



SAFETY DATA SHEET MCPA AMINE 750 HERBICIDE

Section 1: Identification of the Substance and Supplier

Product name: MCPA AMINE 750 HERBICIDE
Chemical name of active Ingredient(s): MCPA is an aryloxyalkanoic acid derivative. It is present as the dimethylamine salt.
Supplier: ADAMA New Zealand Limited
Level1/19 Elms Street, Wakatu Estate, Stoke, Nelson, New Zealand
P.O. Box 1799, Nelson New Zealand.
Telephone: +64 3 5438275 Fax: +64 3 543 8274
Emergency Telephone: 0800 POISON (0800 764 766)

Section 2: Hazards Identification

Hazard Classifications: 6.1D, 6.9A, 8.3A, 9.1A, 9.1D, 9.2A, 9.3B

Most important hazards: TOXICITY
Warning – May be harmful if swallowed, inhaled or absorbed through the skin. May cause liver damage from repeated oral exposure at high doses.
Danger – this product is corrosive and may cause eye damage.
Avoid skin and eye contact and inhalation of spray mist.

ECOTOXICITY
Very toxic to aquatic organisms. Avoid contamination of any water supply with chemical or empty container. Selective herbicide - very toxic to some plant species. Toxic to terrestrial vertebrates

Section 3. Composition/Information on Ingredients

Substance/preparation	Preparation	
Information on hazardous ingredients *		
Common name	CAS No.	%
MCPA, dimethylamine salt	94-74-6	75
Other non-hazardous ingredients	Secret	to 100

- **Occupational Exposure Limit(s), if available, are listed in section 8**

Section 4: First-Aid Measures

First-aid measures:

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre 0800 POISON (0800 764 766) or call a doctor.

Skin contact: Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes, and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye contact: Immediately flush with lukewarm gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.



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Section 5: Fire-Fighting Measures

Fire and Explosion Hazards:	There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Extinguishing Media:	Not combustible. Use extinguishing media suited to burning materials.
Fire Fighting:	If a significant quantity of this product is involved in a fire, call the fire brigade.
Flash Point:	Does not burn
Upper Flammability Limit:	Does not burn
Lower Flammability Limit:	Does not burn
Autoignition temperature:	Not applicable – does not burn
Flammability Class:	Does not burn

Section 6: Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering into drains and water courses. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self-contained breathing apparatus. Suitable materials for protective clothing include rubber, PVC, Viton. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is significant chances that vapour or mists are likely to build up in the clean-up area, we recommend that you use a respirator. Usually no respirator is necessary when using this product.

Stop leak if safe to do so and contain spill. Absorb with sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labeled containers for recycling or salvage and dispose of promptly. Recycle containers wherever possible after careful cleaning. If a significant quantity of material enters drains, advise emergency services.

Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7: Handling and Storage

HANDLING PRECAUTIONS:	Keep out of reach of children. Do not eat, drink or smoke while using.
Equipment:	Apply using well maintained spray equipment that is accurately calibrated to apply 100-300 litres of <i>water/ha</i> for ground spraying and 30-100 litres of <i>water/ha</i> for aerial spraying. Use higher water rates for larger weeds
Storage:	Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, seeds and fertilisers. Store in accordance with NZS 8409 Management of Agrichemicals. Stores containing 100 litres are subject to signage and secondary containment, and more than 100 litres require emergency response plans.
Personal protection:	Avoid skin and eye contact, and inhalation of spray mist. When mixing or applying wear appropriate protective clothing including cotton overalls buttoned to the neck and wrist, impervious, elbow-length gloves, and eye protection. Remove protective clothing and wash hands, arms and face with soap and water before meals and after work.
Packaging materials	
Suitable:	HDPE containers.

