






# CHOICE MCPA LVE 570 HERBICIDE

## Safety Data Sheet

### SECTION 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Identifier	CHOICE MCPA LVE 570 HERBICIDE
Active Constituent	570g/L MCPA PRESENT AS THE 2-ETHYLHEXYL ESTER
Other means of Identification	AGRICULTURAL GROUP 1 HERBICIDE. Grow Choice product code number: 5003 AVPMA registered number: <b>70369/63294</b>
Recommended use of the chemical and restrictions on due	<b>For selective control of certain weeds in agricultural crops as listed in the directions for use.</b>
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: <a href="mailto:admin@growchoice.com.au">admin@growchoice.com.au</a> In Case Of Emergency Dial 000
Emergency phone number:	
Poisons Information Centre	Phone: 13 11 26 and speak to a Poisons Information Specialist. Fax: +61 2 9845 3597 <a href="http://www.chw.edu.au/poisons/contact.htm">http://www.chw.edu.au/poisons/contact.htm</a>

### SECTION 2: HAZARDS IDENTIFICATION (continued on page 2)

-  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

#### 2.1 Classification of the hazardous chemical

Acute toxicity (Inhalation)	Category 4
Acute toxicity (Dermal)	Category 4
Acute toxicity (Oral)	Category 4
Hazardous to aquatic environment (acute)	Category 1
Hazardous to aquatic environment (chronic)	Category 1

#### 2.2 Label Elements

Signal word  
GHS  
Symbols

DANGER



Escalation Mark



Environment

Hazard Statements

H302  
H312  
H332  
H410

Harmful if swallowed  
Harmful in contact with skin  
Harmful if inhaled  
Very toxic to aquatic life with long lasting effects.

Precautionary Statements

General

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
Prevention	P273	Avoid release to the environment.
	P261	Avoid breathing dust/fume/gas/mist/ vapours/spray.
	P271	Use only outdoors or in a well-ventilated area
	P280	Wear protective gloves/protective clothing
	P264	Wash hands, arms, face, neck and any exposed skin thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
Response	P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
	P363	Wash contaminated clothing before reuse.
	P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
	P330	Rinse mouth.
	P391	Collect spillage.
Storage	P403 + P235	Store in a well-ventilated place. Keep cool. Keep container tightly closed.
	+P233	
	P405	Store locked up
Disposal	P501	Dispose of contents and container in accordance with local, regional and national regulations.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients as a %
<b>MCPA PRESENT AS THE 2-ETHYLHEXYL ESTER</b>	<b>29450-45-1</b>	<b>57%</b>
<b>Non hazardous chemicals</b>	<b>n/a</b>	<b>Balance</b>

### SECTION 4: FIRST AID MEASURES (continued on page 3)

**In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: 13 11 26 and speak to a Poisons Information Specialist. Take this SDS and or DFU/Label with you or when calling the Poisons Information Centre.**

#### Description of first aid measures

**General advice:** Those who offer First Aid should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

#### Inhalation:

If product is inhaled, remove person to fresh air. Seek medical attention/call an ambulance if breathing problems develop. Apply mouth to mouth resuscitation if not breathing covering the mouth of affected person with a mouth protector.

#### Skin Contact:

Will irritate the skin.

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if irritation persists or symptoms occur. Wash contaminated clothing before re-use.

#### Eye Contact:

Attacks the eyes. In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention.

#### Ingestion:

Harmful if swallowed. If swallowed, DO NOT induce vomiting. Give a glass of water. Seek medical advice immediately.

### Symptoms Caused by Exposure:

Swallowed:	The concentrate is considered to be harmful if swallowed. The spray solution is not considered a significant hazard due to the relatively low toxicity of the diluted product.
Eye:	The concentrate may cause severe irritation and probable damage if contact with the concentrate is prolonged.
Skin:	The concentrate may cause irritation and possible damage if contact is prolonged or excessive.
Inhalation:	Not considered a serious hazard because MCPA (dimethylamine salt) is practically non-volatile; however, inhalation of spray mists should be avoided.
Chronic Effects	Liver and kidney damage has been noted in laboratory animals but only after excessive doses.
Other Health Hazard Information:	
Acute over Exposure:	Headache, nausea and vomiting with possible twitches and spasms in extreme cases.

As above and refer to Section 11.

