

22-OCT-2003

## **ANTHEM™ C SURFACTANT**

A component of Anthem Herbicide Tank Mix

FOR SALE FOR USE IN ALBERTA, SASKATCHEWAN AND MANITOBA

Anthem C Surfactant is a blend of surfactant and petroleum hydrocarbons designed for use with Anthem Herbicide Tank Mix. Refer to the Anthem Herbicide Tank Mix booklet for detailed mixing and use instructions.

**WARNING**  **POISON**

**SKIN IRRITANT**

**COMMERCIAL**

**GUARANTEE:** Surfactant blend 50%  
Solvent (petroleum hydrocarbons) 50%

**REGISTRATION NO. 26269 PEST CONTROL PRODUCTS ACT**

**READ THE LABEL AND BOOKLET BEFORE USING**

SHAKE WELL BEFORE USING

Monsanto Canada Inc.  
~~67 Scurfield Blvd.~~  
~~Winnipeg MB R3Y 1G4~~

900 - One Research Road  
Winnipeg, MB R3T 6E3

Notification Change

**NET CONTENTS:** 4 L

## **PRECAUTIONS**

### **KEEP OUT OF REACH OF CHILDREN.**

Do not take internally. Harmful if swallowed or absorbed through the skin. Skin irritant. Avoid inhalation of vapour, spray mist and contact with eyes, skin or clothing.

Wash thoroughly after handling and before eating, drinking or smoking.

Wear protective equipment and clothing including: goggles or face shield, gloves (rubber, PVC, neoprene or nitrile), hat, long sleeved shirt, trousers and rubber boots.

If clothing becomes contaminated, remove and wash separate from household laundry before re-use.

Clean spray equipment thoroughly after use.

Do not contaminate domestic or irrigation water, lakes, streams and ponds by the cleaning of equipment or the disposal of wastes.

## **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

## **ENVIRONMENTAL PRECAUTIONS**

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning equipment.

DO NOT APPLY BY AIR.

## **FIRST AID INSTRUCTIONS FOR ANTHEM C SURFACTANT**

**IN CASE OF EYE CONTACT:** Flush eyes IMMEDIATELY with flowing water for at least 15 minutes and consult a physician if irritation develops.

**IN CASE OF SKIN CONTACT:** Wash with soap and water. Remove contaminated clothing and launder before reuse. Consult a physician if irritation develops.

**IF SWALLOWED:** Give water or milk. DO NOT INDUCE VOMITING. Consult a physician IMMEDIATELY or call a poison control centre.

**IF INHALED:** Remove person to fresh air. Assist breathing if necessary. Consult a physician IMMEDIATELY or call a poison control centre.

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

## **STORAGE**

1. Store in original tightly-closed container and do not allow water to be introduced to this container.
2. Do not ship or store near food, feed, seed or fertilizers.
3. Store product in cool, dry, locked, well ventilated area without floor drain.
4. Herbicides should be shipped or stored separately from other pesticides to avoid cross contamination.
5. Product must be stored at temperatures above 5°C.

## **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 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 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 a control product under unsafe conditions.

## **NOTICE TO BUYER**

Seller's guarantee shall be limited to the terms set out on the label and subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product, and accepts the product on that condition.

22-OCT-2003

GROUP	2	HERBICIDE
-------	---	-----------

GROUP	4	HERBICIDE
-------	---	-----------

**ANTHEM™  
HERBICIDE TANK MIX**

**FOR SALE FOR USE IN ALBERTA, SASKATCHEWAN AND MANITOBA**

**ANTHEM Herbicide Tank Mix provides control and suppression of listed grass and broadleaf weeds in spring wheat and Kyle, Plenty, Avonlea and Morse durum wheat in the brown and dark brown soils of Alberta, Saskatchewan and Manitoba with organic matter less than 4%.**

