| GROUP | 8 | HERBICIDE |
|---|---|---|

# Eptam® 8-E

**Emulsifiable Liquid**

**Selective Herbicide for Use in Mineral Soils**

## COMMERCIAL

GUARANTEE: EPTC ..... 800 grams per litre

**CAUTION**  **POISON**

**READ LABEL AND ATTACHED BOOKLET BEFORE USING**

# PRECAUTIONS

## KEEP OUT OF REACH OF CHILDREN.

**PRECAUTIONS**

**HARMFUL IF SWALLOWED.** Avoid contact with skin, eyes and clothing. Avoid breathing spray mist. When handling, wear eye protection, rubber gloves and fresh protective clothing. Wash skin thoroughly with soap and water after use. Avoid contamination of food and feed. Do not contaminate irrigation water or water used for domestic purposes. Keep container closed when not in use.

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 U.S., contact 1-866-375-4648 or www.cropro.org.

**FIRST AID**

If known exposure occurs or is suspected, **IMMEDIATELY** initiate the recommended procedures below. If further treatment is required, contact a poison control centre, a physician, or the nearest hospital. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**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 SWALLOWED: IMMEDIATELY** give several glasses of water but **do not** induce vomiting. If vomiting does occur, give fluids again. Have a physician determine if condition of patient will permit evacuation of stomach. Do not give anything by mouth to an unconscious or convulsing person.

**IF IN EYES: IMMEDIATELY** flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart during flushing to ensure rinsing of the entire surface of the eye and lids with water. Get medical attention **IMMEDIATELY**.

**IF ON SKIN: IMMEDIATELY** flush with large amounts of running water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse.

**IF INHALED: IMMEDIATELY** move to fresh air. Get medical attention if respiratory irritation occurs or if breathing becomes difficult.

**TOXICOLOGICAL INFORMATION:** Treat Symptomatically.

**NOTICE TO USER**

This control product is to be used only in accordance with the directions on this label. It is an offense 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.

**NET CONTENTS: 10 L, 110 L, 415 L, BULK**

REGISTRATION NO.11284
PEST CONTROL PRODUCTS ACT

Gowan® CANADA

Gowan Company LLC
370 S. Main Street
P.O. Box 5569
Yuma, AZ 85366-5569

## STORAGE

Keep container closed when not in use. Do not store near food, feed, seeds or fertilizers. Can be stored at temperatures as low as minus 45°C.

## SPILL CLEANUP

Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag. Contact Gowan Co. 1-800-424-9300 for further information.

For spills and leaks; contain the liquid with dikes of inert material (soil, clay, kitty litter etc.). Absorb the spill onto inert material and shovel into a sealable waste container.

- On hard surfaces - sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand
- On soil - remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste including scrub brush 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.

## DECONTAMINATION AND DISPOSAL:

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 DISPOSAL OF PLASTIC JUGS**:
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.

If the container is not being refilled, refer to the section "FOR DISPOSAL OF PLASTIC JUGS".

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.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING***
***CALL 1-800-327-8633 (FASTMED)***

## PRODUCT INFORMATION

EPTAM 8-E Herbicide is a selective herbicide which is mixed (incorporated) in the soil for control of weeds listed on this label. EPTAM 8-E Herbicide controls weeds by interfering with normal germination and seedling development. It does not control established weeds. All weed growth and crop stubble should be thoroughly worked into the soil before treatment.

## DIRECTIONS FOR USE

EPTAM 8-E Herbicide is recommended for use on mineral soils only.

EPTAM 8-E Herbicide should be used only for recommended purposes and at recommended rates. (DO NOT OVERDOSE).

Applied according to directions and under normal growing conditions, EPTAM 8-E Herbicide will not harm the treated crop. However, during germination and early stages of growth, unusually cold and wet or hot and dry weather, insect, nematode, or plant disease attack, the use of certain soil-applied systemic insecticides, highly saline or alkaline soil conditions, improperly placed fertilizers or soil insecticides may create abnormal conditions that weaken crop seedlings. EPTAM 8-E Herbicide used under these abnormal conditions could result in crop injury.

When applied according to directions and under conditions for normal crop growth, no harmful residues should remain beyond harvest.

- Do not tank mix EPTAM 8-E Herbicide with insecticides or fungicides unless compatibility has been tested prior to use.
- Do not apply prior to pre-irrigation.
- DO NOT APPLY BY AIR.

