

(Sleeve)

GROUP	4	HERBICIDE
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NUFARM

EMBUTOX[®]
Liquid Herbicide

CONTAINS 2,4-DB EMULSIFIABLE CONCENTRATE

For use in seedling legume and grass forages, cereals (wheat, barley and oats) and pastures.

COMMERCIAL-AGRICULTURAL

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

ACTIVE INGREDIENT: 2,4-DB ... 625 g/L (present as 2-ethylhexyl ester)

REGISTRATION NO. 27912 PEST CONTROL PRODUCTS ACT



CAUTION

POISON

(1 to 450 Litres)

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

EMBUTOX is a registered trademark of Nufarm Agriculture Inc.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN.

Apply only when the potential for drift to non-target areas of human habitation and areas of human activity (houses, cottages, schools and recreational areas) is minimal, taking into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab.

If mixing and loading more than 395 L in a day, a closed mix/load system is required.

For groundboom application, if applying more than 395 L in a day, a closed cab tractor is required.

Avoid contact with skin, eyes and clothing. Wash concentrate from skin or eyes IMMEDIATELY. After use, wash hands and other exposed skin. Avoid breathing spray mist.

DO NOT enter or allow workers entry into treated areas during the restricted-entry intervals (REIs) specified in the following table:

Crop	Postapplication Activity	Restricted-Entry Interval
Wheat, barley, oats	Scouting	3 days
	All other activities	12 hours
Seedling alfalfa and bird's-foot trefoil, seedling clovers, seedling grasses for forage, pastures containing forage legumes	All activities	12 hours

ENVIRONMENTAL PRECAUTIONS:

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

This product contains aromatic petroleum distillates which are toxic to aquatic organisms.

TOXIC to non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

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.

FIRST AID:

If swallowed, call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. 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:

This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. No specific antidote. Employ supportive care. Treatment should be based on judgement of the physician in response to reactions of the patient.

EMERGENCY TELEPHONE NUMBERS:

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

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

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

STORAGE CONDITIONS:

Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs. Store this product away from food or feed. May be stored at any temperature. **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/territorial requirements.

For 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 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 reuse this container for any other purpose.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial 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 this 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.

(Booklet)

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DIRECTIONS FOR USE:**RESISTANCE-MANAGEMENT RECOMMENDATIONS:**

For resistance management, EMBUTOX Liquid Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to EMBUTOX 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 EMBUTOX Liquid Herbicide or other Group 4 herbicides within a growing season (sequence) or among growing seasons 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. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options
- 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:

EMBUTOX Liquid Herbicide may cause damage to susceptible crop, ornamental, and other plants, even in minute quantities.

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

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

Avoid spray drift to any desirable vegetation. Coarse sprays are less likely to drift.

Do not spray during periods of high winds.

A minimum rotational crop plant-back interval of 30 days must be observed for crops other than those listed on the label.

Do not graze or cut treated crops for forage or **hay** until 30 days after application.

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 S572.1) coarse classification.

Boom height must be 60 cm or less above the crop or ground.

Spray Buffer zones:

A spray buffer zone is NOT required for: uses with hand-held application equipment permitted on this label.

The spray buffer zones specified in the table 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).

Method of application	Crop	Spray Buffer Zones (metres) Required for the Protection of Terrestrial Habitat:
Field sprayer	Seedling alfalfa (direct or underseeded), Bird's-foot trefoil (direct or underseeded), Seedling clovers (direct or underseeded), Seedling grasses for forage	1
	Pasture containing forage legumes	2

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Drift Mitigation page of the Pesticides section of the Canada.ca website.

MIXING:

To ensure even mixing, half fill the sprayer tank with clean water, add the required amount of EMBUTOX Liquid Herbicide and agitate thoroughly. Add the remainder of the water and agitate before spraying. Wash sprayer thoroughly after use.

EQUIPMENT AND SPRAY VOLUME:

Apply in 150 to 200 litres of water per hectare by ground equipment.

Higher water volumes will reduce the risk of crop injury.

Use spray nozzles and pressures that deliver a medium to coarse quality spray.

Avoid generating fine, driftable droplets.

TANK MIXES:

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Nufarm Agriculture Inc. at 1-800-868-5444 for information before applying any tank mix that is not specifically recommended on this label.

CROPS, TIMING, RATES AND METHODS OF APPLICATION:

Use the dose required to control the weeds present.

To minimize the risk of crop injury, do not exceed the recommended rate listed for the crop.

Higher rates may be required to control certain weed species. Rates above those recommended for a crop may result in significant crop injury, and should only be used when the risk of crop injury will be offset by the benefits of enhanced weed control.

