READ THE LABEL BEFORE USING

TORCH DS

BROADLEAF HERBICIDE

AGRICULTURAL

WARNING

POISON

REGISTRATION NO. 17675
PEST CONTROL PRODUCTS ACT

# **GUARANTEE:**

Bromoxynil Equivalent .... 450 gms per litre Present as esters of n-octanoic and n-butyric acid

Liquid Emulsifiable Concentrate

IN CASE OF EMERGENCY PHONE COLLECT (24 HOURS A DAY)416-634-2359

May and Baker Canada Ltd.
2000 Argentia Road
plaza 3,
Mississauga, Ontario
L5N 1V9

Net Contents: 10 litres

# PRECAUTIONS

Harmful if swallowed. Avoid contact with skin, eyes and clothing. Do not inhale fumes and avoid breathing spray mist.

KEEP OUT OF REACH OF CHILDREN.

Do not contaminate water used for irrigation or domestic purposes. Contamination of water may kill fish. Avoid spray drift. Clean sprayers thoroughly before using for other purposes.

FIRST AID: If the skin is contacted, wash with warm soapy water immediately. In case of eye contact flush immediately with water and obtain medical attention.

TOXICOLOGICAL INFORMATION: This product contains petroleum distillates. If ingested, do not induce vomiting. Give artificial respiration if necessary. Obtain medical attention immediately.

STORAGE: Store at temperatures above 0'C. Do not store near fertilizers, seed, insecticides, or fungicides. Store in tightly closed containers away from feeds, fertilizers, plants or foodstuffs.

DECONTAMINATION AND DISPOSAL: Do not reuse empty containers. Rinse the emptied container thoroughly and add the rinsings to the spray mixture in the tank. Follow provincial instructions for any required additional cleaning of the container prior to its disposal. Make the empty container unsuitable for further use. Dispose of the container in accordance with provincial requirements. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the regional office of Conservation and Protection, Environment Canada.

If container is damaged and/or contents spilled contact manufacturer for instructions. Wear protective clothing and impervious gloves before handling spills or damaged products. For spills do not allow product to spread. Prevent entry into ditches and waterways. Cover spill with inert sweeping compound such as dry sand, clay or sawdust and place contaminated material into an approved waste container. Place damaged container into approved waste containers and mark with contents.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate any body of water. Use caution to prevent spray, spray mist, or vapours from drifting off target. Spray drift may cause damage to crops or vegetation.

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.

## GENERAL INFORMATION

TORCH DS controls certain seedling broad leaf weeds including wild buckwheat, tartary buckwheat, lady's thumb, cow cockle, velvetleaf and Russian thistle in wheat, oats, barley, fall rye, triticale, flax, canary seed, corn and seedling grasses for seed (not underseeded to legumes).

TORCH DS is a post-emergent contact herbicide that may be used alone or tank-mixed with 2,4-D or MCPA to control certain annual broadleaf weeds in wheat or barley. In oats or flax it may be used alone or tank-mixed with MCPA.

TORCH DS is more effective when applied to young weeds in the seedling stage of growth. TORCH DS, applied as directed, controls weeds which deprive young crops of vital moisture and fertilizer, reduces contamination of grain with weed seeds and makes harvesting easier.

#### DIRECTIONS

# TORCH DS USED ALONE

## WEEDS CONTROLLED:

common groundsel
common ragweed

cow cockle (up to 4-leaf stage)
green smartweed
knawel
kochia
lady's thumb
lamb's quarters\*
night flowering catchfly

Russian thistle(up to 5 cm high) scentless chamomile(Spring annuals up to 4-leaf stage) stinkweed tartary buckwheat velvetleaf (up to 8cm high) wild buckwheat wild mustart(up to 4 leaf

redroot piqweed\*

stage)

nightshade (American and black)

Use the higher rates recommended for each crop when the weeds are past the 4-leaf stage or when weed infestations are heavy. Use a 2,4-D or MCPA tank-mix if weeds have 6 or more leaves.

<sup>\*</sup>Includes triazine resistant varieties.