## WEEDS CONTROLLED

EPTAM 8-E Herbicide will not control established weeds.

| | | TANK MIXES | | |
|---|---|---|---|---|
| | ALONE | SENCOR/ LEXONE | TREFLAN EC/ RIVAL EC | EDGE DF |
| **Annual Grasses** | | | | |
| Annual Blue Grass | Y | Y | N | N |
| Annual Rye Grass (Italian Rye Grass) | Y | Y | N | N |
| Barnyard Grass (Water grass) | Y | Y | Y | Y |
| Crab Grass | Y | Y | Y | Y |
| Foxtails (Green and Yellow) | Y | Y | Y | Y |
| Giant Foxtail | N | Y | N | N |
| Goose Grass | Y | Y | N | N |
| Volunteer Grains (Barley, Oats, Wheat) | Y | Y | N | N |
| Wild Oats | Y | Y | N | N |
| Witch Grass | Y | Y | N | N |
| Fall Panicum | Y | Y | N | N |
| Cheat Grass | N | Y | N | N |
| **Annual Broadleaf Weeds** | | | | |
| Common Chickweed | Y* | Y | N | N |
| Corn Spurry | Y* | Y | N | N |
| Hairy Nightshade** | Y* | Y | N | N |
| Henbit (Deadnettle) | Y* | Y | N | N |
| Lamb's-quarters | Y* | Y | Y | Y |
| Pigweed (Prostrate, Redroot, Tumble) | Y* | Y | Y | Y |
| Purslane | Y* | Y | N | N |
| Nettleleaf Goosefoot | Y* | Y | N | N |
| Ragweed | N | Y | N | N |
| Wild Mustard | N | Y | N | N |
| Lady's-thumb | N | Y | N | N |
| Velvetleaf | N | Y | N | N |
| Common Yellow (Wood-sorrel) | N | Y | N | N |
| Jimsonweed | N | Y | N | N |
| Prickly Mallow | N | Y | N | N |
| Shepherd's-purse | N | Y | N | N |
| Green Smartweed | N | Y | N | N |
| Russian-thistle | N | Y | N | N |
| Seedling Dandelion | N | Y | N | N |
| **Perennial Weeds *** ** | | | | |
| Quack Grass (Couch Grass, Twitch Grass)**** | Y | N | N | N |
| Yellow Nutsedge | Y | N | N | N |

* These annual broadleaf weeds will be controlled by EPTAM alone, only if treatment is made when conditions are favourable for germination and growth.

** Western Canada only.

*** Perennial weeds must be turned under and chopped up thoroughly prior to treatment.

**** For the control of quack grass the disc must be set to cut 15 centimetres deep and the higher rates (7 - 8.5 litres per hectare) of EPTAM 8-E Herbicide must be used. The underground rhizomes of quack grass must be cut up thoroughly so that four or less nodes remain on a strand. Consult the use directions for crops on which these higher rates may be used.

## APPLICATION RATES

These recommendations are given as broadcast (overall) rates of EPTAM 8-E Herbicide per hectare. For band treatment, use proportionately less material per hectare depending upon the width of the band to be treated and the crop row spacing. Do not use band treatment on rocky ground because thorough incorporation is not possible.

## ALFALFA

**ALFALFA AND BIRDSFOOT TREFOIL (new seedlings)** - Before planting, apply and incorporate 4.25 litres EPTAM 8-E Herbicide per hectare. Temporary crop stunting and sealing of first leaves will occur in legumes if conditions for germination and growth are not optimum. Do not use EPTAM 8-E Herbicide if a grass or grain nurse crop is to be planted with the legume.

## BEANS

**BEANS, SNAP COMMON OR DRY COMMON (including red kidney beans)** - Do not use EPTAM 8-E Herbicide on Adzuki (Japanese) beans or crop cowpeas (blackeye peas, blackeye beans), soybeans, lima beans or other flat-podded beans, except Romano, fababeans or mungbeans. Before planting, apply and incorporate 4.25 to 5.5 litres EPTAM 8-E Herbicide per hectare. If dry weather prevails at time of treatment, delay seeding of beans seven to ten days. For dense nut grass stands and for quack grass, apply 5.5 litres EPTAM 8-E Herbicide per hectare.

Rotary hoe lightly during or shortly after emergence of the beans to break any crust which occurs. Supplementary row cultivation will be required to improve quack grass control.

**NOTE:** Under extreme weather conditions, such as cold temperatures and wet soils or higher temperatures and dry soils, stunting may occur.

**BEANS, DRY: COMMON (WHITE AND RED KIDNEY ONLY): EPTAM 8-E Herbicide/Trifluralin(TREFLAN EC, RIVAL EC) or EPTAM 8-E Herbicide/Ethalfluralin (EDGE DF)**- The combination of **EPTAM 8-E Herbicide/Trifluralin** or **EPTAM 8-E Herbicide/Ethalfluralin** is recommended for the control of barnyard grass, crabgrass, foxtails (green and yellow), pigweeds (redroot and prostrate) and lamb's quarters on mineral soils. Use of higher than recommended rates may result in crop injury. Before planting, apply and incorporate 3.0 litres of EPTAM 8-E Herbicide in combination with 1.1 litres of TREFLAN EC or 1.2 litres of RIVAL EC or 1.2 kg of EDGE DF per hectare. Follow the mixing, application and incorporation directions specified on this label. Observe all precautions and limitations on labelling of all products.

