

2020-1786  
2020-12-03

GROUP	<b>1</b>	HERBICIDE
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**SIGNAL HERBICIDE**  
**EMULSIFIABLE CONCENTRATE**

COMMERCIAL (AGRICULTURAL)

**FOR SALE FOR USE IN THE PRAIRIE PROVINCES AND INTERIOR OF BRITISH COLUMBIA  
(INCLUDING THE PEACE RIVER REGION) ONLY**

A post emergence herbicide for control of wild oats, volunteer (tame) oats, green foxtail, yellow foxtail, barnyard grass, Persian dandelion and volunteer canary seed in spring wheat and Durum wheat.

**ACTIVE INGREDIENT:**

Clodinafop-propargyl ..... 240 g/L

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

CAUTION



POISON

**WARNING: EYE & SKIN IRRITANT**

Warning, contains the allergen epoxidized soybean oil

REGISTRATION NO.: 29172  
PEST CONTROL PRODUCTS ACT

NET CONTENTS: 1.84 L - **Bulk (Liters)**

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

## 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.

## FIRST AID

**IN CASE OF POISONING**, contact a physician or a poison control centre **IMMEDIATELY**. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**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 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 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.

## TOXICOLOGICAL INFORMATION

This product contains materials that may cause severe pneumonitis if aspirated. Treat symptomatically for ingestion and/or skin and eye contact. This product contains PETROLEUM DISTILLATES. **DO NOT INDUCE VOMITING.**

## PRECAUTIONS

- CAUTION – POISON
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- KEEP OUT OF THE REACH OF CHILDREN.
- Harmful if swallowed.

May irritate eyes. Do not wear contact lenses when using. **DO NOT** get in eyes or on skin. Avoid contact with clothing.

If mixing and loading more than 15 kg a.i. in a day, workers must use a closed mixing/loading system.

During mixing, loading, clean-up, repair and when applying by groundboom, workers must wear coveralls over long-sleeved shirt and long pants, shoes and socks, goggles, and chemical-resistant gloves. When applying by aerial application, pilots must wear long-sleeved shirt and long pants.

Wash gloves thoroughly with soap and water before removing them during any operation.

Wash hands thoroughly with soap and water after using this product and before eating, drinking or smoking.

Remove contaminated clothing immediately after use. Store and wash contaminated clothing separately from household laundry before reuse. Wash thoroughly with soap and water after handling after handling and before eating, drinking or smoking.

Do not eat, drink or smoke while mixing, loading or during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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 inversions, application equipment and sprayer settings.

Do not contaminate streams, rivers, lakes, ponds, wetlands, sloughs, irrigation water, vegetated ditch banks, and water used by livestock or for domestic purposes.

## **ENVIRONMENTAL PRECAUTIONS**

- TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.
- TOXIC to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.
- The residues of this product demonstrate the properties and characteristics associated with chemicals detected in ground water. The use of clodinafop-propargyl products in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.
- 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.

This product contains an active ingredient and aromatic petroleum distillates which are toxic to aquatic organisms.

## **STORAGE**

To prevent contamination store this product away from food or feed.

## **DISPOSAL OF UNUSED, UNWANTED PRODUCT**

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.

## **CONTAINER 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.

### **For 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.

**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.

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Wash hands thoroughly with soap and water after using this product and before eating, drinking or smoking.

Remove contaminated clothing immediately after use. Store and wash contaminated clothing separately from household laundry before reuse. Wash thoroughly with soap and water after handling after handling and before eating, drinking or smoking.

Do not eat, drink or smoke while mixing, loading or during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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 inversions, application equipment and sprayer settings.

Do not contaminate streams, rivers, lakes, ponds, wetlands, sloughs, irrigation water, vegetated ditch banks, and water used by livestock or for domestic purposes.

## **ENVIRONMENTAL PRECAUTIONS**

- TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.
- TOXIC to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.
- The residues of this product demonstrate the properties and characteristics associated with chemicals detected in ground water. The use of clodinafop-propargyl products in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.
- 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.

