

Datapak

GROUP 4 HERBICIDE

MCPA AMINE 500

HERBICIDE

COMMERCIAL

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

GUARANTEE:

MCPA (present as dimethylamine salt) 500 g/L

REGISTRATION NO. 9516

PEST CONTROL PRODUCTS ACT

CAUTION

POISON

UNITED AGRI PRODUCTS CANADA INC.

789 Donnybrook Drive

Dorchester, Ontario

N0L 1G5

NET CONTENTS: 10 L

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03/05

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Causes irritation of skin and eyes. Do not get in eyes. Avoid contact with skin or clothing. Remove and wash contaminated clothing and shoes before reuse. Immature crops may be grazed or harvested for feed 7 days after application. If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., contact 1-866-375-4648 or www.cropro.org.

DIRECTIONS FOR USE

Use MCPA AMINE 500 for controlling most broadleaved weeds in wheat, barley, rye, oats and corn, flax (do not use on low linolenic acid varieties), peas and forage legumes (alfalfa, bird's-foot trefoil, red clover, ladino clover, alsike clover), turf, fairways and lawns, asparagus and non-crop areas. MCPA AMINE 500 is a selective foliage broadleaf killer. It is absorbed through the leaves or roots and is readily translocated in the plant. At recommended rates, MCPA persistence in the soil is up to one month in most conditions and up to 6 months in drier climates.

RESISTANCE MANAGEMENT RECOMMENDATIONS:

For resistance management, MCPA AMINE 500 is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to MCPA AMINE 500 and other Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of MCPA AMINE 500 or other Group 4 herbicides with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage, cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Technical Service at 1-800-265-4624 or at www.uap.ca.

MCPA AMINE 500 contains an amine salt of MCPA which is soluble and can be diluted in water. MCPA may be applied at the recommended rate with any efficient sprayer, preferably of the low volume type. MCPA will damage many plants including - carrots, beans, sweet clover, flowers, vegetables, and drift of spray on these crops must be avoided. Do not spray in high winds. Spraying equipment must be washed after use. Use clean water. Do not apply in rain or frost, or when heavy rain is expected.

Apply MCPA AMINE 500 in the amount of water necessary for even distribution. Use 50 - 200 L/ha (depending on crop) of water by ground and 30 L/ha by air. Spray at low pressure (200 - 350 kPa) during warm weather when weeds are young and growing actively. (See Note 1 under chart.)

USE APPLICATIONS FOR AERIAL APPLICATIONS

[to cereal crops, flax (do not use on low linolenic acid varieties) pastures, and non-cropland]

Exercise special care:

- Use sufficient water for even distribution.
- Avoid direct applications to any body of water. Do not contaminate water through spray drift or by cleaning of equipment or disposal of wastes.
- Apply a minimum of 30L of spray solution per hectare. Use boom pressure of 235 kPa or less. Avoid placing nozzles where spray will enter wing tip vortices.
- Do not apply this product directly to, or otherwise permit it to come into direct contact with desirable crops or other desirable broadleaf plants or non-target species and do not permit spray mists to drift onto them.
- Coarse sprays are less likely to drift, use only nozzles or nozzle configuration which minimize the production of fine spray drops. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure. When spraying, avoid combination of pressure and nozzle type that will result in fine particles (mist) which are more likely to drift. A spray thickening agent or drift retardant may be used with this product to aid in reducing spray drift.
- Do not use human flaggers.
- Avoid Spray Drift: Apply only when there is little or no hazard from spray drift. Small quantities of the spray, which may not be visible, may seriously injure susceptible crops and damage sensitive non-target habitat. A method must be used to detect air movement, lapse conditions, or temperature inversions (stable air) such as the use of balloons or a continuous smoke column at or near the spray site or a smoke generator on the spray equipment. If the smoke develops into layers or indicates a potential for hazardous spray drift, do not spray.
- BUFFER ZONES: Appropriate buffer zones should be established between treatment areas and aquatic systems, and treatment areas and significant wildlife habitat.
- Do not spray in winds exceeding 10 km per hour.
- Do not spray in dead calm near sensitive plants. A "cloud" of suspended droplets may drift onto sensitive plants when the wind comes up.
- Spray only when the wind is blowing away from a sensitive crop, shelter-belt or garden.

TO PREPARE THE SPRAY: Add half the required amount of water to the spray tank, then add the MCPA AMINE 500 with agitation, and finally the balance of the water with continued agitation.

SPOT TREATMENT: For knapsack application of MCPA AMINE 500 for spot treatment of weeds such as thistles, mix 20 mL MCPA AMINE 500 in one litre of water. Mix well and wet all foliage thoroughly.