Apply in warm weather when the crop and weeds are growing well, and the weeds are at a susceptible stage.

Avoid application during drought conditions or during exceptionally hot weather.

CROP:

Seedling Alfalfa and Bird's-foot Trefoil, Direct or Underseeded

APPLICATION TIME:

From the first to the fourth trifoliate leaf stage.

For companion crop see below.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE: Up to 2.25 L

PRECAUTION: Substantial crop injury and reduction in forage dry matter may occur when EMBUTOX Liquid Herbicide is applied in accordance with the label.

CROP:

Seedling Clovers, Direct or Underseeded

APPLICATION TIME:

As soon as possible after the first trifoliate leaf stage.

DO NOT use on Sweet Clover.

Red and Alsike clover may be damaged.

TROPOTOX[®] PLUS is recommended for use in pure stands of Red clover.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE: Up to 2.25 L

PRECAUTION: Substantial crop injury and reduction in forage dry matter may occur when EMBUTOX Liquid Herbicide is applied in accordance with the label.

CROP:

Cereals (Wheat, Barley and Oats)

APPLICATION TIME:

After the crop has five fully expanded leaves but before the early flag leaf (shot-blade) stage.

Oats may be damaged if treated before the 5-leaf stage.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE: Up to 2.25 L

CROP:

Pasture Containing Forage Legumes

APPLICATION TIME:

After cutting or grazing preferably when regrowth is not above 7.5 cm high. Where thistle, yellow rocket or chicory are present grazing is preferable to cutting.

For the control of narrow-leaved hawk's-beard and yellow rocket in dormant established alfalfa only, apply EMBUTOX Liquid Herbicide at 2.25 to 2.75 L/ha in the fall after alfalfa has ceased growing.

Do not apply to established alfalfa that is actively growing as crop injury may result.

Damage, especially to established alfalfa, may occur and is likely to increase in severity the longer treatment is delayed beyond the stage recommended above.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE: Up to 2.75 L

CROP:

Seedling Grasses for Forage (Smooth Bromegrass, Creeping Red Fescue, Meadow Fescue, Tall Fescue, Orchard Grass, Timothy, Crested Wheatgrass, Intermediate Wheatgrass, Streambank Wheatgrass, Tall Wheatgrass)

APPLICATION TIME:

At the 2- to 4-leaf stage of the seedling grasses.

METHOD:

Ground application.

RECOMMENDED RATE PER HECTARE: Up to 2.25 L

WEEDS CONTROLLED WITH 1.75 L PER HECTARE EMBUTOX LIQUID HERBICIDE:

Stinkweed, Ragweed, Redroot pigweed, Shepherd's-purse, Lamb's-quarters, Wormseed mustard, Ball mustard, Wild mustard*.

APPLICATION TIME:

Spray when the weeds are in the seedling stage.

Resistance increases with age.

* Wild mustard plants beyond the 4-leaf stage are not likely to be controlled by EMBUTOX Liquid Herbicide alone. For better wild mustard and narrow-leaved hawk's-beard control in seedling alfalfa and Bird's-foot trefoil, EMBUTOX Liquid Herbicide at the reduced rate of 1.25 L/ha may be tank-mixed with MCPA amine salt at 35 g active

ingredient/ha (for example, 70 ml/ha of MCPA Amine 500). This tank-mix may increase crop stunting.

WEEDS CONTROLLED WITH 2.25 - 2.75 L EMBUTOX LIQUID HERBICIDE PER HECTARE:

The higher rate is more effective and should be used where tolerated by the crop.

Oak-leaved goosefoot:	Spray at or before 2-leaf stage.
Wild buckwheat:	Spray at or before 2-leaf stage.
Wild radish:	Spray at or before 2-leaf stage.
Bull thistle:	Spray at rosette to early bud stage.
Perennial sow-thistle:	Spray at rosette stage.
Chicory:	Spray at rosette stage.
Canada thistle:	Top growth control, spray from 15 cm to early bud stage.
Curled dock:	Early growth.
Plantain:	Before flowering.
Field bindweed:	For best results spray in late summer. Spring treatment controls top growth
Yellow rocket:	Spray from the third week of September to the middle of October.
Narrow-leaved hawk's-beard	Spray at rosette stage in late fall after legume growth ceases.

WEEDS MODERATELY SUSCEPTIBLE TO 2.75 L EMBUTOX LIQUID HERBICIDE PER HECTARE:

Horsetail:	Top growth control, spray when 10 to 13 cm high.
Dandelion:	Top growth control, spray before bud stage.
Lady's-thumb:	Seedlings only stunted.
Green smartweed:	Seedlings only stunted.

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