# DIRECTIONS FOR USE:

DIRECTIONS F	OK USE:	Ţ
Wheat Barley Oats Triticale	625 to 750 millilitres per hectare (10 litres treats 13.3-16.0 hectares	TORCH DS gives best results when weeds are young and actively growing in the 1 to 4-leaf stage. It may be applied from the 2-leaf to early flag leaf stage of the crop. Apply in 100 litres of water per hectare at a pressure of 275 kPa.
Fall Rye Winter Wheat	750 millilitres per hectare (10 litres treats 13.3 hectares)	TORCH DS may be applied safely in the spring from the time the crop commences growth to the early flag leaf stage. Apply in 100 litres of water per hectare at a pressure of 275 kPa. Controls spring annual weeds only.
Flax	625 millilitres per hectare (10 litres treats 16.0 hectares)	TORCH DS may be applied when flax is 5 to 10 cm high. Apply in 100 litres of water per hectare at a pressure of 275 kPa.
Canary Seed	625 to 750 mL per hectare. (10 litres treats 13.3 to 16.0 hectares)	Apply when Canary seed is in the 3-5 leaf stage and broadleaf weeds are in the seedling stage. Apply in 100 litres of water per hectare at a pressure of 275 kPa.
Corn	625 to 750 mL per hectare. (10 litres treats 13.3-16.0 hectares)	TORCH DS is more effective when applied to weeds in the seedling stages of growth. Apply before the crop is 25 cm in height. Apply TORCH DS at a pressure of 275 kPa in a minimum of 150 litres of water per hectare. See also atrazine tank-mix section.

Seedling	875 millilitres per	Apply in 100 litres of
Grasses	hectare (10 L treats	water per hectare at a
for seed	11.4 hectares)	pressure of 275 kPa. Apply
production		when grasses are in the 2
(year of		to 4-leaf stage and before
establish-		the broad leaf weeds are
ment only)		past the 3-4 leaf stage.

#### SPRAYING:

The most important factors for obtaining good weed control with TORCH DS are:

- 1. Spraying weeds in the seedling stage (1-4 leaf stage).
- 2. Uniform spray coverage. Apply in 100 litres of water per hectare at a pressure of 275 kPa and at a speed of 6.5 to 8km/h with ground sprayers only.

Flood jet nozzles are not recommended due to uneven spray pattern. Low pressure nozzles are not recommended unless used at 275 kPa.

Spray coupe application is not recommended unless modifications are undertaken to ensure uniform spray coverage. (ie., decreasing speed and increasing water volume per hectare).

Reduced control can be expected when TORCH DS is applied with floaters unless modifications for post-emergent applications are made.

#### **IMPORTANT:**

CEREALS: Do not apply to wheat, oats, barley or rye during or after the boot stage, or when these crops are underseeded to legumes. Avoid spraying crops during adverse growing conditions especially drought, high temperatures, (over 29'C), or in high humidity. Slight discolouration of cereals may occur. However, this has not resulted in permanent injury and has not reduced yields.

FLAX: Flax is less tolerant of this product than are the cereal crops. Some leaf burn and retarded growth may delay maturity 2 to 3 days. Avoid using TORCH DS when

flax is under stress or during hot(over 29'C) humid weather as severe crop injury may occur.

CORN: Corn injury may occur if sprayed in adverse growing conditions, especially in periods of drought, high humidity, or high temperatures (greater than 29'C). Avoid spraying corn under any of these conditions.

SEEDLING GRASSES: Seedling grasses grown for the purpose of seed production may be treated during the year of establishment only. TORCH DS may be used on bromegrass, crested wheatgrass, intermediate wheatgrass, slender wheatgrass, tall wheatgrass, meadow fescue, creeping red fescue, orchard grass, reed canarygrass, Russian wild ryegrass and timothy. Do not use TORCH DS on seedling grasses that are underseeded to legume crops.

#### TANK-MIXING:

Tank-mixing permits you to choose a herbicide combination that is the most effective for the weed problems present on your farm. Check the weed infestations present and select the best application according to the "Weeds Controlled" section on the following pages.

TORCH DS + 2,4-D OR MCPA TANK-MIXED

#### WEEDS CONTROLLED:

All weeds indicated for TORCH DS used alone plus flixweed, hempnettle, and the top growth of Canada thistle and perennial sow thistle. Tank-mixing with 2,4-P or MCPA will also give better control of weeds past the 5-leaf stage.

- 1. For Canada thistle and perennial sow thistle tank-mix with 275 to 425 grams a.i. per hectare of MCPA or 2,4-D.
- 2. For hemp-nettle tank-mix with 550 grams a.i. per hectare MCPA (amine, ester, Estemine\* or K-salt).