**BEANS, Otebo:** Do not use EPTAM 8-E Herbicide on Adzuki (Japanese) beans or crop cowpeas (blackeye peas, blackeye beans), soybeans, lima beans or other flat-podded beans. Before planting, apply and incorporate 4.25 to 5.5 litres EPTAM 8-E Herbicide per hectare. If dry weather prevails at time of treatment, delay seeding of beans seven to ten days. For dense nut grass stands and for quack grass, apply 5.5 litres EPTAM 8-E Herbicide per hectare.

The **DIRECTIONS FOR USE** for control of annual grasses and nutsedge in Otebo Beans were developed by persons other than Gowan Company and accepted for and registration by the Pest Management Regulatory Agency under the URMULE program. Gowan Company itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) in connection with the use described for weed control in Otebo Beans.

Accordingly, the Buyer and User assume all liability arising, and agree to hold Gowan Company harmless from any claims based on efficacy and/or phytotoxicity in connection with the use described for weed control in Otebo Beans.

Rotary hoe lightly during or shortly after emergence of the beans to break any crust which occurs. Supplementary row cultivation will be required to improve quack grass control.

**NOTE:** Under extreme weather conditions, such as cold temperatures and wet soils or higher temperatures and dry soils, stunting may occur.

**CICERMILKVETCH AND SWEET CLOVER – (For seed production)** Before planting, apply and incorporate 4.25 litres EPTAM 8-E per hectare.

## FLAX

Seed shallow, no deeper than 3.0 centimetres into a firm seedbed. Reduced stands and crop damage may occur with deep seeding.

**FLAX - SPRING TREATMENT** - Apply and incorporate 3.5 to 4.25 litres EPTAM 8-E Herbicide per hectare just before planting. Use the lower rate on light, sandy soils and the higher rate on heavier textured soils. Do not use on soils with less than 3% organic matter.

**FLAX (Do not use on low linolenic acid varieties) - SPRING TREATMENT: EPTAM 8-E Herbicide/Trifluralin TREFLAN EC, RIVAL EC)** - The combination of EPTAM 8-E Herbicide/trifluralin is recommended for the control of barnyard grass, wild oats, green foxtails, redroot pigweed and lamb's quarters on mineral soils. Use of higher than recommended rates may result in crop injury. Before planting, apply and incorporate 3.0 litres of EPTAM 8-E Herbicide in combination with 1.1 litres of TREFLAN EC or 1.2 litres of RIVAL EC per hectare.

**Note:** The tank mix combination of EPTAM 8-E Herbicide/Trifluralin (TREFLAN EC, RIVAL EC) may result in reduced crop stand and/or crop damage, however yield should not be affected.

**Note:** Seed shallow, no deeper than 3.0 centimeters into a firm seedbed. Reduced stands and crop damage may occur with deep seeding. Observe all precautions and limitations on labelling of all products.

**FLAX - FALL TREATMENT (Western Canada Only) -** Apply and incorporate 4.25 to 5.5 litres EPTAM 8-E Herbicide per hectare in late fall before the ground freezes. Use the lower rate on light sandy soils and the higher rate on heavier textured soils. The following spring, prior to seeding, cultivate lightly to destroy any surviving winter germinating seeds. Dry fertilizer may also be impregnated with EPTAM 8-E Herbicide and applied in the fall for use on flax (see Appendix II on this label giving directions for impregnation and use).

## SUNFLOWERS

**SUNFLOWER - SPRING TREATMENT** - Before planting, apply and incorporate 4.25 litres EPTAM 8-E Herbicide per hectare. Do not use on light, sandy soils with less than 3% organic matter.

**SUNFLOWER - FALL TREATMENT (Prairie Provinces Only)** - Apply and incorporate 4.25 to 5.5 litres EPTAM 8-E Herbicide per hectare in the late fall before the ground freezes. The following spring prior to seeding cultivate lightly to destroy any surviving winter germinating seeds. Use the lower rate on light sandy soils and the higher rate on heavier textures soils.

## SUGAR BEETS

**SUGAR BEETS - SPRINKLER IRRIGATION WATER** - Meter 2.75 to 4.25 litres EPTAM 8-E Herbicide into the first irrigation water immediately after clean cultivation. The best weed control can be obtained by using a fall application of EPTAM 8-E Herbicide or a spring application of RO-NEET® prior to planting, followed by the EPTAM 8-E Herbicide irrigation application. (Consult the RO-NEET label for RO-NEET application rate and recommendations.)

