

Nufarm

GROUP	4	HERBICIDE
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AMKIL 2,4-D 500 Liquid Herbicide

CONTAINS 2,4-D AMINE

FOR THE CONTROL OF BROADLEAF WEEDS IN WHEAT, BARLEY AND CERTAIN OTHER CROPS

AGRICULTURAL

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

GUARANTEE: 2,4-D (isomer specific) 475 grams per litre.
(present as amine salt)

REGISTRATION NO. 14722 PEST CONTROL PRODUCTS ACT

WARNING



POISON

Nufarm Agriculture Inc., 5507 1st Street SE
Calgary, Alberta T2H 1H9

24 hours Emergency Response Number 1 800-424-9300

DIRECTIONS FOR USE

Amkil 2,4-D 500 Liquid Herbicide is only effective for those weeds that are SUSCEPTIBLE to 2,4-D amine. Weeds should be small and actively growing for best results.

TRANSFER SYSTEM: For containers larger than 20L: Use a transfer system that avoids open pouring when transferring the liquid concentrate from such containers into the spray tank.

CROP	Method	RATE PER HECTARE
Wheat, Barley, Rye (NOT underseeded with legumes)	Apply when cereal crop is between 3-leaf expanded stage and early flag leaf (shot blade) stage; cereals are then 10-15 cm high. Treat fall-sown grain in spring between full tillering and flag-leaf stages. Never apply between flag-leaf and fully headed stage.	700 mL-1.7 L in 50-200 L water
Wheat, Barley, Rye, underseeded with legumes	Apply when legumes are 4-5 cm high while weeds and grain protect legumes. Spray before cereals reach boot stage. Never apply on alfalfa varieties or on sweet clover unless injury to legumes can be tolerated.	600 mL in 50-200 L water
Woody Growth (established pastures, drainage ditches, roadsides)	For control of Western Snowberry, Willows, poplars, apply when plants are in full leaf.	2.2L-4.5 L in 100-150 L water
Lawn turf, established pastures (without legumes), Rangeland, Roadsides, Waste Areas	Spray during active growth stage (May, June, Sept.) Repeat as necessary. Never apply on band grass, alfalfa; also injures clovers, other legumes. For best time of application on perennial weeds, consult Provincial Weed Guide.	2-3.5 L in 200-300 L water. Small areas, 30 mL in 30L per 100 sq. m.

Field Corn, Post Emergence	Apply when field corn has reached 15 cm height. All corn can be sprayed between 15-30 cm if using drop pipes to keep spray off whorl. All measurements based on outstretched leaves. Avoid cultivation for 2-3 weeks following spraying. In case of drought, delay spraying until 1 week following rain.	550 mL-1.1 L in 50-200 L water
Strawberry	Spray first year planting AFTER showing new growth, but BEFORE runnering. Spray second or older planting AFTER picking season, but BEFORE late August.	1.1 L in 50-200 L water 2 L in 50-200 L water
Raspberry	Apply at any time of season, except when canes are in bloom. Avoid spraying on young canes	1.1 L in 100-200 L water
Asparagus	Apply early in season before first spears show, and/or 3 weeks after the post harvest disking. Keep spray off the fern during the second spray	3.5 L in 50-200 L water

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.

FOR LAWN AND TURF APPLICATIONS:

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

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.

PLANTS SUSCEPTIBILITY TO 2,4-D AMINE

1. WEEDS CONTROLLED BY 2,4-D AMINE:

SUSCEPTIBLE: Stinkweed, wild mustard, ball mustard, bluebur, burdocks, chicory, cocklebur, ragweeds, false flax, field horse-tail, flixweed, kochia, hare's ear mustard, indian mustard, lambsquarters, plantain, prostrate pigweed, shepherd's purse, vetch, wormseed mustard.

MORE RESISTANT: Annual sow-thistle*, biennial wormwood*, blue lettuce*, Canada thistle*, chickweed, curled dock, dandelions*, dog mustard*, field bindweed*, lady's thumb, perennial sow-thistle*, purslane, redroot pigweed, smartweeds, tansy, Tartary buckwheat.

HARD TO CONTROL: Hemp-nettle*, horsetail*, leafy spurge*, Russian knapweed*. *Top growth control only.

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed or inhaled. Avoid contact with skin, eyes or clothing. Sprays and vapours may injure broadleaf crops such as tobacco, vegetables, fruits and ornamentals. Use only for recommended purposes and at recommended rates. Do not use the same spray equipment for other purposes. Keep in original container during storage. Do not contaminate water supplies, irrigation ditches, ponds lakes or streams.

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.

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 5L.

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.

This product may be applied with ground or aerial spraying equipment. Aerial spraying is specialized, hence qualified technical guidance should be obtained for each job. Employ a competent, reliable operator and become familiar with laws governing the application of herbicides. Do not use aerial sprays in areas where possible drift may injure valuable broadleaf crops.

Generic Aerial Application Label Instructions

Directions for Use

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.

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 *Basic Knowledge Requirements for Pesticide Education in Canada: Applicator Core and Aerial Module*, developed by CAPCO.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

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 during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

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.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. 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.

Product Specific Precautions

Read and understand the entire label before opening this product. If you have questions, call the manufacturer 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:

Volume: Apply the recommended rate in a minimum spray volume of 30 litres per hectare.

Other precautions specific to aerial uses should be included in this area, e.g., buffer zones around field edges or aquatic habitat, etc.

USE PRECAUTIONS FOR AERIAL APPLICATION (to cereal crops, pasture, rangeland, stubble and non-crop land):

- Avoid direct applications to any body of water. Do not contaminate water through spray drift or by 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.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, Amkil 2,4-D 500 Liquid Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Amkil 2,4-D 500 Liquid Herbicide 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 Amkil 2,4-D 500 Liquid Herbicide 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 or to report suspected resistance, contact Nufarm Agriculture Inc. at 1-800-868-5444 or at www.nufarm.ca.

FIRST AID: **If swallowed**, give patient one to two glasses of water and cause vomiting by inserting a finger down the throat; repeat until vomit fluid is clear. Take patient to nearest hospital or contact a Poison Control Centre. **In case of skin contact**, remove contaminated clothing and wash skin with soap and water. **If in eyes**, flush with plenty of water for 15 minutes and 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

TOXICOLOGICAL INFORMATION: No specific antidote. Employ supportive care. Treatment should be based on judgement of the physician in response to reactions of the patient.

STORAGE: Do not store at temperatures below - 15° C and mix thoroughly before using.

DISPOSAL: 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 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 and property arising from the use or handling of this product and accepts the product on that condition.

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