


(Container)

 **Dow AgroSciences**
Tordon™ 22K
Herbicide

Solution

GROUP	4	HERBICIDE
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- For the control of deep-rooted perennial and biennial weeds on rangeland, permanent grass pastures and non-cropland in Western Canada.

COMMERCIAL

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

GUARANTEE: picloram 240 g/L
(formulated as potassium salt)

REGISTRATION NO. 9005 PEST CONTROL PRODUCTS ACT

CAUTION  **POISON**

DANGER: EYE IRRITANT
MAY CAUSE SKIN IRRITATION
POTENTIAL DERMAL SENSITIZER

NET CONTENTS: 3.6 L

Dow AgroSciences Canada Inc.
Suite 2100, 450 - 1 Street S.W.
Calgary, Alberta
T2P 5H1
1-800-667-3852

™Trademark of Dow AgroSciences LLC

PRECAUTIONS
DANGER - EYE IRRITANT
MAY CAUSE SKIN IRRITATION
DO NOT APPLY BY AIR

Do not get in eyes, on skin or on clothing. Avoid breathing spray mist. Keep container closed when not in use. When handling concentrate wear safety glasses and impervious gloves. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes.

Wear a long-sleeved shirt, long pants, shoes plus socks, and chemical-resistant gloves during mixing, loading, application, repair and clean-up activities.

Do not apply this product in a way that this product will contact workers or other persons, either directly or through drift. Only handlers (mixers, loaders and applicators) wearing personal protective equipment may be in the area being treated during application. See **DIRECTIONS FOR USE** for crop specific REIs.

Prolonged or frequently repeated contact may cause allergic reactions in some individuals.

For pastures and rangelands: 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.

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 web site at www.croplife.ca.

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

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

- This product is moderately toxic to fish. Do not apply to any water bodies or in areas where the runoff from treated areas will reach fish-bearing waters. Do not contaminate water through spray drift, by cleaning of equipment or disposal of wastes.
- Tordon 22K may cause damage to sensitive non-target vegetation. Do not apply to irrigation ditches that contain or may contain water to be used for irrigation or domestic purposes.

- Do not apply to soils that are very permeable (textures of sandy loam to sand) throughout the entire profile and which also have an underlying shallow aquifer.
- Do not apply to soils containing sinkholes over limestone bedrock.
- Do not apply to soils whose surfaces are composed of severely fractured rock or unconsolidated gravel and underlaid with an aquifer.
- TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.
- Picloram is persistent and will carryover. It is recommended that any products containing picloram not be used in areas treated with this product during the previous season.
- 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.
- To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.
- Avoid application 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.

STORAGE

Do not store near food, foodstuffs, fertilizers, seeds, insecticides, fungicides or other pesticides.

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 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)

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- Do not apply to soils whose surfaces are composed of severely fractured rock or unconsolidated gravel and underlaid with an aquifer.
- TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.
- Picloram is persistent and will carryover. It is recommended that any products containing picloram not be used in areas treated with this product during the previous season.
- 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.
- To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.
- Avoid application when heavy rain is forecast.
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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.

DIRECTIONS FOR USE

Use Tordon 22K herbicide to control patches of biennial and deep-rooted perennial weeds including Canada thistle, perennial sow-thistle, field bindweed, toadflax, pasture sage and scentless chamomile on rangeland, permanent grass pastures and on non-cropland areas such as around farm buildings, fencerows, roadsides and other rights-of-way including electrical transmission and distribution lines, railroads and pipelines in Western Canada. Tordon 22K is highly active, water-soluble and can be persistent under certain environmental conditions (see section entitled ENVIRONMENTAL HAZARDS). For further information to help prevent damage to desirable crops and plants, consult your District Agriculturalist or nearest weed specialist for local recommendations and guidance.

USE PRECAUTIONS

DO NOT APPLY BY AIR

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.

Do not allow spray drift. Herbicides containing picloram are highly active. Tiny amounts may cause damage to plants if applied during either growing or dormant periods. Use only low pressure sprays (150 to 350 kPa) or other equipment designed to minimize the danger of spray drifting onto desirable plants such as vegetables, flowers, grapes, fruit trees, ornamentals, tomatoes, potatoes, beans of all types including soybeans and other broadleaved plants. Keep away from trees and shrubs as their roots may extend well beyond their limbs and branches. Apply Tordon 22K only when there is little movement of air and use coarse sprays to minimize drift. Do not apply by air as this increases drift hazard.

Do not apply Tordon 22K to irrigated land or land to be irrigated.