**SUGAR BEETS - FALL TREATMENT (Recommended in Alberta and Manitoba Only)** - Apply and incorporate 4.25 to 5.5 litres EPTAM 8-E Herbicide per hectare (use 5.5 litres in Alberta) in the late fall before the ground freezes. Mix thoroughly into the top 7.5 to 10 centimetres of soil. When a disc is used for incorporation, disc twice, the second time at right angles to the first. In Manitoba, use the lower rate on lighter (sandy) soils; use the higher rate on medium to heavy textured soils. Use the higher rate in Alberta.

The following spring, prior to seeding, cultivate lightly using a harrow or other shallow cultivator to destroy any surviving winter-germinating seeds. Keep spring tillage at a minimum to conserve moisture.

## TURNIPS (Rutabagas)

**(Do not use in Eastern Canada)**. Six to ten days before planting, apply and incorporate 3.25 litres EPTAM 8-E Herbicide per hectare on light sandy soils or 4.25 litres on medium to heavy textured soils. If dry weather prevails at time of treatment, do not use EPTAM 8-E Herbicide on sand and use the lower rate on medium and heavy textured soils.

## POTATOES (IRISH)

**POTATOES - FALL TREATMENT (Prairie Provinces Only)** - Apply and incorporate 5.5 to 8.5 litres EPTAM 8-E Herbicide per hectare in the late fall before the ground freezes. The following spring prior to seeding cultivate lightly to destroy any surviving winter germinating seeds. For quack grass use 7 to 8.5 litres per hectare. Consult notes for perennial weed control.

**POTATOES - BEFORE PLANTING** - Apply and incorporate 4.25 to 8.5 litres EPTAM 8-E Herbicide per hectare. For dense nut grass stands and quack grass, use 7 to 8.5 litres per hectare.

**POTATOES - BEFORE PLANTING: EPTAM 8-E Herbicide/Metribuzin (LEXONE, SENCOR)* TANK MIX COMBINATION -** A tank mix combination of EPTAM 8-E Herbicide/Metribuzin (LEXONE, SENCOR), applied pre-plant and soil-incorporated, will give a broader spectrum of weed control than either product used separately. Please see precautions listed below.

Apply 4.25 to 5.5 litres EPTAM 8-E Herbicide per hectare in combination with Metribuzin (LEXONE, SENCOR) as follows,

**Metribuzin (LEXONE, SENCOR)**

| | Kilograms of Metribuzin (LEXONE, SENCOR) in 200 - 300 L of water per hectare | | |
|---|---|---|---|
| **SOIL TEXTURE*** | | **2 - 4% organic matter** | **Over 4% organic matter** |
| Medium Soils<br>(loam, silt loam,<br>silt sandy loam,<br>sandy clay loam) | LEXONE DF<br>SENCOR 75 DF<br>LEXONE L<br>SENCOR 500 F | 0.75 kg<br>0.75 kg<br>1.15 L<br>1.10 L | 1.0 kg<br>1.0 kg<br>1.6 L<br>1.5 L |
| Heavy Soils<br>(silty clay,<br>silty clay loam,<br>clay loam) | LEXONE DF<br>SENCOR 75 DF<br>LEXONE L<br>SENCOR 500 F | 1.0 kg<br>1.0 kg<br>1.6 L<br>1.5 L | 1.1 kg<br>1.1 kg<br>1.8 L<br>1.7 L |

* Do not use on sandy or coarse textured soils with less than 2% organic matter as crop injury may result.

**PRECAUTIONS**

Do not use on red-skinned or early potatoes, or on the varieties Belleisle or Tobique.

Do not use EPTAM 8-E Herbicide/Metribuzin on muck soil or subsequent crops may be injured. Do not use in Manitoba, Saskatchewan or Alberta, except under irrigated conditions in Southern Alberta.
Rotation crops such as onions, celery, peppers, cole crops, lettuce, spinach, sugar beets, table beets, turnips, pumpkin, squash, cucumbers, melons, tobacco and rapeseed are sensitive to EPTAM 8-E Herbicide/Metribuzin, and may be injured if planted in EPTAM 8-E Herbicide/Metribuzin treated soil both during the year of application and the following crop year.

Applications of EPTAM 8-E Herbicide/Metribuzin made at rates above those recommended may result in burning, yellowing or stunting of the crop. If heavy rains occur soon after application, plant injury may result, especially in poorly drained areas where water may stand for several days.

Uneven application such as swath overlapping, variable tractor speed, spraying on turns, etc. may result in crop injury and increase chance of injury to rotation crops.

Do not graze or feed forage from treated fields to livestock. Read both the EPTAM 8-E Herbicide and Metribuzin (LEXONE, SENCOR) labels carefully before using and observe all precautions and limitations on labelling of all products.