This product contains an active ingredient and aromatic petroleum distillates which are toxic to aquatic organisms.

## **STORAGE**

To prevent contamination store this product away from food or feed.

## **DISPOSAL OF UNUSED, UNWANTED PRODUCT**

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.

## **CONTAINER DISPOSAL:**

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### **For refillable containers:**

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#### **EMERGENCY TELEPHONE NUMBERS:**

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#### **PRODUCT INFORMATION**

SIGNAL HERBICIDE is a systemic, post-emergence herbicide for the selective control of wild oats, volunteer (tame) oats, green foxtail, yellow foxtail, barnyard grass, Persian dandelion and volunteer canary seed in all types of spring wheat and Durum wheat. Do not use SIGNAL HERBICIDE on barley, as crop injury will occur. Do not apply this product using aerial application equipment except under conditions specified on this label.

SIGNAL HERBICIDE is absorbed by the leaves and is rapidly translocated to the growing points of leaves and stems. Thorough coverage of the plants is essential for consistent control. Actively growing susceptible grasses stop growing within 48 hours of treatment. Depending on species, growing conditions and crop competition, leaves and growing points turn yellow within one to three weeks after application. Further colour changes and loss of vigour will be observed, followed by a browning and complete control three to five weeks after application.

Although SIGNAL HERBICIDE does not control broadleaf weeds, SIGNAL HERBICIDE can be tank-mixed with a wide range of broadleaf herbicides to provide broad spectrum weed control in wheat. It can also be tank mixed with Decis® Flowable Insecticide and MATADOR® 120EC Insecticide to control grassy weeds and insects and with TILT® 250E Fungicide to control grassy weeds and cereal leaf diseases. See section entitled "TANK MIXES of SIGNAL HERBICIDE WITH BROADLEAF WEED HERBICIDES, INSECTICIDES AND FUNGICIDES" and refer to the appropriate Tank Mix section for ground and aerial application.

#### **DIRECTIONS FOR USE**

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, fine textured, or low in organic matter such as clay.)

A 30-day plant-back interval must be observed for all unlabelled crops.

**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) medium classification. Boom height must be 60 cm or less above the crop or ground.

**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 S572.1) coarse classification. Reduce drift caused by turbulent wingtip vortices. The nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan.

**CROPS:** Spring Wheat and Durum Wheat



SIGNAL HERBICIDE can be used on all varieties of spring wheat and Durum wheat. Do not apply on barley or any crop other than Spring Wheat or Durum wheat, as crop damage will result. Do not allow spray to drift to adjacent fields seeded to crops other than spring wheat or Durum wheat.

Do not treat wheat underseeded to forages.

Observe a minimum pre-harvest interval of 60 days after treatment for grain and straw and of 30 days after treatment for hay. Observe a minimum of seven (7) days before grazing livestock on treated crops.

For use directions specific to application by air, please refer to sections on aerial application. For aerial application precautions, please refer to the precautions section.

**WEEDS CONTROLLED:** Wild Oats, Volunteer (Tame) Oats, Green Foxtail, Yellow Foxtail, Barnyard grass, Persian Darnel and Volunteer Canary Seed

**TIMING OF APPLICATION:**

TIMING	GROWTH STAGE	ADDITIONAL REMARKS
WILD OATS	1 to 6 leaf stage on main stem	Prior to emergence of 4th tiller
VOLUNTEER (TAME) OATS	3 to 6 leaf stage on main stem	Prior to emergence of 4th tiller
GREEN FOXTAIL AND YELLOW FOXTAIL (wild millet, pigeon grass)	1 to 5 leaf stage on main stem	For optimum control apply prior to emergence of the 3 <sup>rd</sup> tiller and while foxtail is actively growing
BARNYARD GRASS	1 to 5 leaf stage on main stem	For optimum control apply before tillering, and while barnyard grass is actively growing
PERSIAN DARNEL	1 to 5 leaf stage on main stem	For optimum control apply before tillering, and while Persian darnel is actively growing
VOLUNTEER CANARY SEED	1 to 6 leaf stage on main stem	Prior to emergence of 4th tiller
SPRING WHEAT AND DURUM WHEAT	Prior to emergence of 4th tiller	When tank-mixing with a broadleaf herbicide, insecticide or a fungicide, always refer to the label of the broadleaf partner, insecticide partner or fungicide partner prior to use.

