

[Sleeve]

GROUP 4 HERBICIDE

Nufarm

2,4-D Amine 500
Liquid Herbicide

CONTAINS 2,4-D AMINE SOLUTION

For use in wheat, barley, rye, corn, strawberries, raspberries, asparagus, cranberries, established pastures, rangeland, turf, stubble land, roadsides, uncropped land and control of woody growth.

COMMERCIAL

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

ACTIVE INGREDIENT: 2,4-D, present as dimethylamine salt ... 470 g a.e./L

REGISTRATION NO. 14725 PEST CONTROL PRODUCTS ACT

WARNING POISON

(1 – 450) Litres

Nufarm Agriculture Inc.
5101, 333 - 96th Ave NE
Calgary, Alberta T3K 0S3
1-800-868-5444

24 Hour Emergency Response Number 1-800-424-9300

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN.

Avoid contact with skin, eyes and clothing. Wash concentrate from skin or eyes immediately. Do not inhale fumes. Avoid breathing spray mist. Avoid spray drift. Store the container tightly closed and away from seeds, feeds, fertilizer, plants and foodstuffs. Avoid contamination of ponds, streams, rivers and other water sources.

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 website at: www.croplife.ca.

ENVIRONMENTAL HAZARDS:

Toxic to small mammals, birds, aquatic organisms and non-target terrestrial plants.

Observe buffer zones specified under DIRECTIONS FOR USE.

This product will harm other broadleaved plants in the vicinity of the treatment area. If applying this product using a handheld sprayer, do not directly spray or allow the spray to drift onto ornamentals or gardens.

Leaching

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

Run-off

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with moderate to steep slope, compacted soil, or clay.

Avoid application of this product when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a strip of untreated vegetation between the treated area and the edge of the water body.

To prevent runoff, avoid spraying on driveways, sidewalks or other hard surfaces. Do not irrigate within 24 hours after application.

PROTECTIVE CLOTHING AND EQUIPMENT:

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

Handling the dilute spray solution (during application or repairing or cleaning equipment): Wear coveralls over 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 an enclosed airplane cockpit.

When handling more than 564 L of Nufarm 2,4-D Amine 500 Liquid Herbicide per day, workers must also use a closed system.

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 the 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 clothing and personal protective equipment separate from household laundry.
- After work, remove all clothing and shower using soap and water.

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.

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 or 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 eye 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 eye. 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 further treatment advice.

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 judgment of the physician in response to reactions of the patient. This product may cause severe irritation to the eyes. Overexposure to 2,4-D may cause coughing, burning, dizziness or temporary loss of muscle coordination. Other possible effects of overexposure included fatigue, muscle weakness or nausea. Treat symptomatically.

EMERGENCY TELEPHONE NUMBERS:

For spills or transportation accidents, Chemtrec, 1-800-424-9300.

For health or environmental emergencies, Prosar, 1-877-325-1840.

For product and use information, Nufarm Agriculture Inc., 1-800-868-5444.

STORAGE:

Store at temperatures above 0°C. If subjected to freezing temperatures, warm to at least 5°C and mix thoroughly. Insecticides and fungicides should be segregated from herbicides so as to prevent the possibility of cross contamination. **SHAKE WELL BEFORE USING.**

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.

Disposal For Returnable Containers:

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

Disposal 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 use 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.

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.

[Booklet]

GROUP	4	HERBICIDE
-------	---	-----------

Nufarm

**2,4-D Amine 500
Liquid Herbicide**

CONTAINS 2,4-D AMINE SOLUTION

For use in wheat, barley, rye, corn, strawberries, raspberries, asparagus, cranberries, established pastures, rangeland, turf, stubble land, roadsides, uncropped land and control of woody growth.

