



Milestone* Herbicide

GROUP	4	HERBICIDE
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- For control of broadleaf weeds and woody plants in rangeland, permanent pasture, industrial and other non-crop areas of Canada

COMMERCIAL

READ THE LABEL AND BOOKLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN

GUARANTEE: Aminopyralid, present as triisopropanolamine salt 240 g/L
Solution

REGISTRATION NO. 28517 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 1 L, 2.36 L, 3 L, 5 L, 10 L, 110 L, Bulk

Dow AgroSciences Canada Inc.

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Calgary, Alberta

T2P 5H1

1-800-667-3852

***Trademark of Dow AgroSciences LLC**

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

PERSONAL PROTECTIVE EQUIPMENT

Applicators must wear coveralls and chemical resistant gloves.

Mixers and Loaders handling concentrated product, as an extra precaution, should wear coveralls, chemical resistant gloves, goggles, and rubber boots.

Worker reentry – Do not enter or allow worker entry to treated area for 12 hours following application.

SPRAY DRIFT PRECAUTIONS

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings.

OPERATOR USE PRECAUTIONS

- Wash hands before eating, drinking, using tobacco or using the washroom.
- If herbicide penetrates clothing, remove immediately; then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. 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.

FIRST AID

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

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 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.

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.

TOXICOLOGICAL INFORMATION

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

ENVIRONMENTAL HAZARDS

TOXIC to terrestrial and aquatic plants. Observe terrestrial and aquatic buffer zones specified under DIRECTIONS FOR USE.

STORAGE

Do not ship or store with food, feeds, drugs or clothing.

DISPOSAL

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.

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 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.

GENERAL INFORMATION

Milestone Herbicide, applied as a post emergent, controls broadleaf weeds and woody plants in rangeland, permanent pasture, industrial and other non-crop areas. Applications should be avoided under conditions of drought or other environmental stresses. **Read all precaution statements before using this product.** For more information, contact your local Dow AgroSciences Canada Inc. representative.

For best results, apply Milestone Herbicide to young weeds that are actively growing at time of application.

GENERAL USE PRECAUTIONS

Milestone Herbicide is highly active against broadleaf plants. This product is recommended for use on areas where loss of broadleaf forage plants, including legumes, can be tolerated.

Do not apply more than 0.50 L (120 g ai) per hectare of Milestone Herbicide per annual growing season in rangeland, permanent pasture, industrial, and other non-crop areas.

Only one application per growing season is permitted.

Milestone Herbicide cannot be applied on domestic or commercial turf grass.

Tank Mixtures

Do not mix or apply this product with any other additive, pesticide or fertilizer except as specifically recommended on this label.

DIRECTIONS FOR USE

READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING. FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC WEED CONTROL.

DO NOT apply this product directly to fresh water habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuaries or marine habitats. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

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 or fine textured such as clay). To reduce leaching and runoff, 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 vegetative strip between the treated area and the edge of the water body. The use of this product 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.

RANGELAND, PERMANENT PASTURE, INDUSTRIAL AND OTHER NON-CROP AREAS OF CANADA

MILESTONE HERBICIDE ALONE

Apply Milestone Herbicide at a rate of 0.25 – 0.50 L/ha. Apply when weeds are small and actively growing. Apply using aerial equipment (minimum of 19 L spray volume/ha) or ground equipment (minimum of 100 L spray volume/ha) that will assure uniform coverage.

