

2000/2005

AGRICULTURAL

4 litres  
10 litres

**2,4-D AMINE 500**

LIQUID WEEDKILLER

For Selective Weed Control in Wheat, Barley, Oats, Flax, Rye, Corn,  
Established Pastures, Rangeland, Turf, Roadside, Non-Cropland

**WARNING**

**POISON**

KEEP OUT OF REACH OF CHILDREN  
**READ THE LABEL BEFORE USING**

GUARANTEE:

2,4-D (isomer specific) (present as amine) 470 g per litre

REGISTRATION NO. 2238 PEST CONTROL PRODUCTS ACT

ZENECA Agro, a business of ZENECA Corp.  
#250, 3115 - 12<sup>th</sup> Street NE  
Calgary, Alberta T2E 7J2

A95/A-1

**PRECAUTIONS**

**KEEP OUT OF REACH OF CHILDREN.** Harmful if swallowed. Causes irritation of eyes and skin. Avoid contact with eyes, skin and clothing. Do not wear contact lenses when using chemicals. Do not smoke, eat, or drink while using this product. Do not mix with fertilizers containing nitrogen. Do not use the same sprayer for this product and other pesticides to be applied to susceptible crops or plants. Do not contaminate food, water supplies or animal feed. Keep any unused product in resealed original container away from food, feed, or fertilizer.

**FIRST AID**

In case of poisoning, call physician. **If on skin**, wash thoroughly with soap and water. **If in eyes**, flush with water for 5-10 minutes and get medical aid. **If swallowed, do not induce vomiting, call a physician or Poison Control Centre.**

#### **TOXICOLOGICAL INFORMATION**

Contains 2,4-D and petroleum distillates. If stomach evacuation is necessary, avoid aspiration. Use activated charcoal to adsorb any remaining product in gut. Treat symptomatically for CNS depression (ingested) or irritation (on eyes and skin).

#### **EMERGENCY TELEPHONE NUMBER**

All hours, 1-800-327-8633 **ONLY** for health and environmental information.

#### **STORAGE**

Store in a cool dry well ventilated area away from foodstuffs and out of the reach of children and animals. Keep product from freezing. Avoid freezing: If frozen, warm to at least 5°C and shake thoroughly before opening and using.

#### **PROTECTIVE CLOTHING AND EQUIPMENT**

**Handling the concentrate (mixing and loading):** wear long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes, and protective eye wear (face shield or safety glasses). Rinse gloves before removal.

Coveralls or a chemical-resistant apron should also be worn when open pouring from containers greater than 5 L.

**Handling the dilute spray solution (during application or repairing or cleaning equipment):** wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Rinse gloves before removal.

Gloves are not required during application when applicator is in an enclosed tractor or in an enclosed airplane cockpit.

#### **OPERATOR USE PRECAUTIONS**

- \* Wear freshly laundered clothing and clean protective equipment daily.

- \* Rinse gloves before removal.
- \* Wash hands before eating, drinking, using tobacco or using the toilet.
- \* If herbicide penetrates clothing remove immediately; then wash thoroughly and put on clean clothing. Throw away clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.
- \* After using this product, remove clothing and launder separately and promptly, and thoroughly wash hands and exposed skin with soap and water. Follow manufacturer's instructions for cleaning personal protective clothing and equipment. If no such instructions for washables are provided, use detergent and hot water. Keep and wash personal protective equipment separate from household laundry.
- \* After work, remove all clothing and shower using soap and water.

#### **DISPOSAL**

1. Rinse the emptied container thoroughly and add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions 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 the disposal of unused, unwanted product and the cleanup of spills, contact the Provincial Regulatory Agency or the Manufacturer.

#### **USE PRECAUTIONS FOR AERIAL APPLICATION TO CEREAL CROPS, ESTABLISHED PASTURE, RANGELAND, STUBBLE, NON-CROPLAND**

- \* Avoid direct applications to any body of water. Do not contaminate water through spray drift or cleaning of equipment or disposal of wastes.

- \* Use a minimum of 30 L/ha spray volume. 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.

#### **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.

#### **DIRECTIONS FOR USE**

Do not apply in vicinity of desirable susceptible plants such as grape, tomatoes, tobacco, sugar beets, sunflowers, soybeans, cauliflower, cabbage, or other field, vegetable or fruit crops or ornamentals. Do not allow spray to contact susceptible plants. Coarse sprays are less likely to drift. Applications should be carried out only when there is no hazard from drift. For lawns and fairways, treat a small area first to test the effect on clover and bent grasses. Do not mix with liquid fertilizers containing nitrogen.