**COMMERCIAL**

**WARNING**  **POISON**  
**SKIN IRRITANT**

**Anthem Herbicide Tank Mix contains the following:**

**Anthem A Herbicide:**

**GUARANTEE:** Sulfosulfuron 75.0%

REGISTRATION NO. 26268 PEST CONTROL PRODUCTS ACT

**Anthem B Herbicide:**

**GUARANTEE:** 2,4-D, (present as iso-octyl ester) 658 g /L

REGISTRATION NO. 26267 PEST CONTROL PRODUCTS ACT

**Anthem C Surfactant:**

**GUARANTEE:** Surfactant blend 50%

Solvent (petroleum hydrocarbons) 50%

REGISTRATION NO. 26269 PEST CONTROL PRODUCTS ACT

**READ THE LABELS AND BOOKLET BEFORE USING**

Read NOTICE before buying or using. If NOTICE terms are not acceptable, return at once unopened.

REFORMULATION OR REPACKAGING IS PROHIBITED.

**In case of emergency involving these products, Call Collect, day or night, (314) 694-4000.**

Net Contents: Anthem A Herbicide 2 x 216 g

Anthem B Herbicide 10 L

Anthem C Surfactant 2 x 4 L

Notification Change

**Monsanto Canada Inc.** 900 - One Research Road  
~~67 Scurfield Blvd.~~  
~~Winnipeg, MB R3Y 1G4~~ Winnipeg, MB R3T 6E3

Anthem is a trademark of Monsanto Company (USA). Monsanto Canada Inc. - Licensee.

## **PRECAUTIONS**

### **KEEP OUT OF REACH OF CHILDREN.**

Do not take internally. Harmful if swallowed or absorbed through the skin.

Skin irritant. Avoid inhalation of vapour or spray mist, and contact with eyes, skin or clothing.

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., contact 1-866-375-4648 or [www.cropro.org/](http://www.cropro.org/).

## **FIRST AID FOR ANTHEM HERBICIDE TANK MIX:**

**Consult individual container labels for FIRST AID instructions for each component.**

**IF IN EYES**, IMMEDIATELY flush with water for 10-15 minutes. Contact a physician if irritation persists.

**IF ON SKIN**, remove contaminated clothing and wash skin with soap and water. Contact a physician if irritation persists. Launder clothing before re-use.

**IF SWALLOWED**, drink one or two glasses of water and induce vomiting by touching back of throat with finger. DO NOT give anything by mouth to an unconscious person. Consult a physician or poison control centre IMMEDIATELY.

**IF INHALED**, remove individual to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention or contact a poison control centre IMMEDIATELY.

Take containers, labels or product names and Pest Control Product Registration Numbers with you when seeking medical attention.

## **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

## **PROTECTIVE CLOTHING AND EQUIPMENT**

**When handling the individual concentrate (during mixing and loading):** wear long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes, and protective eye wear (face shield or safety glasses). Coveralls or a chemical-resistant apron should also be worn when open pouring components during mixing. Rinse gloves before removal.

When handling the dilute spray solution **(during application, or repairing or cleaning equipment)**, wear a long-sleeved shirt, long pants, chemical resistant gloves, socks and shoes. Rinse gloves before removal.

Gloves are not required during application when applicator is in an enclosed tractor.

## **OPERATOR USE PRECAUTIONS**

- Wear freshly laundered clothing and clean protective equipment daily.
- Rinse gloves before removal.
- Wash thoroughly with soap and water after handling the tank-mix solution. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- If tank-mix solution 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 herbicide tank-mix solution.
- After using this tank-mix solution, 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 clothing and personal protective equipment separate from household laundry.
- After work, remove all clothing and shower using soap and water.

## **ENVIRONMENTAL HAZARDS**

Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters.

Maintain a buffer zone of 30 m between the last spray swath and the edge of sensitive areas such as shelter belts and woodlots. To protect aquatic habitats, a buffer zone of 6 m should be observed between the last swath and the edge of sensitive areas such as wetlands or ponds.

## **STORAGE AND DISPOSAL**

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

### **STORAGE**

Store under cool, dry conditions (between 5° and 50° C). Do not store under moist conditions. Keep Anthem A Herbicide pouch **TIGHTLY** sealed to prevent moisture from damaging any unused product. Do not store near or in the same room as seeds, feeds or fertilizers. Keep away from fire or open flame, and other sources of heat.

