

# **MCPA DMA 500**

LABEL

**GROUP HERBICIDE** 4

LIQUID HERBICIDE AGRICULTURAL READ THE LABEL AND ATTACHED LEAFLET BEFORE USING GUARANTEE: MCPA (present as dimethylamine salt) 500 g a.e./L WARNING: CONTAINS THE ALLERGEN, SOY REGISTRATION NO. 27858 PEST CONTROL PRODUCTS ACT





**DANGER – CORROSIVE TO EYES AND SKIN SKIN IRRITANT POTENTIAL SKIN SENSITIZER** 

# Albaugh, Inc.

1525 NE 36th Street, Ankeny, Iowa USA 50021 1-800-247-8013

# **DIRECTIONS FOR USE**

DO NOT APPLY MORE THAN ONCE PER GROWING SEASON.

# **Grazing Restrictions**

- Do not permit lactating dairy animals to graze fields within 7 days after application.
- Do not harvest forage or cut hay within 7 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.

# **USE PRECAUTIONS**

- Do not apply during periods of dead calm or when winds are gusty. Do not overspray non-target terrestrial or aquatic habitats. These include: grassland, forested areas, shelter belts, woodlots, hedgerows, pastures, rangelands, and shrublands, lakes, rivers, sloughs, ponds, coulees, prairie potholes, creeks, marshes, streams, reservoirs, wetlands and estuarine/marine habitats. Avoid drifting of spray onto any body of water or other non-target areas.
- Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply when wind velocity and direction pose a risk of spray drift. Use caution when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.
- Do not spray on exceptionally hot days over 27°C.
- Clean spray equipment thoroughly after use and rinse with clean water. Do not use spray equipment to apply other pesticides to crops sensitive to this product. Do not reuse empty containers.

# To Prepare a Spray

Add half the required amount of water to the spray tank, then add with agitation the required amount of the product as shown for the different uses (for tank mixes, add MCPA first unless combining with TCA), and finally the balance of the water with continued agitation. Provide agitation to ensure uniformity of spray mixture.

# **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-247-8013 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

# **CROP USE**

# **Ground Application**

Use 100–240 L of spray solution per hectare depending on the type of application equipment used. Use sufficient water for even distribution. Spray at low pressures (200 to 275 kPa) when the weeds are actively growing. Do not spray in winds exceeding 25 km per hour.

During mixing, loading, application, clean-up and repair activities, wear coveralls over a long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves. In addition, when mixing/loading, wear goggles or face shield. Aerial applicators and applicators using a closed cab are not required to wear chemical-resistant gloves.

Re-entry is not permitted until 12 hours after application for all agricultural scenarios, unless otherwise indicated.

For hand harvesting of corn (field and sweet), re-entry is not permitted until 15 days after application. As such, a preharvest interval (PHI) of 15 days after application is required.

For pastures, a maximum of 2 applications is permitted per season, with a minimum retreatment interval of 90 days.

# Field sprayer application

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) coarse classification. Boom height must be 60 cm or less above the crop or ground.

# Aerial Application (including fixed and rotary wing aircraft)

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Apply a minimum of 30 L of spray solution per hectare depending on the type of application system being used. Use boom pressures of 235 kPa or less. Avoid placing nozzles where spray will enter wing tip vortices. Do not spray in winds exceeding 16 km per hour.

# **Aerial Use Precautions**

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the *National Aerial Pesticide Application Manual*, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) coarse classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length MUST NOT exceed 65% of the wingspan or rotorspan.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas.

# **Aerial Operator Precautions**

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

- Aerial applicators must wear long pants and a long-sleeved shirt.
- Mixers/loaders must wear coveralls over a long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves and goggles or face shield during mixing, loading, clean-up and repair activities.
- Aircraft must be closed cab.
- Mixer/loader and applicator must be different individuals.
- No human flaggers permitted.

Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

# Surface Runoff

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g., soils that are compacted, fine-textured, or low in organic matter such as clay).