**POTATOES - DRAG-OFF (Come-up, Weeding Time)** - Apply and incorporate 4.25 to 8.5 litres EPTAM 8-E Herbicide per hectare. The field must first be "DRAGGED-OFF" followed by EPTAM 8-E Herbicide application and incorporation. Use spike-tooth harrows or cultivation equipment for incorporation.

**POTATOES - POST-EMERGENCE** - Apply and incorporate 4.25 to 5.5 litres EPTAM 8-E Herbicide per hectare at next to the last or at time of last cultivation. If soil surface is not dry and loose, cultivate before application. Do not apply within 45 days of harvest.

**POTATOES - SPRINKLER IRRIGATION WATER** - Meter 4.25 to 5.5 litres EPTAM 8-E Herbicide per hectare into the first irrigation water immediately after clean cultivation. The best weed control can be obtained by using one of the pre-plant (fall or spring) or pre-emergence (drag-off) EPTAM 8-E Herbicide applications, followed by the EPTAM 8-E Herbicide irrigation application. Do not apply within 45 days of harvest.

## MIXING AND APPLICATION

Pour the recommended amount of EPTAM 8-E Herbicide, and/or TREFLAN EC, RIVAL EC into the spray tank during the filling operations. For EPTAM 8-E Herbicide plus EDGE DF tank mix, pour the recommended amount of EDGE DF into the spray tank first followed by EPTAM 8-E Herbicide. Apply in 100 or more litres of water per hectare using a properly calibrated, low-pressure sprayer having good agitation. The soil should be well worked and dry enough to permit good soil mixing (incorporation). When applying the EPTAM 8E Herbicide/Metribuzin tank mix use 200 - 300 litres of water per hectare.

EPTAM 8-E Herbicide may be combined with fluid (solution, slurry or suspension) fertilizers, however, physical compatibility with these fluid fertilizers must be determined before combining in the spray tank. See Appendix 1 for directions for these combinations. Even though found to be compatible, constant agitation is necessary to keep EPTAM 8-E Herbicide evenly mixed with the fluid fertilizer.

## DRY FERTILIZER IMPREGNATION

EPTAM 8-E Herbicide may be impregnated on many dry bulk fertilizers and applied and incorporated in the soil before planting for the control of grass and broadleaf weeds.

**Recommended Dry Fertilizer Ingredients**

| | N | P | K |
|---|---|---|---|
| Ammonium sulfate | 21 | 0 | 0 |
| Diammonium phosphate | 18 | 46 | 0 |
| Potassium chloride | 0 | 0 | 60 |
| Potassium sulfate | 0 | 0 | 52 |
| Super-phosphate (single) | 0 | 20 | 0 |
| Triple super-phosphate | 0 | 46 | 0 |
| Urea | 45 | 0 | 0 |
| Ammonium phosphate-sulfate | 16 | 20 | 0 |
| 11-48-0 | 11 | 48 | 0 |

**NOTE:** K-Mag has been shown to be compatible with EPTAM 8-E Herbicide and is recommended for use.

Field results have shown that EPTAM 8-E Herbicide on bulk dry fertilizers gives weed control equal to EPTAM 8-E Herbicide applied as a spray in water or liquid fertilizer. Many dry bulk fertilizers (except nitrate fertilizers) may be impregnated with EPTAM 8-E Herbicide for use on registered crops, however, uniform distribution of the EPTAM 8-E Herbicide on fertilizer particles and uniform application are necessary to assure good results. **Limit use on dry fertilizer to spring applications on all crops and to fall applications on flax (Western Canada only).** See Appendix II for directions on impregnation and use.

## INCORPORATION DIRECTIONS

EPTAM 8-E Herbicide and EPTAM 8-E Herbicide/Metribuzin, EPTAM 8-E Herbicide/Trifluralin, EPTAM 8-E Herbicide/Ethalfluralin tank mixes must be incorporated into the soil immediately to prevent loss of the herbicide. Whenever possible, application and incorporation should be done in the same operation. The following equipment and recommended working depths are suggested for soil mixing (incorporation) before planting:

| TYPE OF EQUIPMENT | WORKING DEPTH* | MINIMUM SPEED |
|---|---|---|
| S Tyne (Danish) Cultivator ** | 10-15 cm | 8-13 km/hr |
| C Type Cultivator with overlapping sweeps ** | 10-15 cm | 9.5+ km/hr |
| Tandem Disks (max 45cm spacing between disks) *** | 10-15 cm | 6.5-9.5 km/hr |
| Power Driven Cultivator**** | 5-7.5 cm | ANY |

* Shallow incorporation with implements set to cut less than 5.0 centimetres may result in erratic weed control.
** Recommended for lighter soils in good tilth only
*** For more thorough mixing, (perennial weeds and in heavier soils) cross disk a second time at maximum 10 cm depth.
**** For control of shallow, annual weeds only.