### **DISPOSAL**

Anthem A Herbicide:

1. Thoroughly empty the contents of the container into the application device.
2. Make the empty container unsuitable for further use.
3. Dispose of the container in accordance with provincial requirements.

Anthem B Herbicide and Anthem C Surfactant:

Do not reuse container for any purpose. These are recyclable containers, and are 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 containers to the collection site:

1. Triple- or pressure-rinse the empty containers. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed containers unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For Anthem A Herbicide, Anthem B Herbicide and Anthem C Surfactant:

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.

Wastes resulting from the use of this tank mix that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or, in accordance with provincial regulations, DILUTED AND SPRAYED ON SUMMERFALLOW OR A WHEAT FIELD.

Emptied foil pouch and plastic jugs retain vapor and product residue. Observe all labeled safeguards until containers are destroyed.

#### **NOTICE TO BUYER**

Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

#### **NOTICE TO USER**

This control product is to be used only in accordance with the directions on this label. It is an offence under the Pest Control Products Act to use a control product under unsafe conditions.

### **GENERAL INFORMATION**

#### **APPLICATION EQUIPMENT**

**DO NOT APPLY BY AIR.**

This tank mix must be applied through ground application equipment only. Calibrate spray equipment before use. Thorough coverage is necessary to provide good weed control. Use equipment which is capable of continuous and vigorous tank agitation. When tank is full, the agitation system should be capable of creating a rippling or rolling action on the liquid surface.

Apply Anthem Herbicide Tank Mix uniformly with properly calibrated ground equipment in 100 liters of water per hectare as a broadcast spray unless otherwise specified. Select spray volumes that ensure thorough and uniform weed coverage. Choose nozzles which provide optimum spray distribution and coverage at the appropriate spray pressure. Do not use flood jet nozzles or controlled droplet application equipment. Do not apply Anthem Herbicide Tank Mix under conditions where uniform coverage at label rates cannot be obtained. Avoid overlapping. Shut off spray boom while starting, turning, slowing or stopping to prevent crop injury from excess application.

Thoroughly clean application equipment immediately after Anthem Herbicide Tank Mix use and prior to spraying a crop other than spring wheat. Prepare a tank cleaning solution which consists of a 1 percent solution of household ammonia (one litre of ammonia for every 100 litres of water). Use sufficient cleaning solution to thoroughly rinse all surfaces and to flush all hoses. Repeat the procedure with the ammonia solution. Complete the cleaning process by rinsing with clean water. **DISPOSE OF ANY RINSATE BY SPRAYING IN A WASTE AREA OR ON THE TREATED FIELD.**

Do not apply this tank mix through any type of irrigation system.

Do not spray if there is a forecast for rain during or soon after application.

## **ATTENTION**

**AVOID DRIFT.** Care must be used when applying this tank mix to prevent injury to desirable plants and crops. Do not allow the herbicide tank mix solution to mist, drift, or splash onto desirable vegetation or soil areas where sensitive crops will be planted since minute quantities of this tank mix can cause severe damage or destruction to plants on which treatment was not intended. Avoid spray or vapour drift onto susceptible plants such as grapes, tomatoes, tobacco, sugarbeets, sunflowers, beans, turnips, cauliflower, cabbages, alfalfa, clover, peas, potatoes, ornamental crops or other desirable vegetation. Do not spray when there is any danger of wind, or on exceptionally hot days over 27° C. The likelihood of injury occurring from the use of this tank mix is greatest when winds are gusty or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. Drift from spray may be reduced by using high volume sprays under low pressure, coarse sprays, and drop nozzles. Avoid applying at excessive speed or pressure. Do not use in greenhouses. Apply only in wind conditions in compliance with local and/or provincial regulations.

Anthem A Herbicide is an ALS inhibitor and thus rapidly inhibits the growth of susceptible weeds. However, typical symptoms (discoloration) of dying weeds may not be noticeable for 1 to 3 weeks after application, depending upon growing conditions and weed susceptibility. Degree of control and duration of effect depend on weed sensitivity, weed size, growing conditions, and spray coverage.

