

SAFETY DATA SHEET



eChem (Australia) Pty Ltd
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Emergency Contact:
1800 033 111

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: eChem MCPA 500 LVE Herbicide

Full Product Name: eChem MCPA 500 LVE Herbicide.
Other Names: MCPA. Group I Herbicide.
Use: An agricultural Herbicide for control of certain weeds in crops.
Company: eChem (Australia) Pty Ltd.
Address: Level 4, Lantos Place, 80 Stamford Road, Indooroopilly, Qld, 4068.
ACN/ABN: 089 133 095.
Telephone Number: 1300 781 649 **Fax Number:** 1300 781 650
Emergency Contact: 1800 033 111

SECTION 2 HAZARDS IDENTIFICATION

**Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.
Combustible Liquid (C1).**

GHS classification of the substance/mixture

Acute Toxicity – Oral: Category 4.
Aspiration Hazard: Category 1.
Acute Toxicity - Dermal: Category 4.
Acute Toxicity - Inhalation: Category 4.

Signal Word: DANGER.

Hazard statements:

H302 Harmful if swallowed.
H304: May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.

Precautionary Statements:

Prevention:

P264 Wash hands, arms and face thoroughly after handling.
P261 Avoid breathing vapours or spray.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
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.
P322 Specific measures see Safety Directions on product label.
P330 Rinse mouth.

SECTION 2 HAZARDS IDENTIFICATION (Continued)

- P331 Do NOT induce vomiting.
P363 Wash contaminated clothing before reuse.

Storage and Disposal:

- P405 Store locked up.
P501 Dispose of contents/container in accordance with national regulations.

Pictograms:**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

<i>CHEMICAL</i>	<i>CAS NUMBER</i>	<i>PROPORTION</i>
MCPA as the 2-ethylhexyl ester	2039-46-5	500 g/L
Liquid hydrocarbon	64742-94-5	10-30%
Other ingredients determined not to be hazardous		Balance

SECTION 4 FIRST AID MEASURES**FIRST AID**

- Ingestion:** If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 13 11 26). If swallowed, do not induce vomiting. Rinse any residual product from mouth and lips. Give water to drink and seek medical help.
- Eye contact:** immediately hold eyes open and flood with clean water until chemical is removed. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained. If irritation occurs and persists see a doctor.
- Skin contact:** Remove contaminated clothing and launder before re-use. Wash skin with soap and water. If irritation occurs and persists see a doctor.
- Inhalation:** Remove to fresh air and observe until recovered. Seek medical advice if effects persist.

Advice to Doctor: Treat symptomatically. If vomiting occurs, the solvent present in the formulation may cause pulmonary pneumonitis.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Product is a combustible liquid. Flash point approximately 92°C. Eruption of containers is likely if confined at high temperatures. Intact containers exposed to excessive heat should be cooled with water to reduce drum pressure.

Extinguishing media: Use carbon dioxide, dry chemical or foam. If no alternative use water fog and contain all run off. If containers are ruptured contain all runoff.

Hazards from combustion products: On burning will produce toxic and noxious vapours, including hydrogen chloride, hydrogen cyanide and oxides of carbon and nitrogen can be expected.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke or vapours generated. Evacuate personnel to a safe area.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergency procedures: Isolate and post spill area. Keep out unprotected persons and animals. Wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles. Large spills should be dyked. Absorb spilled material with absorbent material such as sand, clay or cat litter.

SECTION 6 ACCIDENTAL RELEASE MEASURES (Continued)

Vacuum, shovel or pump spilled material into an approved container and dispose of waste as indicated in section 13 or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep material out of streams and sewers.

Material and methods for containment and cleanup procedures: To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

SECTION 7 HANDLING AND STORAGE

Precautions for safe Handling: No smoking, eating or drinking should be allowed where material is used or stored. Harmful if swallowed. Attacks eyes. Will irritate the skin. When 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. If product in eyes, wash it out immediately with water. 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, goggles and contaminated clothing.