COMMERCIAL

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

ACTIVE INGREDIENT: 2,4-D, present as dimethylamine salt ... 470 g a.e./L

REGISTRATION NO. 14725 PEST CONTROL PRODUCTS ACT

WARNING

POISON

Nufarm Agriculture Inc.
5101, 333 - 96th Ave NE
Calgary, Alberta T3K 0S3
1-800-868-5444

24 Hour Emergency Response Number 1-800-424-9300

PRECAUTIONS:**KEEP OUT OF REACH OF CHILDREN.**

Avoid contact with skin, eyes and clothing. Wash concentrate from skin or eyes immediately. Do not inhale fumes. Avoid breathing spray mist. Avoid spray drift. Store the container tightly closed and away from seeds, feeds, fertilizer, plants and foodstuffs. Avoid contamination of ponds, streams, rivers and other water sources.

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 website at: www.croplife.ca.

ENVIRONMENTAL HAZARDS:

Toxic to small mammals, birds, aquatic organisms and non-target terrestrial plants.

Observe buffer zones specified under DIRECTIONS FOR USE.

This product will harm other broadleaved plants in the vicinity of the treatment area. If applying this product using a handheld sprayer, do not directly spray or allow the spray to drift onto ornamentals or gardens.

Leaching

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

Run-off

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with moderate to steep slope, compacted soil, or clay.

Avoid application of this product when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a strip of untreated vegetation between the treated area and the edge of the water body.

To prevent runoff, avoid spraying on driveways, sidewalks or other hard surfaces. Do not irrigate within 24 hours after application.

PROTECTIVE CLOTHING AND EQUIPMENT:

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

Handling the dilute spray solution (during application or repairing or cleaning equipment): Wear coveralls over 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 an enclosed airplane cockpit.

When handling more than 564 L of Nufarm 2,4-D Amine 500 Liquid Herbicide per day, workers must also use a closed system.

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 the 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 clothing and personal protective equipment separate from household laundry.
- After work, remove all clothing and shower using soap and water.

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.

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 or 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 eye 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 eye. 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 further treatment advice.

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 judgment of the physician in response to reactions of the patient. This product may cause severe irritation to the eyes. Overexposure to 2,4-D may cause coughing, burning, dizziness or temporary loss of muscle coordination. Other possible effects of overexposure included fatigue, muscle weakness or nausea. Treat symptomatically.

EMERGENCY TELEPHONE NUMBERS:

For spills or transportation accidents, Chemtrec, 1-800-424-9300.

For health or environmental emergencies, Prosar, 1-877-325-1840.

For product and use information, Nufarm Agriculture Inc., 1-800-868-5444.

STORAGE:

Store at temperatures above 0°C. If subjected to freezing temperatures, warm to at least 5°C and mix thoroughly. Insecticides and fungicides should be segregated from herbicides so as to prevent the possibility of cross contamination. **SHAKE WELL BEFORE USING.**

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 rinsing 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.

Disposal For Returnable Containers:

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

Disposal 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 use 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.

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.

DIRECTIONS FOR USE:

DO NOT apply this product directly to freshwater habitats such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands, estuaries or marine habitats.

DO NOT contaminate irrigation/drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, Nufarm 2,4-D Amine 500 Liquid Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Nufarm 2,4-D Amine 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 Nufarm 2,4-D Amine 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.

GENERAL USE PRECAUTIONS:

Avoid spray drift to any desirable vegetation NOT listed on this label as damage may occur.

Avoid contamination of ponds, streams, rivers and other water sources.

Do not spray during periods of high winds when spray is likely to drift. Coarse sprays are less likely to drift.

Do not spray during periods of high temperatures when crops may be under stress as damage to the crop may occur.

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.

EQUIPMENT AND SPRAY VOLUME:

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.

Apply in 50 to 200 litres of water per hectare by ground equipment unless otherwise indicated. Higher water volumes will reduce the risk of crop injury. Select nozzle tips to apply the recommended volume per hectare. Calibrate the sprayer and adjust the boom height to ensure uniform coverage. Nozzles must be in good condition and spraying the same volume. Flat fat nozzle tips are recommended.