## DIRECTIONS FOR USE:

If weeds are past the 5-leaf stage, a tank-mix with either 2,4-D

or MCPA will enhance control. Depending upon the crop to be treated, use 2,4-P (amine, ester or Estemine) or MCPA (amine, ester, Estemine or K-salt) in the tank mixture. Add the 2,4-D or MCPA to the water first, then add TORCH DS.

CROP	RATE	APPLICATION
Wheat Barley	TORCH DS at 625 mm per hectare (10 L treats 16.0 hectares) plus 2,4-D or MCPA at 275 to 425 grams a.i. per hectare.	Select best tank-mix for weed population present(eg. 2,4-P for Russian thistle). Apply following all precautions and limitations on 2,4-D or MCPA labels. Do not apply tank mixture with 2,4-D prior to the 4-leaf stage of the crop. Apply in 100 litres of water per hectare at a pressure of 275 kPa.
Oats	TORCH DS at 625 mm per hectare. (10 litres treats 1630 hectares) plus MCPA at 275 to to 425 grams a.i. per hectare.	Apply in 100 litres of water per hectare at a pressure of 275 kPa.
Flax	TORCH DS at 625 mm per hectare. (10 L treats 16.0 hectares) plus MCPA at 275 grams a.i. per hectare.	Apply when flax is 5 to 10 cm high in 100 litres of water per hectare at a pressure of 275 kPa.

The amine, ester, Estemine or k-salt formulations of 2,4-D or MCPA can be used in tank mixtures.

Amount of 2,4-D or MCPA to Tank-mix with TORCH DS (at 625 millilitres per hectare of TORCH DS)

Amount of 2,4-D or MCPA a.i. (active ingredient) per hectare	Volume per hectare		
	2,4-D concentration (500 g/L)	MCPA conc. (500 g/L)	MCPA-K conc. (400 g/L)

275g	550 ml	550 ml	700 ml
425g	850 ml	850 ml	1100 ml
550g	-	1100 ml	1400 ml

#### **IMPORTANT:**

Follow all precautions and limitations in the section on TORCH DS used alone and on the 2,4-D or MCPA labels.

## TORCH DS + GLEAN TANK-MIXED

RATE: 0.625 litres of TORCH DS per hectare may be tank-mixed with GLEAN at the recommended rate on the GLEAN label. (Refer to the GLEAN label for recommended rates of application). Add GLEAN to the spray tank first, agitate, then add TORCH DS. Do not add a surfactant with this tank-mix.

WATER VOLUME: 100 litres per hectare PRESSURE: 275 kPa

GROUND SPEED: 8 km/h or less

CROPS: CROP STAGE DURING APPLICATION

Spring wheat 2 - leaf to early flag leaf barley 2 - leaf to early flag leaf

WEEDS CONTROLLED: This tank mix controls all species listed in the "Weeds Controlled" section of TORCH DS Used Alone" plus those weeds listed on the GLEAN label such as chickweed, hempnettle, cleavers and Canada thistle.

# IMPORTANT:

Spray when broadleaf Weeds are young and actively growing for most effective weed control.

Read the "Important" and "Spraying" section under "TORCH DS Used Alone" for precautions to reduce crop damage and for directions on applications.

Be sure to follow all precautions and limitations given on the GLEAN label, including limitations on soil, pH, and crop rotations.

<sup>\*</sup>GLEAN is a trademark of E.I. DuPont de Nemours & Co.

#### TORCH DS + HOE-GRASS\* 284 TANK-MIXED

RATE: 0.625 litres of TORCH DS per hectare plus 2.8 litres of Hoe-Grass 284 per hectare.

WATER VOLUME: 100 litres per hectare. PRESSURE: 275 kPa.

GROUND SPEED: 8 km/h or less

CROPS: Crop Stage Purina Application

Spring wheat 2-leaf to early flag leaf Barley 2-leaf to early flag leaf

Flax 5 to 10 cm high

Triticale 2-leaf to early flag leaf

Grasses 2 to 4-leaf stage

## Restrictions:

1. Do not use this tank-mix on Klages, Harrington or Betzes varieties of barley.

This tank-mix may be used only on grasses grown for seed and only during the year of establishment. Use on the following grass varieties only: bromegrass, crested wheatgrass, Russian wild ryegrass, creeping red fescue, and intermediate wheatgrass.