SELECTIVE WEED CONTROL IN CROPS: Weeds differ in their susceptibility to MCPA AMINE 500 and not all types can be controlled satisfactorily in crops. Weeds may be placed in five groups. The amount of MCPA AMINE 500 to use will depend upon the susceptibility and whether the crops will tolerate this amount. Apply the lowest rates, 0.55 L - 1 L to susceptible weeds when weeds are young, 2 to 4 leaves, and are rapidly growing. Apply 1 - 1.5 L for less susceptible weeds or weeds which are in advanced growth stages, for hot and dry weather conditions and poor growth, or cold weather and slow growth. Apply 1.5 - 3 L for resistant weeds. See chart below.

Avoid spray drift when using on lawns and turf adjacent to susceptible plants..

DOSAGE CHART

TYPE OF WEED AND SUSCEPTIBILITY TO MCPA AMINE 500	FLAX (do not use on low linolenic acid varieties) Rate of MCPA AMINE 500/hectare	OATS, WHEAT BARLEY, RYE (not underseeded)	PEAS
Group 1 Very Susceptible - Wild Mustard	550 mL	550 mL	550 mL
Group 2 Susceptible - Stinkweed Lamb's-quarters, Common ragweed, Vetch, Tumbling mustard, Ball mustard, Bird's-rape, Creeping buttercup, False ragweed, Field horsetail, Flixweed, Giant ragweed, Hare's-ear mustard, Indian mustard, Kochia, Mustards, Prickly (lobed) lettuce, Ragweed, Sunflower, Wormseed mustard.		700 mL	700 mL 700 mL
Group 3 Moderately susceptible- Russian pigweed, Wild radish, Common plantain, Shepherd's purse, Dandelion (lawns), Burdock, Cocklebur, Tyme-leaved spurge.	1* L	1* L	
Group 4 Moderately resistant - Curled Dock, Peppergrass, Redroot pigweed, Tartary buckwheat, Smartweeds, Annual sow thistle, Alfalfa, American dragonhead, Bluebur, Buttercup, Chickweed, Dog mustard, False flax, Field peppergrass, Goosefoot, Hairy galinsoga, Lady's thumb, Oak-leaved goosefoot, pineappleweed, Prairie sunflower, Prostrate amaranth, Purslane, Stinging nettle, Sweet-clover, Sweet-gum, Tansy mustard, Tumble pigweed.		1.5* L	1.5* L
Group 5 Perennials and Top Growth Control Only – Leafy spurge, Russian knapweed, Russian thistle, Wild buckwheat, Canada thistle, Hemp nettle, Field bindweed, Perennial sow thistle, Dandelion (fields), Corn spurry, Biennial wormwood, Blue lettuce, Wild carrot, Horsetail, Docks, Goat's-beard, Gumweed, Hedge bindweed, Hoary cress, Tall buttercup, Toadflax, Tumbleweed.		1.5* - 2.5* L	

NOTE: 1. Rates recommended in chart above may be increased by 20% under adverse growing conditions or as weeds get older. * Rates marked (*) are higher than those considered safe for the crops and should be used where some crop damage can be tolerated. This is usually offset by the weed control obtained.

SMALL GRAINS UNDERSEEDED WITH A LEGUME: MCPA AMINE 500 may be used on grain interplanted with alfalfa, (except early maturing varieties), red clover, ladino clover and alsike. Do not use on grain interplanted with sweetclover or birdsfoot trefoil. Spray with not more than .35 - .70 L/ha when legumes are at about the second true leaf stage.

GRAZING RESTRICTION: Do not graze treated fields within 7 days of treatment.

ALFALFA and BIRDSFOOT TREFOIL (direct and underseeded): The use of MCPA AMINE 500 at 70 mL/ha (0.07 L/ha) and CALIBER 400 (2 L/ha) provides better control of wild mustard plants beyond the four-leaf stage of the mustards. This tank mix may increase crop stunting.

OATS: Oats are more tolerant to MCPA than 2,4-D and should be treated with MCPA AMINE 500 unless resistant weeds are present. Spray when conditions of weeds warrant. Treatments can be made from emergence up until the flag-leaf stage. If treatment is necessary between the 3 and 6 leaf states, use the lowest rate shown for cereal crops.

GRAZING RESTRICTION: Do not graze treated fields within 7 days of treatment.

WHEAT, BARLEY AND RYE: MCPA AMINE 500 is used for control of susceptible weeds in wheat and barley. Treatments can be made from the 3-leaf expanded to the early flagleaf stage, and again from the milk stage to the full maturity. Treatment made between emergence and 3-leaf stage may cause some crop injury but are less likely to with MCPA AMINE 500 than 2,4-D.