Aerial application: 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 wing- or rotorspan.

Apply in a minimum of 30 litres of water per hectare by aerial equipment.

Knapsack, Spot Treatment Applications: Mix 200 mL of product in 10 L water. Spray to wet all foliage thoroughly.

MIXING:

Shake this product well before using. Half fill the spray tank with clean water. Add the required amount of product and agitate thoroughly. Fill the tank with clean water and agitate well before use.

NOTE: If spray solution has been left standing, agitate thoroughly before use.

TANK MIXES:

Nufarm 2,4-D Amine 500 Liquid Herbicide may be recommended in tank mix with other products.

Consult the label of the tank mix partner product, and follow the most stringent set of precautions, restrictions and directions for use.

TIMING:

For best results spray when WEEDS ARE YOUNG AND ACTIVELY GROWING. Apply in good growing conditions. Application must be made before the crop canopy shields the weeds.

CROP:

Spring Cereals (Wheat, Barley, Rye), not underseeded with legumes

APPLICATION TIME:

Crops may be sprayed from the full 3-leaf expanded to the early flag-leaf (shot blade) stage. Preferred application timing is the 4-leaf stage. Do not apply after the flag leaf stage. Treatment at the 4-leaf stage usually combines maximum crop tolerance with maximum weed susceptibility.

Do not apply more than one treatment per year.

METHOD:

Ground or Aerial application.

RECOMMENDED RATE PER HECTARE: Up to 1.1 L.

Higher rates may be needed to control certain weed species. Possible crop injury from these higher rates is usually offset by the increased yield of the cleaner crop.

CROP:

Winter Cereals (Winter Wheat, Fall Rye)

APPLICATION TIME:

In spring, from full tillering to the flag leaf stage.

Do not apply during and after the flag leaf stage.

Do not apply to seedling winter cereals in the fall.

Do not apply more than one treatment per year.

METHOD:

Ground or Aerial application.

RECOMMENDED RATE PER HECTARE: Up to 1.1 L.

Higher rates may be needed to control certain weed species. Possible crop injury from these higher rates is usually offset by the increased yield of the cleaner crop.

CROP:

Field Corn

APPLICATION TIME:

As an overall spray, before the corn is 15cm tall (leaf extended) and/or before the 6-leaf stage. Damage to corn may occur if an overall spray is applied beyond this stage.

For later applications (corn 15-75cm, leaf extended), use a shielded spray or a directed spray with drop pipes. Keep spray off corn foliage.

Do not spray within 2 weeks of silking or tasselling.
In case of very dry conditions, delay spraying until one week following rain.
Avoid cultivation for 2 weeks following spraying.
Use at least 100 L/ha water.
Do not add oil or surfactant.
Do not apply more than one treatment per year.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE: Up to 1.2 L.

CROP:

Asparagus (Eastern Canada Only)

APPLICATION TIME:

Apply early spring immediately after a thorough cutting or disking. Do not allow the emerging spears to come in contact with the spray. If emerging spears are contacted directly by spray or spray drift they may become distorted ie: twisted. Spears emerging afterwards will be normal.

May also be applied 3 weeks after a post harvest disking with a directed spray to avoid fern.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE: 2.0 to 2.75 L in 50 to 200 L of water.

CROP:

Strawberries (Eastern Canada Only)

APPLICATION TIME:

Apply 2-4 weeks after planting but before the runners root in June.

Apply in 100-200 L/ha of water. A low pressure nozzle and coarse spray are recommended to reduce drift.

Do not apply more than one treatment per year.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE: 1.0 L.

CROP:

Strawberries – renovation (Eastern Canada Only)

APPLICATION TIME:

Apply after harvest but before mowing. Delay mowing until 2-3 days after application. Do not apply between mid-August and fall dormancy due to possible damage of flower bud formation. This treatment may cause temporary leaf distortion. Apply in 100-200 L/ha of water.

Do not apply more than one treatment per year.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE: 2.0 L.