## SPRINKLER IRRIGATION APPLICATION POST-PLANTING AND ESTABLISHED CROPS

Meter EPTAM 8-E Herbicide into the sprinkler irrigation water using a metering device that will introduce a constant flow into the water. For centre pivot, straight line and solid set sprinkler systems, meter the EPTAM 8-E Herbicide into the water during the entire period using sufficient water to penetrate to a depth of 7.5 to 10 centimetres. Time this EPTAM 8-E Herbicide application to ensure that proper penetration of the herbicide corresponds with the end of the irrigation period.

Flush the lines and then turn the water off promptly. Consult the "Directions For Use" section on this label for proper timing of application for each crop for which irrigation application is recommended. A diagram for water run applications can be found in Appendix III of this label.

Tailwater (run-off water) from sprinkler irrigation should be re-circulated or used only on other crops which are registered for this type of application.

- Do not apply this product through any other type of irrigation system.
- Do not apply when wind speed causes non-uniform distribution and/or favours drift beyond the area intended for treatment.
- Do not make sprinkler applications when wind velocities are over 8 km/h.
- Do not apply by irrigation if treated area is within 100 metres of residential areas and parks.
- To prevent accidental contamination of the water source when the pump stops, a shut-off device which will prevent backflow of the chemical must be employed.

## CULTURAL PRACTICES FOLLOWING APPLICATION

To obtain a maximum period of weed control, seeding should be done as soon as possible after application.

Since EPTAM 8-E Herbicide is not persistent in the soil, susceptible weeds germinating later during the growing season may not be controlled. Shallow cultivation or the use of post emergent herbicides may be required to control weeds that escape EPTAM 8-E Herbicide treatment or are not control by EPTAM 8-E Herbicide (i.e. tolerant broadleaves and non susceptible weed species). Cultivation should not exceed the depth of herbicide incorporation.

## RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, EPTAM 8-E Herbicide is a Group 8 herbicide. Any weed population may contain or develop plants naturally resistant to EPTAM 8-E Herbicide and other Group 8 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 EPTAM 8-E Herbicide or other Group 8 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 Gowan Company representatives at 1-800-883-1844 or at www.gowanco.com

**APPENDIX 1**
**EPTAM 8-E Herbicide with Fluid Fertilizer**

**PROCEDURE FOR TESTING THE COMPATIBILITY OF EPTAM 8-E Herbicide WITH FLUID FERTILIZERS.**

The following procedure is suggested for determining whether EPTAM 8-E Herbicide may be combined with a specific fluid fertilizer for spray tank application.

**Materials Required:**

1. EPTAM 8-E Herbicide
2. Fluid fertilizer to be used.
3. Adjuvant for fertilizer tank mix; Unite* or equivalent. The adjuvant that provides the best emulsification depends on the specific fertilizer under consideration.
4. Two one-litre, wide-mouth glass jars with lids or stoppers.
5. Graduated pipet or cylinder.
6. Measuring cup (250 mL).

**PROCEDURE:**

1. Pour 500 mL of the fluid fertilizer into each of the litre jars.
2. Add adjuvant to one of the jars and mix (see next rate table).
3. Add the EPTAM 8-E Herbicide to both jars (see next rate table).
4. Close both jars with lids or stoppers and mix the contents by turning the jars upside down ten times.
5. Inspect the surface and body of the mixtures;
   A) Immediately after completing the jar inversions,
   B) After allowing the jars to stand quietly for 30 minutes,
   C) And then again after turning the jars upside down ten times.

* Unite, Hopkins Agricultural Chemical Co., Madison, Wisconsin.

If a uniform mix cannot be made, the mixture should not be used. If either mixture remains uniform for 30 minutes, the combination may be used. Should either mixture separate after 30 minutes, but readily remix uniformly with ten jar inversions, the mixture can be used if adequate agitation is maintained in the tank. If the mixture with the adjuvant is satisfactory, but the one without adjuvant is not, be sure to use the adjuvant in the spray tank.
Add the adjuvant first to the fluid fertilizer at a rate of 375 mL per 100 litres of fluid fertilizer; foaming can be minimized by using moderate agitation.

Even though found to be compatible, constant agitation is necessary to keep the EPTAM 8-E Herbicide evenly mixed with the fluid fertilizer.

If non-dispersible oil, sludge or clumps form in the mixtures, the combination should not be used.