#### WEEDS CONTROLLED:

broadleaf weeds	seedlings
barnyard grass	1 to 4-leaf
green foxtail	1 to 4-leaf
Persian darnel	1 to 3 leaf
wild oats	1 to 4-leaf
volunteer corn	1 to 4-leaf

3. See "Weeds Controlled" section under "TORCH DS Used Alone" for details on broadleaf species controlled.

## IMPORTANT:

Do not delay spraying broad leaf weeds if the grassy weeds are not in the correct stage.

Read the "Important" and "Spraying" section under "TORCH DS Used

Alone for precautions to reduce crop damage and for directions on applications.

Follow all precautions and limitations given on the Hoe-Grass 204 and TORCH DS labels.

\*Hoe-Grass is a trademark of Hoechst Canada Inc.

## TORCH DS + AVENGE \* 200-C TANK-MIXED

RATE: 0.625 litres of TORCH DS per hectare tank-mixed with AVENGE 200-C herbicide. Select the proper AVENGE application rate as described in the recommendations outlined on the AVENGE 200-C herbicide label.

WATER VOLUME: 100 litres per hectare. PRESSURE: 275 kPa

GROUND SPEED: 6.5 to 0 km/h

CROPS: Use only in barley and Neepawa, Glenlea, Selkirk, Chester, Macoon, Canuck, Columbus, Leader, Fielder and Benito varieties of wheat.

#### WEEDS CONTROLLED:

All broadleaf weeds indicated for TORCH DS used alone plus wild oats.

Spray when broad leaf weeds are in the 1 to 4-leaf stage and the majority of the wild oats are in the 3 to 4-leaf stage. If broadleaf weeds are past the 4-leaf stage use a three-way tank-mix with MCPA ester. If a three way tank-mix with MCPA ester is used, apply TORCH DS at 625 millilitres per hectare with 275 to 425 grams a.i. MCPA ester per hectare with the proper AVENGE application rate. For Hemp-nettle control use 550 grams a.i. MCPA ester per hectare in the three-way mix.

IMPORTANT: Read the "Important" and "Spraying" section under TORCH DS Used Alone" For precautions to reduce crop damage and for directions on applications. Follow all precautions and limitations on both the TORCH DS and Avenge labels.

Avenge is a trademark of Cyanamid Canada Inc.

#### TORCH DS + ATRAZINE TANK-MIXED

#### WEEDS CONTROLLED:

All broadleaf weeds indicated for TORCH DS used alone plus wild oats, foxtails, barnyard grass and old witchgrass. Spray when broadleafs are in the 1 to 4-leaf stage and the majority of the annual grasses are in the 1 to 2-leaf stage.

## DIRECTIONS FOR USE:

Use ONLY in corn. TORCH DS at 625 to 750 millilitres per hectare tank-mixed with atrazine at 1.1 to 2.25 kg of active ingredient per hectare is recommended for broad spectrum weed control. Do not add oil or surfactant. Add atrazine to the tank first. Apply using 200-300 litres of water per hectare at a spray pressure of 275 kPa and a speed of 6.5 to 0 km/hr.

## IMPORTANT:

Crop injury may occur if sprayed in adverse growing conditions especially in periods of drought, high humidity or high temperatures (greater than 29'C). Avoid spraying corn under any of these conditions.

Be sure to follow all precautions and limitations on the TORCH DS and atrazine herbicide labels.

TORCH DS + ROUNDUP\* TANK-MIXED (For Minimum or Zero-Tillage Systems)

## WEEDS CONTROLLED:

common mustardvolunteer cerealsgreen foxtailwild buckwheatlady's thumbwild oatslamb's-quarters

This treatment should be applied to emerged weeds less than 15 cm tall just prior to seeding, or, after seeding and before the crop emerges for minimum or zero-tillage cropping systems in wheat, barley and oats.

## DIRECTIONS FOR USE:

To control certain annual grasses and broadleaf weeds apply

1.1 litres of ROUNDUP with 625 millilitres of TORCH DS plus 350 millilitres of a-nonionic surfactant in not more than 100 litres of clean water per hectare. NOTE: DO NOT APPLY AFTER CROP EMERGENCE.

Since this treatment does not provide residual weed control, application too far in advance of seeding will allow weeds to emerge between application and crop emergence.

Reduced results may occur if water containing soil is used such as water from dugouts, ponds and unlined ditches.

#### **IMPORTANT:**

Be sure to follow all precautions and limitations on both the TORCH DS and ROUNDUP herbicide labels.

\*Roundup is a trademark of Monsanto Company.

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.

+))