Prior to using Anthem Herbicide Tank Mix, careful consideration should be given to crop rotation plans. Crops other than those listed in the “**ROTATIONAL CROP INFORMATION**” section can be sensitive to low concentrations of Anthem Herbicide in the soil. The degradation of Anthem Herbicide Tank Mix in soil is affected by rainfall, soil temperature and soil pH.



Refer to the “**ROTATIONAL CROP INFORMATION**” section of this label to plan your Anthem Herbicide Tank Mix use and crop rotations before crop planting.

Do not allow spray or spray mist to drift onto adjacent sensitive crops or onto land which will be rotated to sensitive crops in the future (see “**ROTATIONAL CROP INFORMATION**” section).

### **PRE-HARVEST INTERVALS**

- Do not permit lactating dairy cattle to graze fields within 7 days of application.
- Do not harvest forage or cut for hay within 30 days of application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.

### **MIXING INSTRUCTIONS**

Thoroughly clean equipment prior to mixing spray solution.

Fill the spray tank to about three-fourths of the recommended volume. Slowly add the contents of the Anthem A Herbicide pouches to the spray tank while maintaining agitation. Add the contents of Anthem B Herbicide and then Anthem C Surfactant containers. Complete the filling process while maintaining continuous agitation. Maintain an air gap during filling and remove the hose from the mixing tank immediately after filling to avoid siphoning back into the carrier source.

The spray solution should be applied immediately and if spraying is interrupted, sufficient agitation must be conducted to completely resuspend any precipitated product. This tank-mix spray solution will treat 16 ha (40 acres).

### **WEEDS CONTROLLED**

#### **Grassy Weed Species**

wild oat  
foxtail barley

#### **Broadleaf Weed Species**

common chickweed  
wild mustard  
red root pigweed  
stinkweed  
cleavers  
volunteer canola\*  
lamb's-quarters  
wild buckwheat  
dandelion

storksbill  
narrowleaf hawksbeard  
kochia  
green smartweed/ladysthumb  
perennial sowthistle

\* including glyphosate tolerant canola i.e., Roundup Ready® canola and imazethapyr tolerant canola i.e. Clearfield® canola

## **WEEDS SUPPRESSED**

green foxtail  
barnyard grass  
quackgrass

## **USE INSTRUCTIONS**

### **Postemergent Application in Spring and Kyle, Plenty, Avonlea and Morse Durum Wheat**

Anthem Herbicide Tank Mix may be applied only once per growing season. Best control is obtained when soil moisture is adequate to support vigorous wheat and weed growth. Apply this tank-mix before the emergence of the fourth tiller of wheat and after weeds have emerged. For control of wild oats, apply up to the 6 leaf stage and no later than the 3 tiller stage. For optimum performance and yield response apply prior to tillering of wild oats. For annual broadleaves, seedling weeds are controlled much easier than larger weeds. Perennial weeds should be treated prior to the flower stage and during a period of active growth.

Do not apply in spring wheat underseeded to legumes. There might be a slight reduction in control of wild oats and foxtail barley when using this tank mix.

## **ROTATIONAL CROP INFORMATION**

The risk of injury to rotational crops is dependant on a number of factors including: soil pH, sensitivity of rotational crop species, soil temperature, rainfall levels and intervals, and the re-cropping interval. Anthem Herbicide degradation is generally slower where there is low soil temperature, low soil moisture and/or high soil pH.

Following a droughty cropping season, crops exposed to saturated soils for a period of time may exhibit injury symptoms.

The additive effect of soil residues from the use of Anthem Herbicide Tank Mix and Group 2 herbicides (with cropping restrictions) on the same land has not been determined. Crop rotation guidelines and minimum rotation intervals are not known when using Group 2 herbicides (with cropping restrictions) the season prior to the use of Anthem Herbicide Tank Mix and injury to rotational crops other than wheat and imazethapyr tolerant canola i.e. Clearfield® canola may occur. Under these conditions, a field bioassay should be conducted the year prior to growing the crop of interest to confirm crop safety.