### Medical Attention and Special Treatment

No specific antidote exists. Treat symptomatically. If vomiting occurs, the solvent present in the formulation may cause pulmonary pneumonitis

## SECTION 5: FIRE FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Combustible liquid. Extinguish fire using carbon dioxide, foam or dry agent. If waterspray is used, contain all runoff. Contain all runoff
<b>Specific hazards arising from the chemical</b>	There is a slight risk of an explosion from this product if commercial quantities are involved in a fire. On heating will emit toxic fumes. Firefighters to wear self- contained breathing apparatus and suitable protective clothing if risk to of exposure to vapour or smoke.
<b>Special protective equipment and precautions for fire fighters</b>	Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise, use water spray to cool them. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or other extinguishing agent and spillage safely later.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	In case of spillage it is important to take all steps necessary to: Avoid contact with the spilled material or contaminated surfaces. Extinguish or remove any sources of ignition. When dealing with spills do not eat, drink or smoke and wear protective clothing and equipment. Keep people and animals away. Prevent spilled material from entering drains or watercourses.
<b>Environmental precautions</b>	Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities. Reposition any leaking containers so as to minimise leakage. Dam and absorb spill with an absorbent material (eg sand or soil). Shovel the absorbed spill into drums
<b>Methods and materials for containment and cleaning up</b>	Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately. ). Clean contaminated floors and objects thoroughly, observing environmental regulations If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.
<b>6.4 Reference to other sections</b>	<b>Information regarding safe handling see section 7.</b> <b>Information regarding personal protective equipment see section 8.</b> <b>Information regarding waste disposal, see section 13.</b>

## SECTION 7: HANDLING AND STORAGE (continued on page 4)

<b>Precautions for</b>	Safe work practices are recommended.
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<b>safe handling</b>	<p>Avoid contact with eyes and skin.</p> <p>When opening the container and preparing spray wear appropriate PPE (refer Section 8).</p> <p>Do not spray under high wind conditions.</p> <p>Hygiene measures:</p> <p>When using products, do not eat, drink or smoke.</p> <p>Contaminated work clothing should not be allowed out of the workplace.</p> <p>Wash hands thoroughly with soap and water after use and before eating, drinking, smoking/using tobacco, chewing gum, using the toilet or applying cosmetics.</p> <p>After each day's use, wash gloves, face shield or goggles and contaminated clothing.</p> <p>Avoid contact with eyes and skin.</p>
<b>Conditions for safe storage, including any incompatibilities:</b>	<p>Keep out of reach of children, unauthorised persons and animals.</p> <p>Store in tightly sealed original containers in a dry secure place away from fertilizers, feed and food.</p> <p>Store out of direct sunlight and extreme temperature.</p> <p>Always read the label and any attached leaflet before use.</p> <p>Not classified as a Dangerous Good. This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations. This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to state regulations for storage and transport requirements.</p>

## SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>Appropriate engineering controls</b>	<p>No biological limit allocated.</p> <p>Use in ventilated areas. Keep containers closed when not in use. No special engineering controls are required.</p>
<b>Personal protective equipment (PPE):</b>	<p>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.</p> <p>When using the prepared spray, wear 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.</p> <p><b>Face and Eye Protection:</b> Face shield or goggles.</p> <p><b>Clothing:</b> Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat.</p> <p><b>Gloves:</b> Elbow-length chemical resistant PVC gloves.</p> <p><b>Respiratory:</b> 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.</p> <p>Recommended to use Australian and New Zealand Standard PPE:</p> <p>Overalls AS 3765, Clothing for protection against Hazardous chemicals</p> <p>Gloves: AS/NZS 2161, Industrial safety gloves and mittens (not electrical and medical gloves)</p> <p>Goggles and face shield As/NZS 1337, Eye protectors for industrial applications.</p> <p>Footwear: AS/NZS 2210, Occupational protective footwear</p> <p>Respirators AS NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices</p> <p>AS/NZS 1716, Respiratory Protective Devices</p>
<b>Requirements Concerning Training</b>	<p>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.</p>

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear brown liquid
<b>Odour</b>	Characteristic solvent odour
<b>pH (1% deion. Water);</b>	No data available
<b>Melting point</b>	No data available
<b>Flash point</b>	> 100°C
<b>Flammability</b>	Not flammable
<b>Behaviour in water</b>	Forms an emulsion in water

<b>Viscosity</b>	No data available
<b>Surface tension</b>	No data available
<b>Corrosiveness</b>	No data available
<b>Combustibility</b>	No data available
<b>Explosive properties</b>	No data available
<b>Specific gravity</b>	1.0

## SECTION 10: STABILITY AND REACTIVITY (continued on page 5)

**Possibility of Hazardous Reactions:** Hazardous polymerisation will not occur.

**Chemical Stability:** Stable at ambient temperature and under normal conditions of use. Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

**Conditions to Avoid:** Keep away from strong oxidizing agents

**Incompatible Materials:** Strong oxidising agents such as chlorates, nitrates, peroxides etc.

### **Hazardous Decomposition Products:**

If heated until evaporation of water, the residual material can emit toxic fumes.

Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime.

Polymerisation is unlikely.

## SECTION 11: TOXICOLOGICAL INFORMATION (continued on page 6)

**Toxicity to fish** LC50 (Oncorhynchus mykiss (rainbow trout)) 3.2 mg/l Exposure time: 96 h  
The value mentioned relates to the active ingredient MCPA 2-ethylhexyl ester.

