



Tordon* 101

Herbicide

GROUP	4	HERBICIDE
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- Contains Picloram and 2,4-D
- Tordon 101 Herbicide is recommended for use on rights-of-way to control unwanted brush and broadleaved weeds.

COMMERCIAL

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

GUARANTEE: picloram 65 g/L
2,4-D (isomer specific) 240 g/L
(both present as triisopropanolamine salt)

REGISTRATION NO. 9007 PEST CONTROL PRODUCTS ACT

CAUTION  **POISON**

MAY CAUSE SKIN AND EYE IRRITATION
HARMFUL IF SWALLOWED
MAY BE HARMFUL IF ABSORBED THROUGH SKIN
DO NOT GET IN EYES
AVOID CONTACT WITH EYES, SKIN AND CLOTHING
AVOID BREATHING SPRAY MIST
DO NOT INHALE FUMES

NET CONTENTS: 10 L, 20 L, 110 L

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PRECAUTIONS

- KEEP OUT OF REACH OF CHILDREN**
- MAY CAUSE SKIN AND EYE IRRITATION**
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- DO NOT INHALE FUMES**

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.

MIXING

Mechanical Transfer System

10 & 20 L containers: Manufacturers are required to incorporate a built-in plastic spout on the containers, to minimize spillage and exposure.

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

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.

PHYSICAL OR CHEMICAL HAZARDS

COMBUSTIBLE. Keep away from heat and open flame. Do not cut or weld container.

FIRST AID

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

If swallowed: Do not induce vomiting unless instructed to do so by qualified medical personnel. If conscious, give individual two glasses of water to drink and consult a physician or contact a poison control centre **IMMEDIATELY**. Do not give anything by mouth to an unconscious person.

If in eyes: Flush with flowing water **IMMEDIATELY** and continuously for 15 minutes. Get medical attention or contact a poison control centre **IMMEDIATELY**.

If on skin: Wash off with plenty of soap and water. Get medical attention or contact a poison control centre **IMMEDIATELY** if irritation persists.

If inhaled: Remove individual to fresh air. Consult a physician or contact a poison control centre **IMMEDIATELY** if effects occur.

TOXICOLOGICAL INFORMATION

If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Employ supportive care. Treatment should be based on judgment of the physician in response to reactions of the patient.

AGRICULTURAL CHEMICAL

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

ENVIRONMENTAL HAZARDS

Do not apply directly to any body of water. Do not contaminate water used for irrigation or domestic purposes by cleaning of equipment or disposal of wastes. Do not allow run-off or spray to contaminate wells, irrigation ditches or any body of water used for irrigation or domestic purposes. See GENERAL USE PRECAUTIONS section.

STORAGE

Do not store Tordon 101 Herbicide near food, feedstuffs, fertilizers, seeds, insecticides, fungicides or other pesticides or herbicides intended to be used on picloram sensitive crops.

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

Many methods of application are possible. The method chosen should be appropriate to the environmental, vegetative and other site conditions. **Read all precaution statements before using this product.** For more information or help, contact your local Dow AgroSciences representative.

GENERAL USE PRECAUTIONS

Certain environmental conditions may increase the potential for herbicides to move in water, through the soil and enter an underlying aquifer¹. These environmental conditions include:

- Soils that are very permeable (textures of sandy loam to sand) throughout the entire profile and which also have an underlying shallow aquifer.
- Soils containing sinkholes over limestone bedrock.
- Surfaces composed of severely fractured rock or unconsolidated gravels and underlaid with an aquifer.

The above conditions may permit direct movement of herbicides, including those containing picloram, to underlying aquifers.

Where any of the above environmental conditions exist, users are advised not to use either directed or broadcast foliage or aerial foliar application methods. Alternative cut surface methods of application should be chosen. These methods include tree injection, frill or girdle and cut stump treatments.

To help identify areas of concern, a Dow AgroSciences representative can be contacted for additional information and assistance towards doing site inspections.