- For optimum results, apply SIGNAL HERBICIDE to actively growing weeds. An early application will maximize crop yields by reducing weed competition. Weeds emerging after application of SIGNAL HERBICIDE will not be controlled.
- Weed control following application of SIGNAL HERBICIDE alone, or in combination with broadleaf weed herbicides, can be reduced or delayed under stress conditions such as drought, heat, insufficient fertility, flooding or prolonged cool temperatures. Grass escapes or re-tillering may occur if application is made during prolonged stress conditions. Optimum weed control will be obtained if application of SIGNAL HERBICIDE is delayed until the stress conditions have ended and weeds are once again actively growing.
- SIGNAL HERBICIDE alone can be used 30 minutes before rainfall.
- Do not apply to crop that is stressed by conditions such as frost, low fertility, drought, flooding, disease or insect damage as crop injury may result.

**RATE OF USE FOR GROUND APPLICATION:**

Apply the recommended rate of SIGNAL HERBICIDE and the recommended rate of SIGNAL ADJUVANT or NUFARM ENHANCE in a minimum of 50 to 100 L of water per hectare.

<b>To Control:</b> WILD OATS VOLUNTEER (TAME) OATS GREEN FOXTAIL YELLOW FOXTAIL BARNYARD GRASS VOLUNTEER CANARY SEED	<b>To Control:</b> WILD OATS VOLUNTEER (TAME) OATS GREEN FOXTAIL YELLOW FOXTAIL BARNYARD GRASS VOLUNTEER CANARY SEED PERSIAN DARNEL
<b>Apply:</b> 230 mL/ha of SIGNAL HERBICIDE + 0.8% v/v of SIGNAL ADJUVANT or 0.25 % v/v of NUFARM ENHANCE	<b>Apply:</b> 290 mL/ha of SIGNAL HERBICIDE + 1.0% v/v of SIGNAL ADJUVANT or 0.32 % v/v of NUFARM ENHANCE

**RATE OF USE FOR AERIAL APPLICATION:**

Apply the recommended rate of SIGNAL HERBICIDE and the recommended rate of SIGNAL ADJUVANT or NUFARM ENHANCE in a minimum of 30 L of water per hectare according to the following table:

<b>To Control:</b> WILD OATS	<b>To Control:</b> WILD OATS GREEN FOXTAIL YELLOW FOXTAIL PERSIAN DARNEL
<b>Apply:</b> 230 mL/ha of SIGNAL HERBICIDE + 0.8 % v/v of SIGNAL ADJUVANT (240 mL per 30 L of spray mixture) or 0.25 % v/v of NUFARM ENHANCE (75 mL per 30 L of spray mixture)	<b>Apply:</b> 290 mL/ha of SIGNAL HERBICIDE + 1.0 % v/v of SIGNAL ADJUVANT (300 mL per 30 L of spray mixture) or 0.32 % v/v of NUFARM ENHANCE (96 mL per 30 L of spray mixture)

**TANK MIXES of SIGNAL HERBICIDE WITH BROADLEAF WEED HERBICIDES, INSECTICIDES AND FUNGICIDES – GROUND APPLICATION:**

**CROP:** SPRING and DURUM WHEAT

**TANK MIXES WITH BROADLEAF WEED HERBICIDES, INSECTICIDES AND FUNGICIDES IN SPRING WHEAT and DURUM WHEAT:**

For broad spectrum control of wild oats, green foxtail, barnyard grass, Persian Darnel and broadleaf weeds, SIGNAL HERBICIDE Tank Mix can be tank-mixed with broadleaf herbicides as described in the following tables. SIGNAL HERBICIDE Tank Mix can also be tank-mixed with Decis® Flowable Insecticide and MATADOR® 120EC Insecticide for control of insects listed on the Decis Flowable Insecticide and MATADOR 120EC Insecticide label and with TILT 250E Fungicide for control of diseases listed on the TILT® 250E Fungicide label, in addition to grassy weeds. Consult the label of the tank-mix partner for a list of broadleaf weeds, insects or diseases controlled, rates, timing, recropping restrictions, grazing interval