Avoid applying this product when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip (buffer zone) between the treated area and the edge of the water body.

### Leaching

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

### Uses

## **Crop:** WHEAT, BARLEY, RYE

**Treatment Stage:** For ground or aerial application. Treat from the 4th leaf to just before the flag leaf (shot blade) stage. NOTE: Do not treat cereals underseeded to legumes.

NOTE: Rates over 1.1 L/ha may cause crop injury.

# Crop: OATS

**Treatment Stage:** For ground or aerial application. Oats may be treated from emergence. Use lowest rate at 3- to 6-leaf stage. NOTE: Do not treat cereals underseeded to legumes. NOTE: Rates over 1.1 L/ha may cause crop injury.

**Crop:** FLAX (excluding low-linolenic acid varieties)

**Treatment Stage:** For ground or aerial application. Spray after plant reaches 5 cm in height and before the bud stage. NOTE: Rates over 0.85 L/ha may cause crop injury. Maximum application rate for flax is 1.1 L/ha.

**Susceptible Weeds:** Burdock, Cocklebur, Mustards (except Dog Mustard), Ragweed, Flixweed\*, Kochia, Lamb's-Quarters, Russian Pigweed, Shepherd's Purse, Stinkweed.

\*Flixweed susceptible only at seedling stage. Use rates for harder-to-kill weeds to kill fall-germinated flixweed in the spring.

# Rates to Use on Susceptible Weeds:

Small seedlings, good growing conditions: 0.7 L/ha Weeds in bud, dry or cool weather or heavy infestation: 1.1 L/ha

**Harder-to-Kill Weeds:** Annual Sow-thistle\*, Bluebur, Blue Lettuce\*, Canada Thistle\*, Peppergrass, Curled Dock, Dog Mustard, Goosefoot, Hemp-nettle (suppression only), Redroot Pigweed, Russian Thistle\*, Perennial Sow-Thistle\*, Leafy Spurge\*.

\*Top growth control only.

# Rates to Use on Harder-to-Kill Weeds:

Small seedlings growing rapidly, good growing conditions: 1.25 L/ha Weeds in bud, dry or cool conditions or heavy infestation:

1.75 L/ha

# Crop: WINTER WHEAT, FALL RYE

**Treatment Stage:** For ground or air application. Treat in spring from time crop commences growth to flag leaf stage. NOTE: Do not treat cereals underseeded to legumes. NOTE: Rates over 0.50 L/ha applied between the 3rd and 6th leaf may cause crop injury.

**Susceptible Weeds:** Burdock, Cocklebur, Mustards (except Dog Mustard), Ragweed, Flixweed\*, Kochia, Lamb's-Quarters, Russian Pigweed, Shepherd's Purse, Stinkweed.

\*Flixweed susceptible only at seedling stage. Use rates for harder-to-kill weeds to kill fall-germinated flixweed in the spring.

# Rates to Use on Susceptible Weeds:

Small seedlings, good growing conditions: 0.55 L/ha Weeds in bud, dry or cool weather or heavy infestation: 1.1 L/ha

**Crop:** GREEN PASTURES (established)

**Treatment Stage:** For ground or air application. Treat in spring or fall (good growing conditions) for best results.

**Susceptible Weeds:** Burdock, Cocklebur, Plantain, Creeping Buttercup, Flixweed, Kochia, Horsetail, Lamb's-Quarters, Mustards, Prickly Lettuce, Ragweed, Russian Pigweed, Shepherd's Purse, Stinkweed, Wild Radish.

# **Rates to Use on Susceptible Weeds:**

2 L/ha

**Harder-to-Kill Weeds:** Blue Lettuce\*, Canada Thistle\*, Curled Dock, Dandelions, Dog Mustard, Goatsbeard, Goosefoot, Hempnettle (suppression only), Leafy Spurge, Peppergrass, Redroot Pigweed, Sow-Thistle\*, Tumbleweed.

\*Top growth control only.