Weeds Controlled or Suppressed by Milestone Herbicide Alone

Rate of Milestone Herbicide	Weeds controlled	Weeds suppressed
0.25 L/ha 60 g a.i./ha		Canada thistle spotted knapweed
0.29 L/ha 70 g a.i./ha	common ragweed yellow star thistle ¹ plumeless thistle musk or nodding thistle Canada fleabane Horsenettle perennial sowthistle oxeye daisy ² tall buttercup Canada thistle spotted knapweed	western ragweed curly dock Canada goldenrod scentless chamomile
0.38 L/ha 90 g a.i./ha	Weeds listed above plus: cudweed curly dock western ragweed scentless chamomile	absinth (wormwood)
0.50 L/ha 120 g a.i./ha	Weeds listed above plus: absinth (wormwood) prickly lettuce	common yarrow common tansy diffuse knapweed ³ dandelion

¹Yellow star thistle: Apply to plants at the rosette through bolting growth stage

²Oxeye daisy: Apply to plants in the pre-bud stages of development

³Diffuse knapweed: Apply to plants in the bolting stage of development

TANK-MIX COMBINATIONS WITH MILESTONE HERBICIDE

Milestone Herbicide can be tank mixed with 2,4-D Amine herbicide to broaden the spectrum of weeds controlled. When a tank mixture is used, follow all precautions, directions for use, and limitations on the tank-mix partner label.

Tank-Mix Combination - Milestone Herbicide plus 2,4-D Amine which delivers 840 – 1440 grams acid equivalent per hectare

Herbicide Component	Rate	Weeds Controlled
Milestone Herbicide	0.29 L/ha (70 g ai/ha)	Control of annual sow thistle, bluebur, burdock (<4 leaf), cocklebur, common plantain, flixweed, goat's beard, prickly lettuce, ragweeds, stinging nettle, sweet clover, curled dock (<4 leaf), hawkweed, peppergrass, season long control of Canada thistle, spotted knapweed, scentless chamomile, Canada goldenrod, and top growth control of blue lettuce, bull thistle, buttercup, gumweed, hoary cress, perennial sow thistle
2,4-D Amine	840 g ae/ha	

Herbicide Component	Rate	Weeds Controlled
Milestone Herbicide	0.38 L/ha (90 g ai/ha)	all weeds listed above plus season long control of absinth wormwood, dandelion
2,4-D Amine	1080 g ae/ha	

Herbicide Component	Rate	Weeds Controlled
Milestone Herbicide	0.50 L/ha (120 g ai/ha)	all weeds listed above plus season long control of western snowberry, common tansy
2,4-D Amine	1440 g ae/ha	

Preharvest/Grazing Intervals

- There is no restriction on livestock or lactating dairy animals grazing in treated areas.
- Allow 3 days of grazing on an untreated pasture (or feed untreated hay) before transferring livestock to areas where sensitive broadleaf crops may be grown.

MIXING METHODS

Mixing with Water

To prepare the spray mix, add half the desired amount of water in the spray tank. Then with agitation, add the recommended amount of Milestone Herbicide and then the 2,4-D Amine. Finally, with continued agitation, add the rest of the water.

APPLICATION METHODS

Individual Plant or Spot/Strip Applications

Use the following mixing chart to mix Milestone Herbicide with enough water to make the correct amount of spray solution. Use equipment designed for individual plant or spot/strip application, such as a backpack sprayer or hose and handgun, to spray weeds. Thoroughly and uniformly wet the foliage of all target plants but not to the point of runoff. Direct spray away from aquatic habitats and non-target terrestrial plants. DO NOT apply this product directly to fresh water habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuaries or marine habitats.

Mixing Chart

Milestone Herbicide	Spray Solution (water and herbicide)
2.2 mL – 5 mL	1 litre
22 mL – 50 mL	100 litres
220 mL – 500 mL	1000 litres

Use the higher rate in the rate range when growing conditions are less than favourable or when the plant foliage is tall and dense.

Broadcast Treatment (Ground and Aerial Applications)

Applications of Milestone Herbicide may be made once grasses are well-established (have developed a good secondary root system and show good vigor).

(1) Ground Application

Using ground equipment, apply Milestone Herbicide as a broadcast treatment to control listed broadleaf weeds and woody plants. Apply Milestone Herbicide at the recommended rates in a minimum spray volume of 100 L/ha.

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 ASAE coarse classification.