restrictions, recommendations for specific weeds/insects/diseases, directions for use and precautions and follow the more restrictive label. When tank-mixing always add the broadleaf herbicide(s), insecticide or fungicide to the spray tank first; followed by SIGNAL HERBICIDE, with SIGNAL ADJUVANT or NUFARM ENHANCE added last. For the appropriate rate of SIGNAL HERBICIDE with SIGNAL ADJUVANT or NUFARM ENHANCE, refer to the `Rate of Use' section of the label.

**Tank mixes for broad spectrum control of wild oats, green foxtail, broadleaf weeds, insects and diseases:**

<b>Tank-Mix Partner</b>	<b>Product Rates</b>	<b>Crop Stage<sup>1</sup></b>
TARGET <sup>®</sup> Liquid Systemic Herbicide	1.0 to 1.5 L/ha	2 to 5 leaf
Dyvel <sup>®</sup> Herbicide Agricultural	1.25 L/ha	2 to 5 leaf
Buctril <sup>®</sup> M	1.0 L/ha	2 leaf to flag leaf
Estaprop <sup>®</sup> Plus Liquid Herbicide	1.75 L/ha	4 leaf to early flag leaf (shot blade)
Turboprop <sup>®</sup>	1.75 L/ha	4 leaf to early flag leaf (shot blade)
Dichlorprop <sup>™</sup> -D	1.75 L/ha	4 leaf to early flag leaf (shot blade)
Lontrel <sup>®</sup> 360	0.42 to 0.84 L/ha	3 leaf to flag leaf
Lontrel 360 tank mixed with MCPA Ester (assume 500 series)	280 - 420 mL/ha tank mixed with 1.1 L/ha	3 leaf to flag leaf
Curtail <sup>®</sup> M	1.5 to 2.0 L/ha	3 leaf to just before flag leaf
Prestige <sup>®</sup> Herbicide Tank Mix <sup>7</sup>	600 - 800 mL/ha of Prestige A + 1.5 - 2.0 L/ha of Prestige B	3 leaf to flag leaf
Approve <sup>®</sup> Herbicide	1.24 L/ha	4 leaf to flag leaf
Thumper <sup>®</sup> EC	1.0 L/ha	4 leaf to flag leaf
2,4-D Amine (assume 500 series) <sup>3</sup>	840 mL to 1.1 L/ha	3 leaf to flag leaf
2,4-D Amine (assume 600 series) <sup>3</sup>	700 – 920 mL/ha	3 leaf to flag leaf
MCPA Amine (assume 500 series) <sup>3</sup>	840 mL to 1.1 L/ha	3 leaf to flag leaf
MCPA Amine (assume 600 series) <sup>3</sup>	700 – 920 mL/ha	3 leaf to flag leaf
MCPA Ester (assume 500 series)	840 mL to 1.1 L/ha	3 leaf to flag leaf
MCPA Ester (assume 600 series)	700 – 920 mL/ha	3 leaf to flag leaf
MCPA 300SL Sodium salt	1.2 L to 2.7 L/ha <sup>5</sup>	3 leaf to flag leaf
Koril <sup>®</sup> 235 Liquid Herbicide	1.2 L/ha	2 leaf to flag leaf
Pardner <sup>®</sup>	1.0 L/ha	2 leaf to flag leaf
Ally <sup>®</sup> <sup>2</sup>	7.5 g/ha	2 leaf to flag leaf
Attain <sup>®</sup> Herbicide Tank Mix <sup>7</sup>	450 - 600 mL/ha of Attain A + 0.75 - 1.0 L/ha of Attain B	4 leaf to flag leaf
Decis Flowable Insecticide	80-120 mL/ha	Prior to emergence of 4 <sup>th</sup> tiller
TILT <sup>®</sup> 250E Fungicide	250 - 500 mL/ha	Prior to emergence of 4 <sup>th</sup> tiller
Mecoprop-P <sup>5</sup>	5.5 - 7.0 L/ha	3 leaf to just before flag leaf
MATADOR <sup>®</sup> 120EC Insecticide	63 - 83 mL/ha	Prior to emergence of 4 <sup>th</sup> tiller
MEXTROL <sup>®</sup> 450 Liquid Herbicide	1.25 L/ha	2 leaf to flag leaf
Trophy <sup>®</sup> Herbicide Tank-Mix <sup>4</sup>	0.6 L/ha of Trophy A + 1.12 L/ha Trophy B	3 leaf to flag leaf
Florasulam <sup>®</sup> SC Herbicide Tank Mix	100 mL/ha of Florasulam SC	2 to 4 leaf
Benchmark <sup>®</sup> Herbicide Tank Mix	100 mL/ha Benchmark A + 1.12 L/ha Benchmark B	2 to 6 leaf
Refine Extra <sup>®2</sup> 75 DF tank-mixed with Accord <sup>®</sup> DF Herbicide <sup>6</sup>	20 g/ha of Refine Extra + 67 g/ha of Accord DF	2 to 5 leaf
Refine SG <sup>®</sup> Herbicide <sup>2</sup>	30 g/ha	2 leaf to flag leaf
Refine SG Toss-N-Go Herbicide <sup>®2</sup>	30 g/ha	2 leaf to flag leaf