Conditions for safe Storage: Store in the closed, original container in a well ventilated area away from children, animals, food, feedstuffs, seed and fertilisers. Do not store for prolonged periods in direct sunlight. This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Do not store or use near naked flame, or heat sources. Do not cut or weld container. This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations. Not classified as a Dangerous Good by the Australian Code for the Transport of Dangerous Goods.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**National Exposure Standards:**

Exposure guidelines have not been established for this product by Safe Work Australia. However the following standard may apply:

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m ³)
Aromatic hydrocarbons	100 ppm	Not set

TWA = Time-weight Average

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Keep containers closed when not in use. No special engineering controls are required, however make sure that the work environment remains clean and that vapours and mists are minimised.

Personal Protective equipment (PPE):

General: When 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. If product in eyes, wash it out immediately with water. 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, goggles and contaminated clothing.

Personal Hygiene: Harmful if swallowed. Attacks eyes. Will irritate the skin. Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear brown liquid.
Odour:	Solvent odour.
Boiling point:	No data available.
Freezing point:	No data available.
Specific Gravity:	Approximately 1.0.
Solubility in Water:	Emulsifies in water.
pH:	No data available.
Flammability:	Combustible liquid (C1).
Flashpoint (°C):	Approximately 92°C.
Poisons Schedule:	This product is a schedule 6 (S6) poison.
Formulation type:	Emulsifiable Concentrate.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable for a period of at least 2 years after manufacture.

Conditions to avoid: Do not store for prolonged periods in direct sunlight. Store away from sources of ignition. Avoid alkaline materials.

Incompatible materials: Incompatible with strong oxidizing agents, strong acids and strong bases.

Hazardous Decomposition Products: On burning will emit toxic fumes of carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine and hydrogen fluoride etc.

Hazardous Reactions: Does not polymerise.

SECTION 11 TOXICOLOGICAL INFORMATION

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

Potential Health Effects:**ACUTE EFFECTS**

Swallowed: Harmful if swallowed. Acute Oral LD₅₀ (rat) = 1300 mg/kg - MCPA 2EHE.

Eye: This product will cause severe irritation to the eyes. Possible eye damage if not washed off immediately.

Skin: This product will irritate the skin and may be sensitising to sensitive individuals. Acute dermal LD₅₀ > 2,000 mg/kg – MCPA 2EHE.

Inhaled: Inhalation of mists or sprays may produce respiratory irritation. LC₅₀ > 4.5 mg/L/4 hrs – MCPA 2EHE.

Long Term Exposure: No data available on this formulation.

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.

SECTION 11 TOXICOLOGICAL INFORMATION (Continued)

Some irregularities occurred in gene transfer during cell division in brewers 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.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: No data is available on this product. 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. Non toxic 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.

SECTION 13 DISPOSAL CONSIDERATIONS**Spills and Disposal:****1) After intended use - containers:**

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

SECTION 13 DISPOSAL CONSIDERATIONS (Continued)**2) After spill or accident**

Persons involved in cleanup require adequate skin protection - see section 8. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with detergent and water and add the solution to the drums of wastes already collected and label contents. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities. In rural areas contact ChemClear <http://www.chemclear.com.au> for help with collection of unwanted rural chemicals.

SECTION 14 TRANSPORT INFORMATION

Transport: This product is not classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Marine and Air Transport: This product not classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

SECTION 15 REGULATORY INFORMATION

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 6 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 68757.

This product is classified as a Hazardous Substance under the criteria of Safe Work Australia. Xn: Harmful.

This product is not classified as a Dangerous Good.

Requirements concerning special training:

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 16 OTHER INFORMATION

Issue Date: 1 September 2014. Valid for 5 years. (First issue).

Key to abbreviations and acronyms used in this SDS:

ADG Code: Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).

Ataxia: Inability to control the coordinate movements of the muscles.

Bradycardia: Is a resting heart rate of under 60 beats per minute (adults).

Carcinogen: An agent which is responsible for the formation of a cancer.

Genotoxic: Capable of causing damage to genetic material, such as DNA.

Mutagenic: Able to produce a mutation (a change in the genetic material of cells).

Neurotoxicity: An adverse change in the structure or function of the nervous system.

Oedema: Accumulation of fluid in tissues.

PPE: Personal protective equipment.

Teratogen: An agent capable of causing abnormalities in a developing foetus, that is causing birth defects.

TWA: The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.

Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

References

1. "Search Hazardous Substances". Safe Work Australia HSIS website. (2014).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.

SECTION 16 OTHER INFORMATION (Continued)

This SDS 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.

End SDS.