CROP:

Raspberries (Eastern Canada Only)

APPLICATION TIME:

Apply at any time except during bloom.

Apply in 100-200 L/ha of water.

Avoid spraying new shoots.

Do not apply more than two broadcast treatments per year.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE: 1.1 L.

Higher rates (up to 2.6 L) may be used for spot treatments.

CROP:

Cranberries

APPLICATION TIME:

Apply as an over the top, wipe-on application to actively growing weeds (June-July). Crop will be injured if contacted.

Apply one application per year and observe a pre-harvest interval of 50 days.

METHOD:

Ground application.

RECOMMENDED RATE: 1 part 2,4-D Amine 500 to 2.0 parts water (33% solution).

WEEDS CONTROLLED: All labelled weeds, plus, Alder, hardhack, St. John's wort and purple aster.

CROP:

Established Pasture and Rangeland (without legumes)

APPLICATION TIME:

Apply at a time of rapid growth, usually May, June and/or September.

Apply only after pasture has been grazed or cut and weed growth has resumed.

Spray thoroughly using 100 to 200 litres of water per hectare.

(Use the higher rate for perennial weeds; a second treatment may be required). Cultivating grain stubble and spraying after regrowth may aid in control.

There is a possibility that plants poisonous to livestock will appear more palatable and could be grazed more readily after 2,4-D treatment (e.g: tansy ragwort, water hemlock, poison hemlock, death camas). Suitable precautions should be taken when such plants are present. Livestock should not be allowed to graze the treated area until poisonous plants have been removed, are dead or have resumed a normal growth habit

Do not apply in freshly seeded grasses and pastures until well established.

Under conditions of good growth and adequate soil moisture, sprays can be applied up to 2 weeks before normal frost time.

Do not apply more than two treatments per year.

METHOD:

Ground or Aerial application.

RECOMMENDED RATE PER HECTARE: 1.7 to 4.5 L.

CROP:

Grass Crops for Forage and Seed Production

APPLICATION TIME:

Seedling Grasses (Stand Establishment) – 3 leaf stage to just before the shot blade stage of development.

Established Grasses – In the spring up to the shot blade stage or in the fall after harvest. For established grasses grown for seed, do not apply during flower development or pollination as seed yields may be reduced.

Do not apply more than two treatments per year.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE:

Seedling Grasses (Stand Establishment) – 0.585-1.1 L of product in 100-200 L water

Established Grasses – 0.7-2.3 L of product in 100-300 L water

Established Grasses (grown for seed) – up to 1.1 L

NON-CROP USES:

Stubble Land, Uncropped Land (i.e., roadsides, rights-of-way for transportation, rights-of-way for utility lines, airports, wastelands and industrial parks)

APPLICATION TIME:

Apply at a time of rapid growth, usually May, June and/or September.

Spray thoroughly using 100 litres or more of water per hectare, if applying by ground.

Use the higher rate for perennial weeds; a second treatment may be required.

Cultivating grain stubble and spraying after regrowth may aid in control.

Under conditions of good growth and adequate soil moisture, sprays can be applied up to 2 weeks before normal frost time.

Do not apply more than two treatments per year.

When using hand-held equipment, do not expose to more than 5.7 L of Nufarm 2,4-D Amine 500 Liquid Herbicide/day/person.

METHOD:

Ground or Aerial application (stubble land and uncropped land).

Ground application (roadsides, airports and industrial parks).

RECOMMENDED RATE PER HECTARE: 1.7 to 4.5 L.

TURF USES:

Lawns and Parks, sod farms, and golf courses (roughs and fairways)
Use adequate buffer zones, as specified, to protect sensitive non-target vegetation.

APPLICATION INFORMATION:

This product is only effective when applied to the leaves of actively growing weeds. This product will not prevent new weeds - apply only when weeds are present.

Apply at a time of rapid growth, usually May, June and/or September, before grasses are in the flag-leaf (shot blade) stage.