<sup>1</sup> Always consult the label of the broadleaf herbicide, insecticide or fungicide prior to use.

<sup>2</sup> Addition of surfactants other than SIGNAL ADJUVANT or NUFARM ENHANCE is not required.
<sup>3</sup> A reduction in control of green foxtail and wild oats may be observed when SIGNAL HERBICIDE is tank mixed with 2,4-D Amine and MCPA Amine.
<sup>4</sup> Rates above 2.0 L/ha may cause crop injury
<sup>5</sup> Tank mix with Mecoprop-P provides suppression of Canada Thistle (top growth control)
<sup>6</sup> When tank-mixing with Accord DF Herbicide, do not graze treated crops or cut for hay within 77 days of application.
<sup>7</sup> Refer to broadleaf tank-mix label for list of weeds controlled at low and high use rates.
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**For the control of barnyard grass and broadleaf weeds, in addition to wild oats and green foxtail, use one of the following tank mixes:**

Tank Mix Partner	Product Rates	Crop Stage <sup>1</sup>
Target Liquid Systemic Herbicide	1.0 to 1.5 L/ha	2 to 5 leaf
Buctril M	1.0 L/ha	2 leaf to flag leaf
Estaprop Plus Liquid Herbicide	1.75 L/ha	4 leaf to early flag leaf (shot blade)

<sup>1</sup> Always consult the label of the broadleaf herbicide prior to use.

**For control of Persian Darnel\* and broadleaf weeds, in addition to wild oats, green foxtail and barnyard grass, use the following tank mix:**

Tank Mix Partner	Product Rates	Crop Stage <sup>1</sup>
Buctril M	1.0 L/ha	2 leaf to flag leaf

<sup>1</sup> Always consult the label of the broadleaf herbicide prior to use.

\* Use the higher rate of SIGNAL HERBICIDE Tank Mix to control Persian Darnel. Refer to the "Rate of Use" section of the label.

Temporary crop injury may occur with tank-mixes under extreme weather conditions or when the crop is suffering from stress due to inadequate or abnormally high moisture level or extreme temperatures.

Do not tank-mix with any chemical additives, pesticides, or fertilizers that are not recommended on this label.