MCPA 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. Other studies 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 period 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, & thymus.

### **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 was negative in a bacterial test system (both with and without metabolic activation), negative in spot tests, and negative in host-mediated tests. It produced no detectable increase in chromosomal aberrations in house flies. Some irregularities occurred in gene transfer during cell division in brewer's yeast, although at levels which caused massive cell death. It appears that the compound poses little or no mutagenic risk.

**Carcinogenic effects:** All 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.

### **Reproductive effects:**

A two-generation rat study at doses of up to 15 mg/kg/day affected reproductive function. Even smaller amounts of the compound were toxic to the foetuses. Dogs receiving relatively small amounts of MCPA (8 and 16 mg/kg) for 13 weeks showed adverse sperm and testes changes. It is unlikely that humans will experience these effects under normal exposure conditions.

**Teratogenic effects:** Offspring of pregnant rats fed 20 to 125 mg/kg of MCPA on days 6 to 15 of gestation, had no birth defects. However, when the ethyl ester form of MCPA was fed to pregnant rats (2 to 100 mg/kg/day on days 8 to 15 of gestation), cleft palate, heart defect, and kidney anomalies were observed in the offspring. Mice fed 5 to 100 mg/kg/day of MCPA on days 6 to 15 showed significantly reduced foetal weight and delayed bone development at the highest dose. Teratogenic effects in humans are unlikely at expected exposure levels.

**Organ toxicity:** Target organs identified in animal studies include the liver, kidneys, spleen and thymus. Farm worker exposure has resulted in reversible anaemia, 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 through urine with little or no metabolism. In another rat study, three quarters of the dose was eliminated within 2 days. All was gone by 8 days. Humans excreted about half of a 5 mg dose in the urine within a few days. No residues were found after day 5. Cattle and sheep fed low to moderate doses of MCPA in the diet for 2 weeks showed no residues from levels less than about 18 mg/kg.

**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for MCPA for a human is 0.01mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1.1 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', June 2014).

## SECTION 12: ECOLOGICAL INFORMATION

MCPA is considered to be of moderate toxicity to man. There have been very few reported acute toxic effects on users over many years. Several deaths have been recorded, but all of these have been deliberate suicide, generally using the sodium salt.

**Environmental Toxicology:**

Toxicity to mammals:

Acute oral LD50 (rats) : 900 – 1160 mg/Kg

Acute percutaneous LD50 for rats >4000 mg/Kg

Moderate to high toxicity to aquatic organisms.

Toxicity to fish:

Threshold value in (perch) : 200mg/l

Threshold value in (roach) : 215mg/l (3-4 days)

LC50 (96 hr) for rainbow trout is 50 - 560mg/L for MCPA.

LC50 (96 hr) for bluegill sunfish is > 135 mg/L for MCPA.

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.

**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.

**Biodegradability** MCPA-2-ethylhexyl ester: Rapidly biodegradable

**Bioaccumulation** MCPA-2-ethylhexyl ester: Bio concentration factor (BCF) 1 Does not bio accumulate.

**Mobility in soil** Mobile in soils – see above 'Environmental Fate'

**Additional ecological information** No other effects to be mentioned



## SECTION 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.

## SECTION 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

#### Classification for SEA transport IMDG

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(MCPA)

Classification for SEA transport (IMO-IMDG):

UN number UN 3082

Class 9

Packing group III

Marine pollutant: Yes

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code Consult IMO regulations before transporting ocean bulk

Hazchem Code: •2X

## SECTION 15: REGULATORY INFORMATION

Not classified as a Dangerous Good. **This product is a Schedule 6 Poison (S6)** and must be stored, transported and sold in accordance with the relevant Health Department regulations. This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to state regulations for storage and transport requirements

## SECTION 16: OTHER INFORMATION

Review: This SDS was reviewed on 29 January 2017 and replaces any prior dated MSDS or SDS.

#### 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)

STEL Exposure standard - short term exposure limit.

AS/NZS: Australian Standards and New Zealand Standards for Personal protective equipment

ADI: Acceptable Daily Intakes For Agricultural And Veterinary Chemicals

ADG: Australian Dangerous Goods

IMDG: International Maritime Code of Dangerous Goods

IATA: International Air Transport Association

End of SDS

#### DISCLAIMER:

This SAFETY DATA SHEET has been developed according to the Work Health and Safety Regulations (WHS Regulations) Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals December 2011. The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof. The purpose of this SAFETY DATA SHEET is to describe product in terms of their safety requirements. Grow Choice Pty Ltd makes no representation of merchantability, fitness for a particular purpose of application, or of any other nature with respect to the information or the product to which the information refers ("the product"). The information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purpose prior to the use of the product. The physical data shown herein are typical values based on the material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof.

Due care should be taken to make sure that the use or disposal of this product and/or its packaging is in compliance with Relevant Federal, State and Local Government regulations.