Section 8: Exposure Controls/Personal Protection

Engineering measures:	No special ventilation required. When working with the concentrate in confined spaces, it is recommended that forced ventilation be used to remove traces of dimethylamine vapour from the working atmosphere.
Hygiene measures:	Avoid all personal contact. Wear cotton overalls, buttoned to the neck and wrist and washable hat, elbow length PVC gloves and safety goggles. Avoid working in and



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Occupational Exposure breathing spray mist. Wash protective clothing before storage or reuse. Wash thoroughly after handling and before eating, drinking or smoking. No exposure limits have been set for this product.

The ADI for MCPA is set at 0.01mg/kg/day. The corresponding NOEL is set at 1.1mg/kg/day. ADI mean Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI list, Sept 2011.

Common name: MCPA dimethylamine salt

Personal protective equipment:

Respiratory system: Respirator is recommended.
Skin and body: Wear suitable protective clothing. Chemical resistant boots.
Hands: Chemical resistant gloves.
Eyes: Safety goggles.

Section 9: Physical and Chemical Properties

Physical state: Clear red-brown Liquid, with an ammonia odour
Colour: Clear, red-brown
Freezing/Melting Point: No specific data. Liquid at normal temperatures
Boiling point: Not available
Specific Gravity: 1.181 g/mL
Volatiles: No data
Vapour Pressure: Negligible
Vapour Density: No data
Solubility in water: Soluble
pH: No data
Volatility: No data
Odour Threshold: No data
Evaporation Rate: No data
Coieff Oil/Water distribution -0.71 at pH (MCPA acid) (log P octanol/water)
Autoignition temp: Not applicable – does not burn

Section 10: Stability and Reactivity

Stability: This product is unlikely to react or decompose under normal conditions.
Materials to avoid: Protect this product from light. Store in the closed original container, in dry, cool, well ventilated area out of direct sunlight.

Hazardous decomposition products: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headaches, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

Section 11. Toxicological Information

Preparation Information provided below is for MCPA
Acute toxicity - Oral: LD₅₀ (rat) 700 to 1160 mg/kg
Acute toxicity - Oral: LD₅₀ (mice) 550 to 800 mg/kg
Acute toxicity - Dermal: LD₅₀ (rat) >1000 mg/kg
Acute toxicity - Dermal: LD₅₀ (rabbit) >4000 mg/kg

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



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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 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. Humans excreted about half of a 5 mg dose in the urine within a few days. No residues were found after day 5.

Section 12: Ecological Information

This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

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:

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.

Algae: EC50 >392mg/L

Daphnia: EC50 >190mg/L

Fish: LC50 rainbow trout (*Oncorhynchus mykiss*): 50mg/L

Section 13: Disposal Considerations

Methods of disposal:

Container Disposal - Triple rinse container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill. Avoid contamination of any water supply with product or empty container.





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Section 14: Transport Information

UN Number	3082
Proper shipping name	Environmentally hazardous substance, Liquid, N.O.S. (75% MCPA)
DG Class	9
Packing Group	III
Hazchem Code	2X
Marine Pollutant	Yes
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National transport regulations: Do not carry this product on a passenger service vehicle.

Segregation: Check the land transport Rule Dangerous Goods 1999, Rule 45001 for additional information. Sea transport may require additional segregation. Refer: NZS5433; Sea Segregation, or the International Maritime Dangerous Goods Code for details.

Section 15: Regulatory Information

New Zealand Regulatory Information:

NZFSA Approval: Registered pursuant to the ACVM Act 1997, No. P8574
See www.nzfsa.govt.nz/acvm for registration conditions

Approved pursuant to the HSNO Act 1996, Approval No. HSR000381
See www.ermanz.govt.nz for approval controls

HSNO Classifications: 6.1D, 6.9A, 8.3A, 9.1A, 9.1D, 9.2A, 9.3B



CORROSIVE (EYE)



ECOTOXIC

APPROVED HANDLER - This product must be under the care of an approved handler when it is applied in a wide dispersive manner or used by a commercial contractor.

RECORD KEEPING - Records of use must be kept under certain circumstances – see The New Zealand Standards for Management of Agrichemicals (NZS8409) for details

Section 16: Other Information

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

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

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