(Container)



# Attain<sup>™</sup> XC B Herbicide

GROUP	4	HERBICIDE

For the selective control of broadleaved weeds in wheat and barley

COMMERCIAL

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

ACTIVE INGREDIENT: 2,4-D, present as 2-ethylhexyl ester at 660 g a.e./L Emulsifiable concentrate

REGISTRATION NO. 29972 PEST CONTROL PRODUCTS ACT



# WARNING – SKIN IRRITANT POTENTIAL SKIN SENSITIZER

NET CONTENTS: 8.0 L - bulk

Corteva Agriscience Canada Company

Suite 240, 115 Quarry Park Rd. SE Calgary, AB T2C 5G9 1-800-667-3852

<sup>™</sup>Trademark of Corteva Agriscience and its affiliated companies.

# PRECAUTIONS

# KEEP OUT OF REACH OF CHILDREN

Causes skin irritation. DO NOT get on skin. Harmful if swallowed. Potential skin sensitizer.

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.

# PROTECTIVE CLOTHING AND EQUIPMENT

# Application with Ground and Aerial Equipment or Using Handheld Equipment

- During mixing, loading, applying, clean-up and repair, wear coveralls over 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 an enclosed airplane cockpit.
- No human flaggers are permitted for aerial applications.

# Transfer System

- For 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.
- When handling more than 400 L of Attain XC B Herbicide per day workers must also use a closed system.

# **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.

# 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 a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**If inhaled**: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**If in eyes**: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

#### **TOXICOLOGICAL INFORMATION**

No specific antidote. Employ supportive care. Treatment should be based on judgement of the physician in response to reactions of the patient. This product may cause mild irritation to the eyes. Overexposure to 2,4-D may cause coughing, burning, dizziness or temporary loss of muscle coordination. Other possible effects of overexposure include fatigue, muscle weakness or nausea. Treat symptomatically.

### AGRICULTURAL CHEMICAL

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

# **ENVIRONMENTAL HAZARDS**

Toxic to small wild mammals, birds, aquatic organisms and nontarget terrestrial plants. This product will harm other broadleaved plants in the vicinity of the treatment area. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) and/or 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 of this product when heavy rain is forecast. Contaminations 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.

Observe buffer zones specified under BUFFER ZONES.

#### STORAGE

To prevent contamination, store this product away from food or feed. This product must be stored away from fertilizers, seeds, insecticides, fungicides or other herbicides intended for use on 2,4-D 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.

**NOTE:** Local conditions may affect the use of herbicides. Provincial agricultural authorities issue recommendations to fit local conditions. Be sure that use of this product conforms to all applicable regulations.

If this product is exposed to temperatures below -20°C, it should be warmed to at least 5°C and mixed thoroughly before using.

**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.

(Booklet)



# Attain<sup>™</sup> XC B Herbicide

GROUP	4	HERBICIDE

For the selective control of broadleaved weeds in wheat and barley

COMMERCIAL

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

ACTIVE INGREDIENT: 2,4-D, present as 2-ethylhexyl ester at 660 g a.e./L Emulsifiable concentrate

REGISTRATION NO. 29972 PEST CONTROL PRODUCTS ACT



WARNING – SKIN IRRITANT POTENTIAL SKIN SENSITIZER

NET CONTENTS: 8.0 L - bulk

Corteva Agriscience Canada Company Suite 240, 115 Quarry Park Rd. SE Calgary, AB T2C 5G9 1-800-667-3852

<sup>™</sup>Trademark of Corteva Agriscience and its affiliated companies.

---Internal Use---

# PRECAUTIONS

# KEEP OUT OF REACH OF CHILDREN

Causes skin irritation. DO NOT get on skin. Harmful if swallowed. Potential skin sensitizer.

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.

# PROTECTIVE CLOTHING AND EQUIPMENT

# Application with Ground and Aerial Equipment or Using Handheld Equipment

- During mixing, loading, applying, clean-up and repair, wear coveralls over 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 an enclosed airplane cockpit.
- No human flaggers are permitted for aerial applications.

# **Transfer System**

- For 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.
- When handling more than 400 L of Attain XC B Herbicide per day workers must also use a closed system.

#### **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.

# 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 a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**If inhaled**: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**If in eyes**: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

#### **TOXICOLOGICAL INFORMATION**

No specific antidote. Employ supportive care. Treatment should be based on judgement of the physician in response to reactions of the patient. This product may cause mild irritation to the eyes. Overexposure to 2,4-D may cause coughing, burning, dizziness or temporary loss of muscle coordination. Other possible effects of overexposure include fatigue, muscle weakness or nausea. Treat symptomatically.

### AGRICULTURAL CHEMICAL

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

# **ENVIRONMENTAL HAZARDS**

Toxic to small wild mammals, birds, aquatic organisms and nontarget terrestrial plants. This product will harm other broadleaved plants in the vicinity of the treatment area. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) and/or 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 of this product when heavy rain is forecast. Contaminations 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.

Observe buffer zones specified under BUFFER ZONES.

#### STORAGE

To prevent contamination, store this product away from food or feed. This product must be stored away from fertilizers, seeds, insecticides, fungicides or other herbicides intended for use on 2,4-D 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.

**NOTE:** Local conditions may affect the use of herbicides. Provincial agricultural authorities issue recommendations to fit local conditions. Be sure that use of this product conforms to all applicable regulations.