Fall-sown cereals: Treat in spring when crop commences growth and until the flag-leaf stage.

GRAZING RESTRICTION: Do not graze treated fields within 7 days of treatment.

LINSEED FLAX (Do not use on low linolenic acid varieties): Treat flax with MCPA AMINE 500 from the time when flax is 5 cm tall or is in the true-leaf stage to just before buds begin to form. Apply when crop is small to reduce shock. Apply as soon as there is enough weed emergence to make spraying practical. Apply the lower rate for susceptible weeds when weeds have 2 to 4 leaves and are growing rapidly. Use the higher rates for more resistant weeds, advanced weed growth, dry or cold weather conditions, or poor or slow growth. Better control of hemp-nettle, horsetail, smartweed, and wild buckwheat will result from two treatments of 0.7 L each. Apply first treatment then one week later follow with a second treatment starting when weeds are in the 2-leaf stage. Rates higher than 0.85 L may cause injury to crop. TCA at 4.5 to 6.75 kg/ha may be used in the spray for the control of Green foxtail in the 1 to 3 leaf stage.

ASPARAGUS: Treat asparagus with MCPA AMINE 500 following a cultivation just before first spears appear. Use 3.75 L/ha. Treatment may be repeated at end of cutting season.

CORN (FIELD, SWEET): Use MCPA AMINE 500 at the rate of 0.55 L - 1.7 L depending on susceptibility of the dominant weeds (dosage chart) in 200 L of water per ha.

GRAZING RESTRICTION: Do not permit livestock to enter the treated fields within 7 days of application.

Apply as an overall POSTEMERGENCE TREATMENT spray up until corn is 15-18 cm tall after which a directed spray should be used up until corn is 45 cm in height. Use the lower rate 0.55 L - 1.1 L for susceptible weeds having 2 to 4 leaves and growing rapidly. Use the higher rate 1.1 L - 1.7 L when weeds are at a more advanced stage of growth or if soil conditions are dry therefore causing slow growth, or if area is heavily infested with weeds. Avoid cultivation for 2 to 3 weeks following spraying. In case of drought, delay spraying until one week following rain. Consult cannery for susceptibility of sweet corn since some varieties may be injured when taller than 15 cm or rates exceed 0.55 L per ha. Field corn should not be sprayed later than 3 weeks before tasseling. Higher rates than 1.1 L may cause severe injury to crop but this is usually offset by better weed control.

PEAS: Field and canning peas should be treated with MCPA AMINE 500 when 10 - 18 cm tall, using not less than 150 L of water/ha. This treatment is not recommended for Nova Scotia. TCA (5.5 kg/ha) can be combined with MCPA AMINE 500 for the control of Green Foxtail in the 1 to 3 leaf stage.

ESTABLISHED PASTURES, ESTABLISHED ALFALFA STANDS (except early maturing varieties), ALSIKE CLOVER, RED CLOVER AND GRASSES: For the control of susceptible annual and perennial weeds, application should be made at 1 - 1.5 L/ha in the late fall after the legume tops have been killed by frost. Legumes may be injured at higher rates. Do not use on sweetclover. Spring applications should be made at 1 L/ha before legumes and grasses start active growth. Treat at an early stage of development of the legumes and when they are covered by a canopy of winter weeds.

GRAZING RESTRICTION: Do not pasture livestock within 7 days of spraying.

PASTURE, RANGELAND AND NON-CROP LAND: To control tall buttercup, apply 2.7 to 4.2 L of product per hectare in at least 50 L of water. Apply when tall buttercup is in the pre-bud to early bud stage.

GRAZING RESTRICTION: Do not pasture livestock within 7 days of spraying.

NON-CROPLAND: Use 1 - 2.5 L/ha early in the summer. For small areas use 25 mL/100m². Do not graze treated pasture within 7 days of spraying.

TURF: (including fairways and lawns): Use 1 - 2.5 L/ha (depending on weed susceptibility) in 300 L of water/ha. For smaller areas 25 mL in 10 L of water treats 100 m².

FOR FAIRWAYS AND LAWNS: For mixed weed populations, add 1 - 2.5 L/ha of MCPA AMINE 500 to 5 L/ha of MECOPROP (150 g/L active). Follow any specific instructions on tank mix partner label. Spray when the plants are growing vigorously.

WEEDS CONTROLLED: MCPA AMINE 500 + MECOPROP

SUSCEPTIBLE:

- Common chickweed (*Stellaria media*)
- Mouse-ear chickweed (*Cerastium vulgatum*)
- Plantain (*Plantago* sp.)
- Clover (*Trifolium* spp.)