If weed populations do not warrant a broadcast application, consider spot treatments that target only weedy areas.

Applications while plants are under stress, such as during hot, cold or drought conditions, will increase risk of damage to turf and can result in reduced weed control.

Avoid mowing for several days before and after treatment.

Use caution when spraying near sensitive desirable vegetation.

Do not use on bentgrass or newly seeded areas.

DO NOT apply to the exposed roots of trees and ornamentals.

Do not apply if rainfall is expected, or irrigating, within 24 hours

DO NOT apply this product directly to freshwater habitats such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands, estuaries or marine habitats.

DO NOT contaminate irrigation/drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Do not allow people (other than the applicator) or pets onto the treatment area during application.

Do not enter treated areas until spray has thoroughly dried.

METHOD:

Ground application only. DO NOT apply by air.

Spray thoroughly using 100 to 200 litres of water per hectare.

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.

MAXIMUM APPLICATION FREQUENCY:

DO NOT apply more than two broadcast applications per year. This does not include spot treatments.

RECOMMENDED RATE PER HECTARE:

Up to 2.25 L at each application.

Up to 4.5 L per year, total.

WOODY GROWTH (non-grazing):

Apply at time of rapid growth (usually May, June and/or September).

Apply 2.2-9.5 litres of product per hectare in 100 or more litres of water (when applying to brush species, 1000-3000 L/ha of spray solution may be required). Use the lower rate for species that are more susceptible such as western snowberry, willow and poplars. Spray brush species up to 3 metres tall after foliage is well developed. Brush or trees above 3 metres tall should be cut close to the ground and sprayed when the regrowth is over 0.6 m tall.

Applications soon after leaves are fully open usually give the best results.

Apply sufficient spray volume to thoroughly wet all plant parts to the ground line.

With good growing conditions and adequate soil moisture, sprays may be applied up to 2 to 3 weeks before normal frost time.

To reduce potential drift hazard on non-crop locations LO-DRIFT® may be added. Follow all directions on the LO-DRIFT label for the correct mixing sequence.

Do not apply more than two treatments per year.

When using hand-held equipment, do not expose to more than 10.6 L of Nufarm 2,4-D Amine 500 Liquid Herbicide /day/person without a respirator or 17 L of Nufarm 2,4-D Amine 500 Liquid Herbicide/day/person with a respirator.

WEEDS CONTROLLED:

Susceptible Weeds:

Annual sow thistle, bluebur, burdock (before the 4-leaf stage), cocklebur, common plantain, daisy fleabane, false flax, flixweed, goat's beard, kochia, lamb's-quarters, mustards (except dog and tansy), narrow-leaved hawk's beard (susceptible in the fall and at 1-2 leaf in the spring), prickly lettuce, ragweeds, redroot pigweed, Russian pigweed, Russian thistle, shepherd's purse, stinging nettle, stinkweed, sweet clover, thyme-leaved spurge, volunteer canola, wild radish, wild sunflower.

Rates for Susceptible Weeds:

Easy-to-control weeds in the seedling stage (2 to 4 leaf) and growing rapidly. Use 0.7 to 1.1 litres per hectare. Use the higher rate for larger weeds, dry or cold weather, or heavy infestations.

Less Susceptible Weeds:

Will control weeds listed under susceptible plus common chickweed, common purslane, curled dock (before the 4-leaf stage), dandelion (in lawn), dog mustard, flixweed (spring, prior to bolting), oakleaf goosefoot, groundsel, hairy galinsoga, common hawkweed, heal-all, knotweed (before the 4-leaf stage), narrow-leaved hawk's beard (spring, prior to bolting), peppergrass, pineappleweed, prostrate pigweed, Russian knapweed, sheep sorrel, smartweed (Pennsylvania and Green), tansy mustard, tumble pigweed, velvetleaf, yellow rocket (before the 4-leaf stage).