If this product is exposed to temperatures below -20°C, it should be warmed to at least 5°C and mixed thoroughly before using.

# **DIRECTIONS FOR USE – GENERAL PRECAUTIONS**

This pesticide 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 suppliers or aquatic habitats by cleaning of equipment or disposal of wastes.

#### Sensitive Plants

Vegetables, flowers, grapes, fruit trees and other desirable plants are sensitive to 2,4-D even in minute quantities. Care should be taken to avoid spraying these types of plants or allowing spray mist to drift onto these plants during both their growing and dormant periods. At higher temperatures, vaporization may cause injury to susceptible plants growing nearby. This product may cause damage to lawns or pastures if applied before the grass is well established. In addition, most legumes may be damaged or killed.

If applying this product using a handheld sprayer, do not directly spray or allow the spray to drift onto ornamentals or gardens.

Do not spray roots of trees and ornamentals.

When tank mixing, refer to the labels of the tank mix partners and follow all precautions and directions for use.

#### 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.

Observe buffer zones specified under BUFFER ZONES.

# **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) coarse classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotor-span.

Do not angle nozzles forward into the air-stream and do not increase the spray volume by increasing nozzle pressure. A spray thickening agent or drift retardant may be used with this product to aid in reducing spray drift. Fixed and rotary-winged aerial applications to field crops should be made in a minimum 30 L/ha total spray mixture.

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. Apply only be 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.

Observe buffer zones specified under BUFFER ZONES.

#### **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 over a long sleevedshirt, long pants, socks plus shoes, 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.

# DIRECTIONS FOR USE - CROP USE Ground Application

Apply 50 to 200 L of spray solution per hectare depending on the type of application equipment used. Use sufficient water for even distribution. Apply when the weeds are actively growing. Follow DIRECTIONS FOR USE – GENERAL PRECAUTIONS.

# Aerial Application (including fixed and rotary wing aircraft)

Apply a minimum 30 L of spray solution per hectare depending on the type of application system being used. Use boom pressures of 235 kPa or less. Avoid placing nozzles where spray will enter wing tip vortices. Follow DIRECTIONS FOR USE – GENERAL PRECAUTIONS.

# To Prepare a Spray

Add half the required amount of water to the spray tank, then the Attain XC B Herbicide with agitation, and finally the balance of the water with continued agitation.

**WARNING:** If preparing straight oil mixtures, do not let water get into the product or the finished mixture.

**NOTE:** This product in water forms an emulsion, not a solution, which tends to separate on standing. Agitate to prevent such separation and ensure uniformity of spray mixture.

# **Spot Treatment**

For knapsack application of Attain XC B Herbicide for spot treatment of weeds such as thistles, mix 0.17 L of product in 10 L of water. Wet all foliage thoroughly.

# Selective Weed Control in Small Grains

Weeds differ in their susceptibility to Attain XC B Herbicide and not all types can be controlled satisfactorily in crops. The amount of Attain XC B Herbicide to use will depend upon the susceptibility and whether the crops will tolerate this amount. See Table 1.

# Wheat and Barley

Spray from the 3-leaf expanded stage (15 cm tall) to just before the flag-leaf (shot-blade) stage. To avoid crop injury, do not treat during boot and flowering stages. Winter wheat should be treated in early spring, as soon as weeds appear and before the crop reaches the shot-blade stage.

# Suggested Amounts of Attain XC B Herbicide for Weed Control in Cereals (not underseeded to legumes)

Stage of Weed Kind of Weather	Amount L/ha	Hectares Treated/20L
Seedling	0.51 L	33
(2-4 leaves)		
Growing rapidly		
Weeds in bud	0.77 L	22
Dry, cool weather		
Heavy infestation		
Seedling	0.85 L‡+++	20
Growing rapidly		
Weeds in bud	1.28 L‡***	13
Dry or cool weather		
Heavy infestation		
	Kind of WeatherSeedling(2-4 leaves)Growing rapidlyWeeds in budDry, cool weatherHeavy infestationSeedling(2-4 leaves)Growing rapidlyWeeds in bud	Kind of WeatherL/haSeedling (2-4 leaves) Growing rapidly0.51 LWeeds in bud Dry, cool weather Heavy infestation0.77 LSeedling (2-4 leaves) Growing rapidly0.85 L‡***Weeds in bud Dry or cool weather1.28 L‡***

\*Top growth control only.

♥\*\*Better control will result from 2 treatments applied one week apart at 0.51 L/ha Attain XC B Herbicide.
\*\*\*The higher rates may cause deformities and delayed maturity which will be offset by a higher relative yield from a less weedy crop.

# **BUFFER ZONES**

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 terrestrial habitats (such as grasslands, forested areas, shelter belts woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Table 2 Buffer Zones required to protect sensitive terrestrial and aquatic habitats
---

	Сгор			Buffer Zones (metres) Required for the Protection of:			
Method of application			Ha	Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:	
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	Terrestrial habitat
Field sprayer⁺	Field crops (wheat, barley)		1	0	1	0	1
Aerial Field crops (wheat, barley)	Fixed wing	1	0	1	0	45	
	Rotary wing	1	0	1	0	40	

\*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%.

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.

# **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, Attain XC B Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Attain XC B 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 Attain XC B 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 Corteva Agriscience Canada Company at 1-800-667-3852 or at www.corteva.ca.

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

<sup>™</sup>Trademark of Corteva Agriscience and its affiliated companies. All other products listed are registered trademarks of their respective companies.