Ground Application – Buffer Zones Requirements

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

For application to rights-of-way, buffer zones for protection of sensitive terrestrial habitats are not required. However, the best available application strategies which 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.

Method of Application	Crop	Downwind buffer zone (metres) required for the protection of non-target terrestrial and aquatic habitat
Field sprayer [†]	Rangeland, permanent pasture, industrial and other non-crop areas	10

[†] For field sprayers, buffer zones can be reduced by 70% when using shrouds or 30% when using cones.

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.

(2) Aerial Application

Use Milestone Herbicide or the Milestone Herbicide + 2,4-D tank-mix as a broadcast treatment by air to control listed broadleaf weeds and woody plants. Apply Milestone Herbicide at the recommended rates in a minimum spray volume of 19 L/ha by air. Refer to the tank-mix partner label for additional instructions and precautions.

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 swath marking devices.

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.

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 at 1-800-667-3852 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:

- Avoid spray drift at the application site. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions.
- The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:
 1. The distance of the outer most operating nozzles on the boom must not exceed 75% of the length of the wingspan or rotor.
 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Aerial Application – Buffer Zones Requirements

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 ASAE coarse classification.

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

For application to rights-of-way, buffer zones for protection of sensitive terrestrial habitats are not required. However, the best available application strategies which 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.

Spray Quality	Buffer zone (m) required for the protection of non-target terrestrial and aquatic habitat:	
	Aircraft Type	
	Fixed-Wing Aircraft	Rotary-Wing Aircraft
ASAE Coarse (VMD = 385.22 µm)	175	150
ASAE Coarse - Very Coarse (VMD = 439.39 µm)	125	100
ASAE Very Coarse (VMD = 477.94 µm)	100	90
ASAE Very Coarse- Extremely Coarse (VMD = 521.38 µm)	80	70

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.

SPRAYER CLEAN-OUT INSTRUCTIONS

Do not use spray equipment used to apply Milestone Herbicide for other applications to land planted to, or to be planted to susceptible crops or desirable sensitive plants, unless it has been determined that all residue of this herbicide has been removed by thorough cleaning of equipment.

Equipment used to apply Milestone Herbicide should be thoroughly cleaned before reusing to apply any other chemicals.

1. Rinse and flush application equipment thoroughly after use. Dispose of rinse water in non-cropland area away from water supplies.
2. Rinse a second time, adding 1 litre of household ammonia or tank cleaning agent for every 1000 L of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Nozzles and screens should be removed and cleaned separately.

SPECIAL USE: INVASIVE PLANT MANAGEMENT

Invasive Plant Management Practices

Milestone Herbicide can be applied postemergence as a broadcast spray or as a spot/strip application to control invasive plants. Post emergence applications should be made before bud stage or early flowering, unless otherwise specified. Best results are obtained when the spray volume is sufficient to provide uniform coverage of treated plants. For optimum uptake and translocation of the herbicide, avoid mowing, haying, shredding or disturbing treated areas for at least 7 days following application.

Milestone Herbicide can be an important component of integrated vegetation management programs designed to restore desired plant communities. To maximize and extend the benefits of weed control provided by Milestone Herbicide, it is important that other vegetation management practices, including proper grazing management, fertilization, prescribed fire, mechanical mowing, hand-pulling, biocontrol and other methods, be used in appropriate sequences and combinations to further alleviate the adverse effects of invasive plants on desirable plant species and to promote development of desired plant communities. Consult local agriculture and land management resource specialists and/or invasive plant councils. These organizations can provide guidance on best management practices and the development of integrated vegetation management programs. Rapid response to the early detection of new invasive plants is a key invasive plant management strategy. Containment, eradication and control are essential for the management of spreading and established invasive plants.

DIRECTIONS FOR USE*

Rangeland, pasture, industrial and other non-crop areas

Make only one application per year for control of the following invasive plants. For best results, invasive plants should be treated when they are actively growing and under conditions favourable for growth. Milestone Herbicide also provides preemergence control of germinating seeds and control of emerged seedlings of susceptible plants following application.