Do not contaminate water. Do not treat the banks of irrigation or drainage ditches and avoid spray drift falling into them to avoid contaminating water used for irrigation. Dike around and avoid irrigation through treated areas. Water used for drinking, irrigation and other domestic purposes must not be contaminated.

Do not move treated soil. Soil from treated areas must not be moved with land levelers, harvesting and cultivation equipment or by any other means into land in crop.

Tordon 22K is not to be used for domestic purposes or for use by Commercial Pesticide Applicators in residentially zoned areas.

For use on industrial/commercial zoned areas, including rights-of-way that traverse urban areas. Contact appropriate provincial regulatory authorities before use to determine if buffer zones/setback distances are required to be maintained between the treated area (right-of-way) and the residential area.

Do not treat areas intended to be used for cultivated sensitive crops or other desirable plants. It usually requires up to five years for herbicides containing picloram to be deactivated by the soil. Clippings from grass or crops which have been treated with Tordon 22K should not be used for composting or mulching, nor should the manure from animals grazing treated areas or fed treated forage be used around susceptible plants.

Do not mix in the sprayer with other herbicides or other pesticides. To avoid injury to desirable plants, containers used for Tordon 22K should not be reused to contain other materials. Spray equipment used to apply Tordon 22K should not be used to apply other pesticides to crops susceptible to herbicides containing picloram. If it is necessary to do so, contact your Dow AgroSciences Vegetation Management Specialist for detailed equipment clean-up procedures.

For pastures and rangelands: 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.

- Do not apply more than once per year.
- For non-crop uses: Do not enter or allow entry into treated areas during the restricted-entry interval (REI) of 12 hours or until sprays have dried.

- DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches 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.

Be Sure To Follow All Use Precautions Given On This Label And Remember These Key Points:

1. Use only the recommended amounts.
2. Tordon 22K is persistent. It will carry over in soil. Treated soil should not be moved out of the treated area.
3. Picloram is very difficult to clean from sprayers. Use a different sprayer for applying other materials to desirable plants or crops. Hand guns equipped with proportioning devices and reservoirs for Tordon 22K are useful in preventing sprayer contamination. With these devices, the farm sprayer is used only as a water reservoir.
4. Tordon 22K is water-soluble. It can move with water in irrigation or drainage ditches.
5. Spray drift can damage crops.

GENERAL USE

The rate of Tordon 22K required varies according to the weed species (see Table 1). Use enough water to wet the weeds without run-off, 400 to 800 L of spray per treated hectare is usually required. For small areas mix as directed in 18 L of water and apply 18 L of spray mixture per 100 m².

For use as a spot treatment on perennial weeds, mix at the rates given in Table 1. Apply at the rate of 800 L of spray mixture per treated hectare. For small areas use the rates given for treating 100 m² and apply in 18 L of water. For round patches apply as indicated in Table 2.

For the control of leafy spurge, field bindweed, toadflax only, a spot treatment rate of 90 mL per 100 m² may be used provided no more than 50% of a hectare is treated.

Table 1: Tordon 22K Application Rates

Weed Species	Amount per Hectare (litres)	Hectares Treated per 2 L	Amount (mL) per 100 m ²
scentless chamomile	1.1	1.6	11
diffuse or spotted knapweed	2.25	0.9	22
poverty weed sowthistle Canada thistle Russian knapweed pasture sage	4.5	0.4	45

Table 2: Round Patch Application Rates

Diameter of Round Patch to be Treated (Weed area plus 3 m border)	Litres of Spray Mixture to Apply
10 m	6.25
15 m	14
25 m	40
30 m	57
70 m	308

DIRECTIONS FOR USE - RANGELAND, PERMANENT GRASS PASTURES AND OTHER NON-CROPLAND AREAS

Mix with water and apply as a coarse, low pressure spray (150 to 350 kPa) or use other equipment designed to minimize spray drift. Apply any time when fully developed green leaves are present.

NOTE: Legumes are susceptible to Tordon 22K. Do not spray pastures containing forage legumes unless the kill of such legumes can be tolerated. Do not graze treated area by dairy animals within 6 weeks after treatment.

BUFFER ZONES TO PROTECT SENSITIVE HABITATS

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

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of Application	Crop	Buffer Zone (metres) Required for the Protection of:	
		Aquatic Habitats	Terrestrial Habitats
Field sprayer*	Rangeland and permanent grass pastures, non-cropland including rights-of-way	1	120**

*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%.

**Buffer zones for the protection of terrestrial habitats are not required for use on right-of-way including railroad ballast, rail and hydro rights-of-way, utility easements and roads.

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.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, Tordon 22K Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Tordon 22K 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 22K 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.

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