#### **DIRECTIONS GROUND OR AIRCRAFT APPLICATION**

**WHEAT, BARLEY and RYE:** Treat only from 4 leaf to flag-leaf stage. Treatment at the 4 leaf stage usually combines maximum crop tolerance and weed susceptibility. Do not apply before the 4 leaf stage or leaf and spike deformities will develop. Do not apply after the flag-leaf stage or during boot and flowering stages to avoid sterility. If weeds warrant spraying prior to 3 leaf stage, METHOXONE® (MCPA) results in less crop injury than 2,4-D.

#### **Pre-harvest Intervals**

- \* Do not permit lactating dairy animals to graze fields within 7 days after application.
- \* Do not harvest forage or cut hay within 30 days after application.
- \* Withdraw meat animals from treated fields at least 3 days before slaughter.

**WINTER WHEAT and FALL RYE:** Treat in spring when crop commences growth until the flag-leaf stage. Do not apply in fall. Do not apply if crop is underseeded to legumes, particularly alfalfa and sweet clover, unless injury to legumes can be tolerated.

#### **Pre-harvest Intervals**

- \* Do not permit lactating dairy animals to graze fields within 7 days after application.
- \* Do not harvest forage or cut hay within 30 days after application.
- \* Withdraw meat animals from treated fields at least 3 days before slaughter.

**CORN:** Apply when corn is 15 cm high and when most weeds have germinated but are still in the seedling stage. When corn is higher than 15 to 20 cm use drop nozzles directing spray at base of plants up until corn is 75 cm high, or prior to two

weeks before silking or tasselling. Apply at 1.1 L/ha in 50 to 200 L of water.

**Pre-harvest Interval**

- \* Do not permit lactating dairy animals to graze fields within 7 days after application.
- \* Do not harvest as forage within 30 days after application.
- \* Withdraw meat animals from treated fields at least 3 days before slaughter.

**CAUTION:** Do not use on PEAS, LEGUMES UNDERSEED CROPS: On these use METHOXONE (MCPA). Local conditions may affect the use of herbicides. Provincial agricultural authorities issue recommendations to suit local conditions. For aerial application exercise special care:

- 1) Do not spray in winds exceeding 8 km/h.
- 2) Do not spray in dead calm near sensitive plants. The "cloud" of suspended droplets may drift onto sensitive plants when wind comes up.
- 3) Spray only when wind is blowing away from a sensitive crop, shelterbelt or garden.

**SUGGESTED RATES TO USE ON CEREAL CROPS  
(NOT UNDERSEEDED TO LEGUMES)  
See Precautions**

WEED GROWTH	litres 2,4-D Amine 500 L.V. ha	grams 2,4-D acid per hectare	hectares treated per litre
<b>Very susceptible (easy to kill) Weeds:</b> Mustard, Ragweeds, Lamb's Quarters, Thyme-leaved Spurge	0.550 to 0.850	260 to 400	1.8 to 1.2

<b>Susceptible Weeds:</b> Cocklebur, Plantain, Dandelion (Lawn), Kochia, Prickly Lettuce, Russian Pigweed, Shepherd's Purse (seedling), Stinkweed (seedlings), Goat's-beard (seedlings)	0.850 to 1.1	400 to 517	1.2 to 0.9
<b>Intermediate Weeds:</b> Bluebur, Flixweed, Redroot Pigweed, Russian Thistle, Canada Thistle *, Shepherd's Purse, Oakleaved Goosefoot, Pineappleweed! Purslane, Dandelions (field)*, Curled Dock*, Dog Mustard*, Field Bindweed*	1.1 to 1.7	517 to 800	0.9 to 0.6
<b>Resistant (hard to kill) Weeds:</b> Chickweed, Chicory, Smartweed, Knotweed, Wild Buckwheat, Groundsel, Peppergrass, Lady's thumb, Mayweed, Field Horsetail, Night-Flowering Catchfly, Leafy Spurge**, Pineappleweed**, Blue Lettuce**, Sow Thistle**, Russian Knapweed**	1.7	800	0.6

**NOTE:** Apply lower rate to rapidly growing seedlings. Apply higher rate to heavy infestations. Apply in 45 to 225 L of water per hectare. The higher rate may cause injury which will frequently be offset by a higher relative yield from a less weedy crop.

- \* Top growth control for those weeds.
- \*\* Apply minimum rate 800 g/ha to control top growth.

**FAIRWAYS AND LAWNS:** Use 1.75 to 3.25 L/ha. Use 50-500 L of water/ha. For small areas 15 mL in 10 L water treats 100 m<sup>2</sup>. For mixed weed populations, better control will result from the use of Lawn Weedkiller.