### **TANK MIXES OF SIGNAL HERBICIDE WITH BROADLEAF WEED HERBICIDES - AERIAL APPLICATION:**

**CROP:** SPRING WHEAT and DURUM WHEAT

For broad spectrum control of wild oats, green foxtail and broadleaf weeds, SIGNAL HERBICIDE can be tank-mixed with Buctril M. Consult the label of the tank-mix partner for a list of broadleaf weeds controlled, rates, timing, recropping restrictions, grazing interval restrictions, recommendations for specific weeds, directions for use and precautions and follow the more restrictive label. Use in a minimum of 30L of water per hectare.

Tank-mixes of SIGNAL HERBICIDE with broadleaf weed herbicides - Aerial application: When tank-mixing always add the broadleaf herbicide (Buctril M) to the spray tank first; followed by SIGNAL HERBICIDE, with SIGNAL ADJUVANT or NUFARM ENHANCE added last. For the appropriate rate of SIGNAL HERBICIDE with SIGNAL ADJUVANT or NUFARM ENHANCE refer to the 'Rate of Use For Aerial Application' section of the label.		
Tank-Mix Partner	Product Rates	Crop Stage <sup>1</sup>
Buctril M	1.0 L/ha	2 leaf to flag leaf

<sup>1</sup> Always consult the label of the broadleaf partner prior to use.

Temporary crop injury may occur with tank-mixes under extreme weather conditions or when the crop is suffering from stress due to inadequate or abnormally high moisture level or extreme temperatures.

Do not tank-mix with any chemical additives, pesticides, or fertilizers that are not recommended on this label.

#### **MIXING INSTRUCTIONS - GROUND APPLICATION:**

1. Clean spray tank and half fill with clean water. Start agitation or bypass system
2. If a broadleaf herbicide, insecticide or fungicide is to be used, add the product FIRST prior to adding SIGNAL HERBICIDE and agitate for 2-3 minutes.
3. Add correct amount of SIGNAL HERBICIDE.
4. Agitate for 2-3 minutes.
5. Add correct amount of SIGNAL ADJUVANT or NUFARM ENHANCE.
6. Agitate for 1-2 minutes before adding remainder of water and then maintain constant agitation.
7. After any break in spraying operations, agitate thoroughly before spraying again.
8. **Use the spray suspension as soon as it is prepared.**
9. If an oil film starts to build up in the tank, drain tank and then clean with a detergent.

#### **SPRAYING INSTRUCTIONS - GROUND APPLICATION:**

1. SIGNAL HERBICIDE can be applied by ground or air. For aerial application instructions, refer to the section entitled "SPRAYING INSTRUCTIONS - AERIAL APPLICATION" which follows this section.
2. Water Volume: 50 to 100 litres per hectare when applied alone and a minimum of 100L/ha when tank-mixed with broadleaf herbicides
3. Spray Nozzles: 80° or 110° flat fan stainless steel nozzles are recommended for optimal spray coverage. Application of the spray mixture at a 45° angle in the direction of travel will result in improved spray coverage. Use 50 mesh nozzle screens. Do not use flood type nozzles, controlled droplet application equipment, spray foils or hollow cone nozzles.
4. Pressure: 275-310 kPa.
5. Apply uniformly at 6-8 km/hr and avoid overlapping. Shut off spray boom while starting, turning, slowing or stopping to prevent crop injury from an over application.
6. Do not contaminate streams, rivers, lakes, ponds, wetlands, sloughs, irrigation water, vegetated ditch banks, and water used by livestock or for domestic purposes. Do not apply within 15 meters of a wetland area or any of the aforementioned bodies of water.

#### **AERIAL APPLICATION**

##### **Generic Aerial Application Label Instructions - 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 have communication capabilities at each treatment site at the time of application.