Sensitive Plants

Most broadleaved plants are very sensitive to picloram. Care should be taken to avoid spraying desirable broadleaved plants during both growing and dormant periods. Tordon 101 Herbicide, without a drift control additive or approved application system, should not be applied to the foliage of target vegetation near areas planted to crops such as beans (including soybeans), potatoes, tobacco, grapes, tomatoes, flowers, ornamental shrubs and trees or other desirable broadleaved crops. In addition, care should be taken to avoid contaminating soil in which sensitive crops will be grown. Clippings from vegetation which has been treated with Tordon 101 Herbicide should not be used for composting or mulching, nor should the manure from animals grazing treated areas be used around susceptible plants, because picloram residues pass through the animal unchanged and are still herbicidally active.

PREHARVEST/GRAZING INTERVALS

When a right-of-way is to be grazed by animals do not apply Tordon 101 Herbicide at rates exceeding 18 L/ha and follow the following grazing withholds:

- Do not allow lactating dairy animals to graze the treated areas 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.

GROUND APPLICATION

Directions for Use

Directed Leaf-Stem Applications With Single Nozzle Application Equipment

For control of woody plants, use 10 L of Tordon 101 Herbicide in 1000 L of water and apply to woody plants after the foliage is fully developed. The spray solution should thoroughly wet all plant parts including foliage and stems and should be applied when plants are actively growing to achieve the maximum control. Application made when the foliage has lost its normal green colour and vigour may not give satisfactory results.

Control of black spruce will be improved by using a tank mix of Tordon 101 Herbicide at 8.5 to 10.0 L of product with sodium TCA at 12.5 to 17.5 kg active ingredient per 1000 L of spray solution. Soluble granular formulations of sodium TCA should be added slowly, with mechanical or hydraulic agitation, to the Tordon 101 Herbicide and water in the tank to ensure thorough mixing. Apply the spray solution to thoroughly wet all plant parts. Use the higher rate of sodium TCA later in the season after the terminal buds on black spruce have set or "hardened-off" (buds are firm and sharp to touch) and the current year's growth has darkened in colour.

For faster burndown of coniferous species use Sylgard² 309 Silicone Surfactant at the rate of 0.25% by volume (250 mL per 100 L of water). If maximum rainfastness is desired increase the rate to 0.375% (375 mL per 100 L of water). Sylgard 309 should be added after the herbicide is thoroughly mixed. Agitate to thoroughly mix the water, Sylgard 309 and Tordon 101 Herbicide. Apply soon after mixing. Do not prolong application for longer than 24 hours after mixing.

When applying Tordon 101 Herbicide with ground application equipment, the spray pressure at the nozzle should be no higher than is required for penetration of the target vegetation. The spray should always be directed toward the target, away from non-target, susceptible plants and no higher than the tops of the

target plants. To aid in reducing spray drift, a nozzle and pressure should be selected which produces coarse spray droplets and minimizes production of fine droplets. Do not use high spray pressures in order to reach distant vegetation.

Broadcast Foliage Application

Woody Plant Control: Apply 18 to 25 L/ha of Tordon 101 Herbicide in 200 L of total spray to control brush such as alder, birch, cedar, maple, pine, poplar, spruce and other species.

For faster burndown of coniferous species use Sylgard 309 Silicone Surfactant at the rate of 0.25% by volume (250 mL per 100 L of water). If maximum rainfastness is desired increase the rate to 0.375% (375 mL per 100 L of water). Sylgard 309 should be added last after the herbicide is thoroughly mixed. Agitate to thoroughly mix the water, Sylgard 309 and Tordon 101 Herbicide. Apply soon after mixing. Do not prolong application for longer than 24 hours after mixing.

Broadleaved Weed Control: Apply 3.7 L/ha of Tordon 101 Herbicide to control Canada thistle, dandelion and common yarrow. Apply 7 L/ha of Tordon 101 Herbicide in 200 L of total spray volume to control broadleaved weeds such as sweet and red clover, wild carrot, common ragweed, goldenrod, dock, plantain, prickly lettuce, burdock, fleabane and vetch. Apply in the spring or early summer after growth appears.

For **broadcast** foliar applications, USE AN APPROVED DRIFT CONTROL ADDITIVE OR SYSTEM. Spray drift could cause injury to trees and other desirable broadleaved plants outside the desired treatment area and may render soil unproductive for broadleaved plants.