**Compatibility Test Table for EPTAM 8-E Herbicide and Adjuvant***
**with the Fluid Fertilizer**

| Litres of Fluid Fertilizer to be applied per Hectare | mL of EPTAM 8-E Herbicide** to be added to 500 mL of Fertilizer |
|---|---|
| L | mL |
| 100 | 25.0 |
| 150 | 17.0 |
| 200 | 12.5 |
| 250 | 10.0 |
| 300 | 8.5 |
| 400 | 6.5 |

* A typical adjuvant rate of use is 375 mL per 100L of fluid fertilizer. Two (2) millilitres of adjuvant should be added to 500 mL of fluid fertilizer in order to equal rate of 375 mL per 100 litres.

** Based on a rate of 5 litres of EPTAM 8-E Herbicide per hectare in the fluid fertilizer volumes indicated, adjust amount of pesticide proportionately to correspond with intended field rate (e.g. for field rate of 9.0 litres of EPTAM 8-E Herbicide in 250 litres fluid fertilizer per hectare, add 18 mL (9L/5L x 10mL) EPTAM 8-E Herbicide to each jar containing 500 mL of fluid fertilizer for compatibility testing purposes).

**APPENDIX II**

**EPTAM 8-E Herbicide Impregnation on Dry Bulk Fertilizers**

All EPTAM 8-E Herbicide supplementary literature instructions and label recommendations regarding rates per hectare, soil incorporation, application, cautions, general use precautions and other directions must be followed.

Advertising, promotion or sale of the pesticide-fertilizer mixture by the blender or dealer is subject to registration under the provisions of the Fertilizer Act. Regulations relating to dry bulk fertilizer blending, registration, labelling and application are the responsibility of the individual and/or company selling the fertilizer and EPTAM 8-E Herbicide mixture.

**CAUTION:** EPTAM 8-E Herbicide alone or in combination with other herbicides must not be impregnated on ammonium nitrate, sodium nitrate or potassium nitrate. Such mixtures may cause explosion and fire.

A minimum of 200 kilograms and a maximum of 800 kilograms of recommended ingredients impregnated with EPTAM 8-E Herbicide at the recommended rate must be applied per hectare.

For impregnating EPTAM 8-E Herbicide on dry fertilizers, use a closed rotary-drum mixer or a similar type of closed blender equipped with suitable spray equipment. The spray nozzle (or nozzles) should be positioned inside of the mixer to provide uniform spray coverage of the tumbling fertilizer. The EPTAM 8-E Herbicide should be sprayed uniformly onto the fertilizer using a fine spray pattern.

The physical properties of fertilizers vary, particularly in liquid absorptive capacity. When absorbitivity is sufficient, simple spray impregnation of the fertilizer with EPTAM 8-E Herbicide provides a satisfactory, dry mixture.

If the absorptive capacity is inadequate, use of a highly absorptive powder is required to provide a dry, free-flowing mixture. Microcel E (John-Manville Products Corp.) is the recommended absorbent powder. It should be added separately and uniformly to the prepared EPTAM 8-E Herbicide fertilizer mixture, in a quantity that is sufficient to provide a suitably free-flowing mixture. Generally less than 2% by weight of Microcel E is required.

The amount of EPTAM 8-E Herbicide actually required in the manufacture of individual fertilizer mixtures should be determined carefully for each production operation. This is necessary to ensure that the amount of EPTAM 8-E Herbicide actually contained in the mixture applied to the soil represents the correct rate of use. See rate chart below.

Bulk fertilizer impregnated with EPTAM 8-E Herbicide **should be applied immediately**, NOT STORED. All bulk containers must be tightly covered while the product is being transported and applied to reduce chances of EPTAM 8-E Herbicide loss via volatilization.

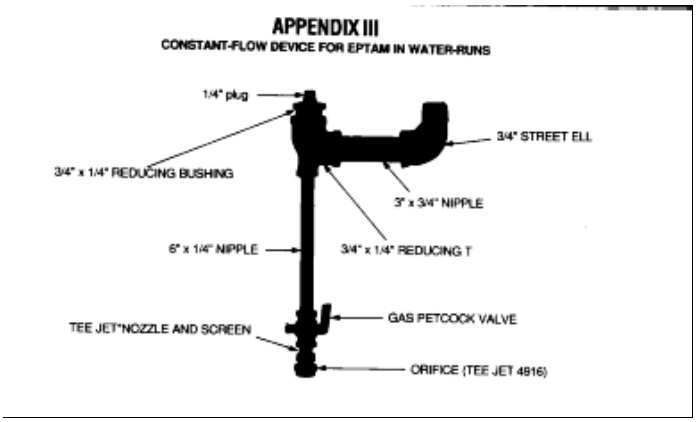
**Product Density 20°C:** typically 946 grams/litre
**Flashpoint:** 83°C (Setaflash closed cup)
**Viscosity:** Sprayable down to -30°C