During mixing, loading, clean-up, repair and when applying by groundboom, workers must wear coveralls over long-sleeved shirt and long pants, shoes and socks, goggles, and chemical-resistant gloves. When applying by aerial application, pilots must wear long-sleeved shirt and long pants. 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:

#### **MIXING INSTRUCTIONS - AERIAL APPLICATION:**

1. Fill the mixing tank 1/2 full with clean water. Start gentle agitation.
2. If a broadleaf herbicide is to be used, add the product **FIRST** prior to adding SIGNAL HERBICIDE and agitate for 2-3 minutes.
3. Add correct amount of SIGNAL HERBICIDE.
4. Agitate for 2-3 minutes.
5. Add correct amount of SIGNAL ADJUVANT or NUFARM ENHANCE.
6. Agitate for 1-2 minutes before adding remainder of water and then maintain constant agitation.
7. Fill aircraft spray tank and maintain gentle agitation while spraying.
8. After any break in spraying operations, agitate thoroughly before spraying again. Do not let contents stand without agitation.
9. **Use the spray suspension as soon as it is prepared.**
10. If an oil film starts to build up in the tank, drain tank and then clean with a detergent.

#### **SPRAYING INSTRUCTIONS - AERIAL APPLICATION:**

1. SIGNAL HERBICIDE can be applied by ground or by air. For ground application instructions, refer to the section entitled "SPRAYING INSTRUCTIONS - GROUND APPLICATION" which precedes this section.
2. Water Volume - Aerial application: Minimum of 30 litres per hectare when applied alone or when tank mixed with Buctril M.

3. When applying by aircraft, applicators are required to use spray nozzles or nozzle configurations and spraying pressures which will provide a COARSE droplet size distribution, with a volume medium diameter (VMD) greater than 350 microns.
4. Aerial drift is increased under certain meteorological conditions. Do not apply during periods of dead calm, when winds are gusty or when wind speed is greater than 16 km/hr.
5. For the protection of non-target habitats, overspray or drift to sensitive habitats must be avoided. A buffer zone of 76 metres is required between the downwind edge of the boom and sensitive terrestrial habitats including grasslands, forested areas, shelter belts, woodlots, hedgerows and shrublands. A buffer zone of 72 meters is required between the downwind edge of the boom and sensitive aquatic habitats such as sloughs, ponds, prairie potholes, lakes, rivers, streams and irrigation ditches, and the vegetation surrounding wetlands. Do not contaminate these habitats when cleaning and rinsing spray equipment or containers.
6. When a tank mixture is used, consult the label of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.
7. Ensure uniform application. To avoid uneven or overlapped application, use appropriate marking devices. Do not use human flaggers.

#### **SPRAYER CLEAN-UP:**

1. Thoroughly clean application equipment immediately after spraying. Ensure that all traces of the product are removed. The following recommendations are provided:
2. Drain and flush tank walls, boom and all hoses for ten minutes with clean water. Do not clean the sprayer near desirable vegetation, wells, or other water sources.
3. Remove the nozzles and screens and wash separately.
4. Dispose of all rinsings in accordance with provincial regulations.
5. If a broadleaf tank-mix partner is used, always check tank-mix partner label for any additional clean up procedures.

#### **Resistance-Management Recommendations**

For resistance management, SIGNAL HERBICIDE is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to SIGNAL HERBICIDE and other Group 1 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 SIGNAL HERBICIDE or other Group 1 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](http://www.nufarm.ca).

**NOTE TO USER:**  
 READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS:

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Nufarm Agriculture Inc. under the User Requested Minor Use Label Expansion program. For these uses, Nufarm Agriculture Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

**DIRECTIONS FOR USE IN THE OKANAGAN AND CRESTON FLATS REGION OF BC:**

SIGNAL HERBICIDE can be used for the control of wild oats, green foxtail and yellow foxtail in spring wheat and durum wheat in the Okanagan and Creston Flats Regions of British Columbia. For information on crop and weed stages, rates of application, mixing and spraying instructions and precautions see the appropriate sections elsewhere on this label.

**BUFFER ZONES:**

Spot treatments using hand-held equipment DO NOT require a buffer zone.

The 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) and sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

Method of application	Crop		Buffer Zones (metres) Required for the Protection of:		
			Freshwater Habitat of Depths:		Terrestrial Habitat:
			Less than 1 m	Greater than 1 m	
Field sprayer	Spring and durum wheat		1	0	1
Aerial	Spring and durum wheat	Fixed wing	1	0	20
		Rotary wing	1	0	20

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) 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 buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator in the Pesticides portion of Canada.ca.



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