Invasive Plants Controlled

Rate of Milestone Herbicide	Common Name	Scientific Name	Life Cycle	Plant Family
Weeds Controlled				
0.29 L/ha 70 g a.i./ha	common broomweed	<i>Amphiachryis dracunculoides</i>	annual	<i>Asteraceae</i>
	hairy buttercup	<i>Ranunculus sardous</i>	annual	<i>Ranunculaceae</i>
	tropic croton	<i>Croton glandulosus</i>	annual	<i>Euphorbaceae</i>
	tropical soda apple ¹	<i>Solanum viarum</i>	perennial	<i>Solanaceae</i>
	bull thistle	<i>Cirsium vulgare</i>	biennial	<i>Asteraceae</i>
Weeds Suppressed				
	sulphur cinquefoil ²	<i>Potentilla recta</i>	perennial	<i>Rosaceae</i>
Weeds Controlled				
0.38 L/ha 90 g a.i./ha	bitter sneezeweed	<i>Helenium amarum</i>	annual	<i>Asteraceae</i>
	hairy fleabane	<i>Conyza bonariensis</i>	annual	<i>Asteraceae</i>
	tansy ragwort	<i>Senecio jacobeeae</i>	biennial	<i>Asteraceae</i>
Weeds Controlled				
0.50 L/ha 120 g a.i./ha	tall ironweed	<i>Vernonia gigantean</i>	perennial	<i>Asteraceae</i>
	Fuller's teasel	<i>Dipsacus sativus</i>	biennial	<i>Dipsacaceae</i>
	Weeds Suppressed			
	Russian knapweed ³	<i>Acroptilon repens</i>	perennial	<i>Asteraceae</i>

¹Tropical soda apple: apply to any growth stage but application by flowering will reduce seed production potential.

²Sulfur cinquefoil: apply to plants in the prebud stage of development.

³Russian knapweed: apply to plants in the spring and summer that are in the bud to flowering

*To reduce the spread of invasive plants, it is important to treat identified invasive plants in the target area while observing required buffer zones for broadcast applications. Return, when the wind is blowing from the opposite direction, to complete spraying the targeted plant population.

Individual Plant or Spot/strip Applications

An important component of Invasive Plant Management programs is early detection and eradication. The instructions for individual plant or spot or strip applications can be used to stop the spread of invasive plants. Use the following mixing chart to mix Milestone Herbicide with enough water to make the correct amount of spray solution. Use equipment designed for individual plant or spot/strip application, such as a backpack sprayer or hose and handgun, to spray susceptible invasive plants. Thoroughly and uniformly wet the foliage of all target plants but not to the point of runoff. Direct spray away from aquatic habitats and non-target terrestrial plants. DO NOT apply this product directly to fresh water habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuaries or marine habitats.

Mixing Chart

Milestone Herbicide	Spray Solution (water and herbicide)
2.2 mL – 5 mL	1 litre
22 mL – 50 mL	100 litres
220 mL – 500 mL	1000 litres

Use the higher rate in the rate range when growing conditions are less than favourable or when the plant foliage is tall and dense.

Refer to the main Milestone Herbicide label for additional details and instructions, including preharvest/grazing intervals, before using.

READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING. FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC WEED CONTROL.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, Milestone Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Milestone Herbicide or other Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same area. 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 Milestone Herbicide or other Group 4 herbicides with different herbicide groups that control the same weeds in a given treatment area.
- 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, cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- 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 Dow AgroSciences Canada Inc. at 1-800-667-3852 or at www.dowagro.ca.

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.

101309

Label code: CN-28517-002-E

Replaces: CN-28517-001-E

Specimen Label Notes:

- An Invasive Plant Management special use section added to label
- Weeds added to Weeds Controlled or Suppressed by Milestone Alone
- Clarification of existing application instructions for Individual plant or Spot/Strip Applications