Rates for Less Susceptible Weeds:

Harder-to-control weeds in the seedling stage (2 to 4 leaf) and growing rapidly. Use 1.25 to 1.75 litres per hectare. Use the higher rate for larger weeds, dry or cold weather, or heavy infestations.

Top Growth Control Only:

Biennial wormwood, blue lettuce, bull thistle, burdock, buttercup, Canada thistle, dandelion, field bindweed, gumweed, hedge bindweed, hoary cress, leafy spurge, mouse-eared chickweed, perennial sow-thistle, tartary buckwheat, teasel, wild buckwheat, yellow rocket.

Rates for Top Growth Control Only:

Use 1.25 to 1.75 litres per hectare.

USE PRECAUTIONS FOR AERIAL APPLICATION (to cereal crops, pasture, rangeland, stubble and non-crop land only)**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 National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

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 has communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls over long-sleeved shirt, long pants 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 at 1 800 868-5444 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.

- Exercise special care: Use sufficient water for even distribution.
- Use a 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 other desirable broadleaf plants or non-target species and do not permit spray mists to drift onto them.
- Do not use human flaggers
- Buffer zones: Appropriate buffer zone should be established between treatment areas and aquatic systems, and treatment areas and significant wildlife habitat.
- Do not spray in winds exceeding 8 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.
- 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.
- Coarse sprays are less likely to drift, therefore, use only nozzles or nozzle configurations 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.

- **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 TO PROTECT SENSITIVE TERRESTRIAL AND AQUATIC HABITATS:

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

For application to rights-of-way, buffer zones for protection of sensitive terrestrial habitats are not required; however, the best available application strategies that minimize off-site drift, including meteorological conditions (e.g. wind direction, low wind speed) and spray equipment (e.g. coarse droplet sizes, minimizing height above canopy), should be used. Applicators must, however, observe the specified buffer zones for protection of sensitive aquatic habitats.

The buffer zones specified in the tables 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.

Seasonal water bodies require buffer zones if there is water in them during application. Water bodies which do not fill on an annual basis need not be buffered.

Method of Application	Crop	Buffer Zones (metres) Required for the Protection of:				
		Freshwater Habitat of Depths		Estuarine/Marine Habitats of Depths		Terrestrial Habitat
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer*	Golf courses, turf	1	0	1	0	1
	Field crops (cereal grains, corn, asparagus, strawberries, raspberries)	1	0	1	0	1
	Grasslands, fallowland and crop stubble, pastures, rangeland, non-cropland (including rights-of-way** and brush control)	1	0	1	0	2

Aerial	Field crops (cereal grains)		Fixed wing	1	0	1	0	45
			Rotary wing	1	0	1	0	40
	Pastures, rangelands and crop stubble		Fixed wing	1	0	1	0	60
			Rotary wing	1	0	1	0	50
	Non-cropland (including rights-of-way** and wastelands)	4.8 L/ha	Fixed wing	1	0	1	0	150**
			Rotary wing	1	0	1	0	80**
		9.5 L/ha	Fixed wing	2	0	2	0	225**
			Rotary wing	1	0	1	0	100**

*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 labelled 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 labelled buffer zone can be reduced by 30%. ** For application to rights-of-way, buffer zones for protection of sensitive terrestrial habitats are not required.

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.

CLEANING OF SPRAYER:

Thoroughly clean the herbicide sprayer before applying any other chemical on crops that may be damaged (see USE PRECAUTIONS). Wash the outside of the sprayer and drain the tank completely. Remove and clean filters, screens and nozzle tips separately. Fill the sprayer tank with clean water. With the agitator running flush out the lines and boom, then drain. Fill the sprayer with clean water and for each 100L add 1 L household ammonia. Operate the pump and agitator for 15 minutes. If possible, let the solution remain in the tank and hoses overnight; recirculate and flush out the lines and boom, then drain. Rinse out twice with clean water, recirculating and draining each time. DO NOT contaminate irrigation or drinking water when cleaning the sprayer.