# Rates to Use on Harder-to-Kill Weeds:

3.5 L/ha

# Crop: CORN (Field and Sweet)

Treatment Stage: For ground application ONLY. Treat before corn is 15 cm high.

**Susceptible Weeds:** Burdock, Cocklebur, Mustards (except Dog Mustard), Ragweed, Flixweed\*, Kochia, Lamb's-Quarters, Russian Pigweed, Shepherd's Purse, Stinkweed.

\*Flixweed susceptible only at seedling stage. Use rates for harder-to-kill weeds to kill fall-germinated flixweed in the spring.

# Rates to Use on Susceptible Weeds:

Small seedlings, good growing conditions: 0.75 L/ha Weeds in bud, dry or cool weather or heavy infestation: 1.25 L/ha Crop: PEAS, FIELD AND CANNING (except Nova Scotia)

**Treatment Stage:** For ground application ONLY. Spray when vine length is 10–20 cm. NOTE: Do not combine with Malathion.

DO NOT APPLY BY AIR.

**Susceptible Weeds:** Mustards (except Dog Mustard), Ragweed, Flixweed, Kochia, Lamb's-Quarters, Russian Pigweed, Shepherd's Purse, Stinkweed.

# Rates to Use on Susceptible Weeds:

Small seedlings, good growing conditions: 0.33 L/ha Weeds in bud, dry or cool weather or heavy infestation: 0.55 L/ha

# TANK MIXES WITH Agri Star MCPA DMA 500

Use tank mixes only when they are registered and recommended. Read and follow the directions, warnings, precautions and grazing limitations on both products used in a tank-mix. Ensure all components of tank-mix are registered for aerial application. Consult the labels of the tank-mix partners and observe the largest buffer zone (if specified) of the product involved in the tank mixture. Do not exceed the application rates given on the label for each product.

# TANK MIX 1:

Agri Star MCPA DMA 500 + Banvel or Banvel II Herbicide.

**Crop:** WHEAT, BARLEY

Treatment Stage: See Dicamba label and Agri Star MCPA DMA 500 details above.

**Susceptible Weeds:** Broadleaf weeds susceptible to MCPA (see above) plus Canada and Sow-thistle, Wild Buckwheat, Green Smartweed, Cow Cockle, Hemp-nettle and Ladysthumb.

# **Rates to Use:**

tar MCPA DMA 500	0.75 L/ha
mba 480	0.29 L/ha
tar MCPA DMA 500	0.85 L/ha
mba 480	0.23 L/ha
	tar MCPA DMA 500 Imba 480 tar MCPA DMA 500 Imba 480

# TANK MIX 2:

Agri Star MCPA DMA 500 + Linuron 480

**Crop:** WHEAT, BARLEY, OATS **Treatment Stage:** Apply at the 3- to 4-leaf stage. Damage may occur if this combination is applied beyond the 4-leaf stage.

**Susceptible Weeds:** Broadleaf weeds susceptible to MCPA (see above) plus Hemp-nettle, Chickweed, Buckwheat, Smartweed and Lady's-thumb.

# Rates to Use:

Agri Star MCPA DMA 500	1.1 L/ha
+ Linuron 480	0.47-0.57 L/ha

**TANK MIX 3:** IN WESTERN CANADA ONLY Agri Star MCPA DMA 500 + Sencor 500F Herbicide

**Crop:** SPRING BARLEY, SPRING WHEAT **Treatment Stage:** After weeds emerge and crop is in the 3- to 5-leaf stage.

**Susceptible Weeds:** Broadleaf weeds susceptible to MCPA (see above) plus Hemp-nettle, Chickweed, Volunteer Rape, Tartary Buckwheat.