MODERATELY SUSCEPTIBLE:

- Buttercup (*Ranunculus* spp.). Spray before flowering.
- Creeping charlie (*Glechoma hederacea*). In early June or September.
- Black medick (*Medicago lupulina*). When young and growing fast.
- Dandelion

FAIRWAYS and LAWNS: For control of the following mixed weed populations, use a tank mix of 1 - 2.5 L of MCPA AMINE 500 plus 3.7 L of MECOPROP (150 g/L active) plus 150 mL of DYCLEER 480 in 300 L water per hectare for adequate coverage:

- | | |
|-------------------------------|---------------------------------|
| Black medick | Knot weed |
| Buttercups | Lamb's-Quarters |
| Chickweed, Common | Mustard |
| Chickweed, Mouse-ear | Pigweed |
| Clovers | Plaintains |
| Creeping charlie (Ground Ivy) | Purslane |
| Curled Dock | Ragweed |
| Dandelions | Shepherd's purse |
| Field & Hedge bindweed | Stickwort |
| Heal-all | Smartweeds |
| Horsetail | Wild carrot |
| | Many other common weeds in turf |

Applications under hot/dry conditions may result in yellowing of turf.

Apply when weeds are young and actively growing. Works slower than 2,4-D mixtures and it may take 3 weeks for the weeds to be controlled.

Mixtures containing dicamba should not be used on bentgrass.

FERTILIZER MIXES: MCPA AMINE 500 or MCPA + MECOPROP or MCPA + DICAMBA + MECOPROP may be mixed with liquid fertilizer or impregnated on dry fertilizer.

RE-ENTRY INTERVAL: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treated areas until spray has thoroughly dried.

FOR SPRUCE SEEDLINGS FOR REFORESTATION: To control Field Horsetail, apply 700 mL MCPA AMINE 500 in 200 L water per hectare by ground application. Apply when the spruce seedlings are in the dormant stage or after the new shoots have hardened off; apply only to seedlings that are 2 years or older. Make only one application per year.

MIXING CHART

Dosage as Recommended	LITRES OF MCPA AMINE 500 to add to the spray tank* for SPRAYER CAPACITY OF			
	1000 L	670 L	540 L	450 L
RATE/HECTARE				
550 mL	12.5	7.6	6.8	5.4
700 mL	15.7	10.7	8.6	7.1
1 L	23.5	16	12.8	10.8
1.5 L	31.4	21.3	17.1	14.3
2.5 L	54.9	37.1	30	25.7

* Assuming sprayer is to deliver 45 L/ha of final spray solution.

CAUTION

Do not apply directly to or otherwise permit contact with vegetables, flowers, grapes, fruit trees, ornamentals, or other desirable plants which are sensitive to MCPA and similar materials and do not permit spray mist to drift onto them, since even minute quantities of the spray may cause severe injury during both growing and dormant periods. (Coarse sprays are less likely to drift). Accordingly, application by airplane, ground rigs, and hand dispensers should be carried out only when there is no hazard from drift.

Excessive amounts of MCPA in the soil may temporarily inhibit seed germination or plant growth.

To avoid injury to desirable plants, do not store, handle or apply other agricultural chemicals with the same containers or equipment used for MCPA AMINE 500. Do not store near fertilizers, seeds, insecticides or fungicides. Do not contaminate irrigation ditches or water used for domestic purposes.

Local conditions affect the use of herbicides. Provincial authorities issue recommendations to fit local conditions. Be sure that use of this product conforms to all applicable regulations.

NOTE: Prevent from freezing. If subjected to subfreezing temperature, MCPA AMINE 500 should be warmed to at least 5°C and mixed thoroughly before using. Rolling the drum a few minutes will accomplish this.

It is inadvisable to spray other chemicals after using the equipment for spraying MCPA. If it must be used, be sure it has been thoroughly cleaned. Rinse well with water containing a small amount of detergent. Fill with a weak solution of household ammonia or ALL CLEAR LIQUID tank cleaner, allow to stand overnight, drain and thoroughly rinse with water.

TOXICOLOGICAL INFORMATION:

Treat symptomatically.

FIRSTAID

In case of contact, flush eyes with plenty of water for at least 15 minutes and get medical attention. If on skin, wash skin with soap and plenty of water. If swallowed induce vomiting. Get medical attention or contact a poison control centre. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

REFILLABLE CONTAINERS: For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse container for any other purpose.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER: This control product is to be used only in accordance with the directions on this label. It is an offence under the *Pest Control Products Act* to use a control product under unsafe conditions.

NOTICE TO BUYER: Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.