With ground broadcast methods of application, use no more than 207 kPa as the spraying pressure, and nozzle tips that produce large droplets.

Cut Surface Methods

To control certain unwanted trees such as elm, oak, maple, hickory, beech, cherry and basswood, and conifers such as pine, cedar, hemlock, Douglas fir and Sitka spruce, apply Tordon 101 Herbicide diluted in a 1:1 ratio with water or with ethylene glycol, to depress the freezing point as directed below.

Use Precautions: When mixing Tordon 101 Herbicide with either water or ethylene glycol, take special precautions not to spill this mixture onto the soil. When applying the 1:1 dilution, direct the herbicide mixture only to the cut surface area to be treated. Do not use excessive amounts of herbicide solution which would result in run-off from the cambial region onto the soil surface.

Tree Injection Treatment: Inject 1 millilitre of the dilute solution through the bark at intervals of 75 mm between edges of the injector wound. The injections should be made completely around the tree at any convenient height with appropriate equipment.

Frill or Girdle Treatment: (Hack and Squirt) Make a single girdle or series of overlapping cuts (frills) through the bark completely around the tree at a convenient height. Thoroughly wet the cut surface with the 1:1 diluted solution applied with a squeeze bottle or similar equipment.

Cut Stump Treatment: Paint or spray the 1:1 diluted solution onto the exposed freshly cut stump. Care should be taken to ensure that the entire circumference or cambial layer of the outside of the stump is treated.

All of the above cut surface methods may be used successfully at any season except during periods of heavy sap flow of certain species such as red maple. For this species, injections or wounds should overlap, and applications should be timed to avoid sap flow periods.

BROADCAST AERIAL APPLICATION

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 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:

Volume: To control unwanted brush on rights-of-way, apply 25 to 35 L of Tordon 101 Herbicide per hectare in a total spray volume of 150 to 200 L/ha. For aerial application to other industrial sites such as military training areas, lower delivery volumes can be considered, depending on brush species, height and

density. Sprays should be applied following full leaf development and during periods of active growth for best results. Late summer application or application during dry weather when the plants are not actively growing may result in unsatisfactory control.

For faster burndown of coniferous species use Sylgard 309 Silicone Surfactant at the rate of 0.25% by volume (250 mL per 100 L of water). If maximum rainfastness is desired increase the rate to 0.375% (375 mL per 100 L of water). Sylgard 309 should be added last after the herbicide is thoroughly mixed. Agitate to thoroughly mix the water, Sylgard 309 and Tordon 101 Herbicide. Apply soon after mixing. Do not prolong application for longer than 24 hours after mixing.

Apply Tordon 101 Herbicide at the 25 L/ha rate to control highly susceptible brush species such as willow, locust, sumac, poplar, aspen and cherry growing on sandy or sandy loam soil.

Apply Tordon 101 Herbicide at the 35 L/ha rate to more-difficult-to-control brush species such as maple, pine, spruce, red cedar, oak and where brush is growing on heavy clay soils.

- USE AN APPROVED DRIFT CONTROL ADDITIVE OR SYSTEM. Spray drift could cause injury to trees and other desirable broadleaved plants outside the desired treatment area and may render soil unproductive for broadleaved plants.
- Avoid direct applications to any body of water. Do not contaminate water through spray drift or by cleaning of equipment or disposal of wastes.
- With the aerial broadcast method of application, a minimum volume of 150 L/ha should be used and no more than 207 kPa as the spraying pressure. 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 broadleaved 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.
- To prevent contamination of adjacent surface water including lakes, ponds and streams, strict adherence to provincial setbacks from water is essential.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, Tordon 101 Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Tordon 101 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 Tordon 101 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 Dow AgroSciences Canada Inc. at 1-800-667-3852 or at www.dowagro.ca.

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

¹An aquifer is "an underground, saturated, permeable, geologic formation capable of producing significant quantities of water to a well or spring. It is the ability of the saturated zone, or portion of that zone, to yield water which makes it an aquifer" (American Chemical Society, 1983).

²Sylgard is a trademark of Dow Corning.

021506

Label Code: CN-9007-003-E

Replaces: CN-9007-002-E

Specimen Label notes

- Resistance Management text added to label
- Dow AgroSciences Canada Inc. address change