# Rates to Use:

BARLEY:	Agri Star MCPA DMA 500	1.25 L/ha
	+ Metribuzin 500	1.1 L/ha
OATS:	Agri Star MCPA DMA 500	1.25 L/ha
	+ Metribuzin 500	2.25 L/ha

# **Buffer Zones to Protect Sensitive Habitat**

Use of the following spray methods or equipment DO NOT require a buffer zone: handheld or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

			Buffer Zones (metres) Required for the Protection of:				
Method of	Сгор		Freshwater Habitats of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial
Application			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	Habitat
Field sprayer*	Cereals, flax, corn (field and sweet), vegetable crops pastures		1	1	1	1	4
Aerial	Terrestrial Food and Feed Crops						
	Cereals, flax	Fixed wing	1	0	1	0	60
		Rotary wing	1	0	1	0	50
	Pastures	Fixed wing	5	1	1	1	100
		Rotary wing	4	1	1	1	80

\*For field sprayer application, buffer zones can be reduced with the use of drift-reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labeled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labeled buffer zone can be reduced by 30%.

# **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, Agri Star MCPA DMA 500 is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Agri Star MCPA DMA 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 AgriStar MCPA DMA 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 (or other mechanical), 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 and to report suspected resistance, contact Albaugh, Inc. representatives at 1-800-247-8013.

# **PRECAUTIONS:**

Harmful if swallowed. Corrosive to eyes. DO NOT get in eyes. May irritate the skin. Avoid contact with skin. Potential skin sensitizer.

During mixing, loading, application, clean-up and repair activities, wear coveralls over a long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves. In addition, when mixing/loading, wear goggles or face shield. Aerial applicators and applicators using a closed cab are not required to wear chemical-resistant gloves.

Re-entry is not permitted until 12 hours after application for all agricultural scenarios, unless otherwise indicated.

For hand harvesting of corn (field and sweet), re-entry is not permitted until 15 days after application. As such, a preharvest interval (PHI) of 15 days after application is required.

For pastures, a maximum of 2 applications is permitted per season, with a minimum retreatment interval of 90 days.

Wash thoroughly after handling. Wash contaminated clothing before reuse. Destroy contaminated shoes and leather articles.

Do not use in residential areas, which are defined as sites where bystanders may be present during or after spraying, including homes, schools, parks, playgrounds, playing fields and public buildings.

- 1. KEEP OUT OF THE REACH OF CHILDREN.
- 2. Avoid contact with eyes, skin and clothing. May cause skin irritation.
- 3. Do not breathe spray mist or vapours. Avoid spray or vapour drifts onto susceptible plants such as grapes, tomatoes, tobacco, sugar beets, sunflowers, beans, turnips, cauliflower, cabbage, alfalfa, clover, peas, potatoes, ornamental trees, shrubs or flowers, fruit trees, lawns, most vegetable crops or other desirable vegetation.
- 4. Do not use in a greenhouse.
- 5. Keep in original container during storage.
- 6. Do not store near seeds, feeds, fertilizers or pesticides used on crops sensitive to this product.
- 7. Keep away from fire or open flame and other sources of heat.
- 8. Never wear contact lenses while working with this material.
- 9. Avoid contamination of food.

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., visit CropLife Canada's web site at: <u>www.croplife.ca</u>.

# **ENVIRONMENTAL HAZARDS:**

Toxic to aquatic organisms and non-target terrestrial plants. Observe the buffer zones specified under DIRECTIONS FOR USE.

# DISPOSAL

# For Recyclable Containers:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

# **For Returnable Containers:**

Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

# For Returnable-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 this container for any other purpose.

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.

# **FIRST AID**

**IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**IF ON SKIN/CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**IF IN EYES:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control centre or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for treatment advice.

Take the container label or product name and Pest Control Product Registration Number with you when seeking medical attention.

# **TOXICOLOGICAL INFORMATION**

No specific antidote. Treat symptomatically. Treatment should be based on judgement of the physician in response to reactions of the patient.

High concentrations of MCPA may cause severe irritation to the eyes. Symptoms of overexposure to MCPA could include slurred speech, twitching, jerking and spasms, drooling, low blood pressure and unconsciousness. Treat symptomatically.

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.