**RATE CHART FOR THE IMPREGNATION OF DRY BULK FERTILIZERS WITH EPTAM 8-E Herbicide**

| | 3.5 L Per ha | 4.25 L Per ha | 5.5 L Per ha | 8.5 L Per ha |
|---|---|---|---|---|
| Fertilizer Rate Per Hectare | Litres/1,000 kg of Fertilizer | | | |
| 200 kg | 17.5 | 21.3 | 27.5 | 42.5 |
| 250 kg | 14.0 | 17.0 | 22.0 | 34.0 |
| 300 kg | 11.7 | 14.2 | 18.3 | 28.3 |
| 350 kg | 10.0 | 12.2 | 15.7 | 24.3 |
| 400 kg | 8.8 | 10.6 | 13.8 | 21.3 |
| 450 kg | 7.8 | 9.4 | 12.2 | 18.9 |
| 500 kg | 7.0 | 8.5 | 11.0 | 17.0 |
| 550 kg | 6.4 | 7.7 | 10.0 | 15.5 |
| 600 kg | 5.8 | 7.1 | 9.2 | 14.2 |
| 650 kg | 5.4 | 6.5 | 8.5 | 13.1 |
| 700 kg | 5.0 | 6.1 | 7.9 | 12.2 |
| 750 kg | 4.7 | 5.7 | 7.3 | 11.3 |
| 800 kg | 4.4 | 5.3 | 6.9 | 10.6 |

## APPENDIX III

**CONSTANT-FLOW DEVICE FOR EPTAM IN WATER-RUNS**




**FLOW RATES FOR VARIOUS Tee Jet* ORIFICES (4916)****

| | | | Approximate Time (hrs.) | |
|---|---|---|---|---|
| Tee Jet Orifice | mL Per Minute | Kilograms per hour | 4 Litres | 20 Litres |
| .008 | .89 | .050 | 74.92 | 374.6 |
| .009 | 1.48 | .084 | 45.04 | 225.2 |
| .010 | 2.96 | .168 | 22.52 | 112.6 |
| .012 | 3.7 | .211 | 18.00 | 90.0 |
| .014 | 7.0 | .399 | 9.52 | 47.6 |
| .015 | 7.9 | .450 | 8.44 | 42.2 |
| .016 | 8.9 | .507 | 7.48 | 37.4 |
| .018 | 12.6 | .718 | 5.28 | 26.4 |
| .020 | 15.7 | .895 | 4.24 | 21.2 |
| .022 | 20.7 | 1.18 | 3.24 | 16.2 |
| .024 | 24.4 | 1.39 | 2.72 | 13.6 |
| .026 | 32.5 | 1.85 | 2.04 | 10.2 |
| .028 | 37.6 | 2.14 | 1.76 | 8.8 |
| .030 | 41.4 | 2.36 | 1.60 | 8.0 |
| .032 | 44.4 | 2.53 | 1.52 | 7.6 |
| .034 | 50.3 | 2.86 | 1.32 | 6.6 |
| .035 | 54.7 | 3.12 | 1.24 | 6.2 |
| .037 | 65.2 | 3.71 | 1.04 | 5.2 |
| .039 | 75.4 | 4.30 | 0.88 | 4.4 |
| .041 | 85.8 | 4.89 | 0.76 | 3.8 |
| .043 | 94.8 | 5.40 | 0.72 | 3.6 |
| .045 | 105 | 5.99 | 0.64 | 3.2 |
| .047 | 115.4 | 6.58 | 0.56 | 2.8 |
| .049 | 125.8 | 7.17 | 0.52 | 2.6 |
| .051 | 133.2 | 7.59 | 0.50 | 2.5 |
| .053 | 143.5 | 8.18 | 0.48 | 2.4 |
| .054 | 148 | 8.44 | 0.44 | 2.2 |
| .055 | 158 | 9.01 | 0.42 | 2.1 |
| .057 | 167 | 9.52 | 0.40 | 2.0 |
| .059 | 185 | 10.55 | 0.36 | 1.80 |
| .061 | 191 | 10.89 | 0.35 | 1.74 |
| .063 | 200 | 11.41 | 0.32 | 1.6 |
| .065 | 212 | 12.09 | 0.31 | 1.56 |
| .067 | 223 | 12.72 | 0.30 | 1.48 |
| .070 | 240 | 13.69 | 0.28 | 1.40 |

* Registered trademark of Spraying Systems Co.

** Figures were taken at 16.8°C and are approximate. Be sure occasionally to measure flow in the field to make certain you have the correct orifice and because rates vary with temperature. (Flow on a 0.037 orifice increases from 65.1 mL at 16.8°C to 71.0 mL at 33.6°C.). Use a 300 mesh screen on orifice sizes below .014.

PMRA Approved: August 26, 2004