Good agronomic practices such as having adequate crop fertility should always be followed.

When treated with Anthem Herbicide Tank Mix wheat fields may be rotated to the following crops the year after treatment: all wheat varieties including durum, and canola (imazethapyr tolerant canola i.e. Clearfield® canola) only.

In the second year after treatment (22 months after application), the following crops may be planted: wheat, durum wheat, barley, canola, peas, or flax. In areas where fields have been affected by extreme drought, or drought conditions and high soil pH (pH 7.5 and greater), between application and soil freeze up, injury to crops other than wheat or imazethapyr tolerant canola i.e. Clearfield canola may be observed within the recommended plantback timing interval. **FOR FIELDS HAVING THESE CONDITIONS, AS LISTED ABOVE, DO NOT PLANT CANOLA, BARLEY, PEAS AND FLAX FOR AT LEAST 34 MONTHS AFTER APPLICATION. FOR CROPS NOT LISTED ABOVE, A FIELD BIOASSAY MUST BE CONDUCTED THE YEAR PRIOR TO GROWING THE CROP OF INTEREST TO CONFIRM CROP SAFETY.**

### **FIELD BIOASSAY**

Select a representative area or areas of the field previously treated with Anthem Herbicide Tank Mix to plant your bioassay crop(s). Be sure to consider factors such as size of field, soil texture, drainage and turn-around areas when selecting the site(s) that are most representative of the conditions in the field. On large fields, more than one site may be needed in order to obtain reliable results. Plant the test strips perpendicular to the direction in which the field was sprayed. The strips should be long enough to cross the width of several spray swaths. Large test strip areas are more reliable than small ones. Use standard tillage and seeding equipment to plant the bioassay. Prepare a seed bed and plant the crops and varieties you want the option of growing the following year. It is important to use the same planting time, conditions, techniques and cultural practices you normally use to plant and grow the bioassay crop(s). Also, plant into an adjacent area not treated with Anthem Herbicide Tank Mix to use as a comparison. As the crop(s) emerges and grows, examine these key points in Anthem Herbicide Tank Mix - treated and non-treated areas:

- crop stand
- root development
- rate of growth
- plant colour and vigour
- yield

Allow the bioassay crop(s) to grow to maturity while making your observations. Do not overspray the test strips with herbicides that may damage the bioassay crop(s). If the bioassay indicates that Anthem Herbicide Tank Mix residues are still present, continue cropping only to those crops listed on the label, and do not rotate to other crops until bioassay results indicate that susceptible crops are growing normally. **DO NOT ROTATE TO OTHER CROPS UNTIL BIOASSAY INDICATES NORMAL GROWTH WITH NO YIELD REDUCTIONS.** Failure to follow the recropping guidelines could result in injury to seeded crop(s).

## **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, Anthem Herbicide Tank Mix is considered as a Group 2 and Group 4 herbicide. Any weed population may contain plants naturally resistant to Anthem Herbicide Tank Mix and other Group 2 or Group 4 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Anthem Herbicide Tank Mix or other Group 2 or Group 4 herbicides.

To delay herbicide resistance:

- Avoid the exclusive, repeated use of Anthem Herbicide Tank Mix or other herbicides in the same herbicide groups.
- Rotate with herbicides from a different herbicide group that control the same weeds as Anthem Herbicide Tank Mix.
- Use tank-mixtures with herbicides from a different group when such a use is permitted.
- Integrate tillage or other mechanical and cultural control methods into weed control programs whenever practical.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Keep accurate records of crop rotations and herbicides used for each of your fields.

For further information, contact your local Monsanto representative.

\*\*\*\*\*

This label transcript service is offered by the Pest Management Regulatory Agency to provide efficient searching for label information. This service and this information do not replace the official hard-copy label. The PMRA does not provide any guarantee or assurance that the information obtained through this service is accurate, current or correct, and is therefore not liable for any loss resulting, directly or indirectly, from reliance upon this service.