (SDS) was completed 20 January 2017

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
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