- \* **Maximum Application Frequency to Turf:** For good turf/lawn management, normally two applications per year per treatment site are adequate. This does not include spot treatments.
- \* **Reentry Interval for Turf:** Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treated areas until spray has thoroughly dried.

**ESTABLISHED PASTURES, RANGELAND:** If no legumes are present, use 1.75 to 3.25 L/ha (15 to 30 mL/100 m<sup>2</sup>) early in summer when weeds are in bud or in the fall. For 2,4-D resistant weeds, consult the provincial spray guide. Repeat treatments may be necessary. If legumes are present use METHOXONE (MCPA).

#### **Pre-harvest Interval**

- \* Do not permit lactating dairy animals to graze fields within 7 days after application.
- \* Do not harvest forage or cut hay within 30 days after application.
- \* Withdraw meat animals from treated fields at least 3 days before slaughter.

#### **NON-CROPLAND**

1. **ROADSIDE AND WASTELAND:** Use 2 to 4.25 L/ha in June to July (30 to 45 mL/100 m<sup>2</sup>). Use low pressure and apply at least 550 L of water per hectare using at least 1700 L of water per hectare on dense weeds and Wild Carrot. For 2,4-D resistant weeds, consult the provincial spray guide.
2. **WOODY PLANTS IN NON-CROPLAND AND WASTE AREAS:** Willow, Alder Sumac, Elderberry - Use 3.6 to 9 L/ha in 1000 L of water. Wet foliage and stems to the point of run-off. Cut off brush or trees over 2 m and spray regrowth.
3. **WOODY GROWTH: WESTERN CANADA ONLY:** Such as western

snowberry, willows, poplars in pastures and rangelands, drainage ditches, roadside use 2 to 4.5 L/ha (1 to 2.25 kg 2,4-D acid) in 150 or more litres of water when plants are in full leaf. For mixed woody growth resistant to 2,4-D, consult provincial spray guide.

4. **INDUSTRIAL SITES: Brush Foliage Treatment by Ground**

**Application** - Spray woody growth up to 2.5 meters tall after foliage is well developed using a drenching spray containing 9.0 L of product per 1000 L of water. Some taller brush can be sprayed - successfully, although in many cases, basal bark or stump treatment is preferable. Poison ivy, some brambles and certain other susceptible species may be controlled by using 5 L per 1000 L of water. Coverage should be complete and all parts of the plants, including foliage, shoot stems and bark, should be wet with spray. Best results usually will be obtained from applications made soon after maximum foliage development in the spring. Less effective control may result during prolonged hot, dry weather. With good growing conditions, applications may be made up to 2 to 3 weeks before normal frost time. Repeat applications may be necessary as new growth develops.

**Roadside and General Weed Control** - For taller weed growth such as in vacant lots, on roadside and along fence rows, sufficient spray should be used to wet all foliage. Use at the rate of 3.75 L in 1000 L of water. Deep rooted perennial weeds such as bindweed and Canada thistle may require repeated applications as new growth appears.

**For Treatment of Small Trees** - 40 mL of product in 11 L of water is approximately equivalent to 10 L in 1000 L.

5. **INDUSTRIAL AND FOREST SITES (For Control of Red Alder and Willow): Stump Treatment**

- Where growth is greater than 2-3 meters, cut it close to the ground (at least 50 cm) and treat all the stumps and stubs. Use a solution of one part 2,4-D Amine 500 to 2 parts of water and apply with a brush or sprayer to obtain complete coverage of all cut surfaces. Apply at any time including the winter months preferable to freshly cut stumps. Best results are obtained on stumps 5 cm across or larger. Trash from brush cutting operations such as sawdust, leaves, branches, etc. should be removed from the base of the stumps before the chemical is applied.

**Frilling and Injector Treatment** - For trees over 15 cm

DBH make a complete frill around the tree by making a series of overlapping axe cuts. For trees smaller than 15 cm make one notch for each 3 cm of diameter. Prepare the injection solution by diluting one part of 2,4-D with 2 parts of water. Inject 1 mL of this solution into each notch cut into the tree. For trees with a complete frill, apply as much solution as the frill will hold without runoff. The notch or injector hole should be angled downward so as to retain the chemical. Spacing is important.

**Pre-harvest Intervals (NON-CROPLAND USES)**

- \* Do not permit lactating dairy animals to graze fields within 7 days after application.
- \* Do not harvest forage or cut hay within 30 days after application.
- \* Withdraw meat animals from treated fields at least 3 days before slaughter.

**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.

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