## **CAUTION**

KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING



#### Selective Herbicide

ACTIVE CONSTITUENT: 480 g/L TRIFLURALIN SOLVENT: 499g/L or 557 g/L LIQUID HYDROCARBON



A pre-emergence herbicide for the control of annual grasses and certain broadleaf weeds in certain horticultural and agricultural crops as listed in the Directions for Use table.

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USING THIS PRODUCT.

Contents: 5 Litres
20 Litres
110 Litres
200 Litres
500 Litres
1000 Litres

Nufarm Australia Limited ACN 004 377 780 103-105 Pipe Road Laverton North Victoria 3026

Tel: (03) 9282 1000 Fax: (03) 9282 1001



<sup>®</sup> Registered trademark of Nufarm Australia Limited.

#### **GENERAL INSTRUCTIONS**

THIS PRODUCT MUST BE INCORPORATED INTO THE SOIL WITHIN 4 HOURS OF APPLICATION EXCEPT WHERE THE CROP IS SOWN WITH MINIMUM TILLAGE SOWING EQUIPMENT (FITTED WITH KNIFE POINTS OR BLADES LESS THAN 12MM WIDE, USUALLY WITH PRESS WHEELS) WHERE APPLICATION MAY OCCUR UP TO 24 HOURS BEFORE INCORPORATION BY THE SOWING PROCESS.

#### STORAGE AND DISPOSAL (5L, 20L,200L only)

Store in the closed, original container in a dry well-ventilated area, out of direct sunlight. Do not store below 5°C. Extended storage below 5°C can result in the formation of crystals on the bottom of the container. If crystallisation does occur, store the container on its side at room temperature and rock occasionally until crystals re-dissolve. Ensure any crystals are dissolved before adding to the spray tank. Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and products should not be burnt.

#### Refillable containers (500L, 1000L only)

Store in the closed, original container in a dry well-ventilated area, out of direct sunlight. Do not store below 5°C. Extended storage below 5°C can result in the formation of crystals on the bottom of the container. If crystallisation does occur, store the container on its side at room temperature and rock occasionally until crystals re-dissolve. Ensure any crystals are dissolved before adding to the spray tank. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

# Envirodrum 110L Mini Bulk Returnable Container (110L only)

Store the original sealed Envirodrum in a dry, wellventilated area, out of direct sunlight. Do not store below 5°C. Extended storage below 5°C can result in the formation of crystals on the bottom of the container. If crystallisation does occur, store the container on its side at room temperature and rock occasionally until crystals re-dissolve. Ensure any crystals are dissolved before adding to the spray tank. Do not tamper with the Micro Matic valve or the security seal. Do not contaminate the Envirodrum with water or any other foreign matter. After each use of the product, please ensure that the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the empty Envirodrum to the point of purchase. The Envirodrum remains the property of Nufarm Australia Limited.

#### SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. Avoid contact with eyes and skin. Do not inhale spray mist. When opening the container and using the prepared spray wear cotton overalls, buttoned to the neck and wrist and a washable hat and elbow length PVC gloves and face shield or goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

Date: 31.03.06

#### **FIRST AID**

If poisoning occurs contact a doctor or Poisons Information Centre (Phone 13 11 26). If swallowed DO NOT induce vomiting. Give a glass of water.

#### **MATERIAL SAFETY DATA SHEET**

For further information refer to the Material Safety Data Sheet (MSDS).

#### **CONDITIONS OF SALE**

"Nufarm Australia Limited ('Nufarm') shall not be liable for any loss, injury, damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Nufarm's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Nufarm has any authority to add to or alter these conditions."

APVMA Approval No. 56421/5L/0306 APVMA Approval No. 56421/20L/0306 APVMA Approval No. 56421/110L/0306 APVMA Approval No. 56421/200L/0306 APVMA Approval No. 56421/500L/0306 APVMA Approval No. 56421/1000L/0306

In case of emergency: Phone 1800 033 498 Ask for shift supervisor. Toll free 24 hours.

Batch number:

Date of Manufacture:

Drum Master logo (5L, 20L, 200L only)

Envirodrum logo (110L only)

## **CAUTION**

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#### Selective Herbicide

**ACTIVE CONSTITUENT: 480 g/L TRIFLURALIN** SOLVENT: 499g/L or 557 g/L LIQUID HYDROCARBON



A pre-emergence herbicide for the control of annual grasses and certain broadleaf weeds in certain horticultural and agricultural crops as listed in the Directions for Use table.

> READ COMPLETE DIRECTIONS FOR USE BEFORE USING THIS PRODUCT.

Nufarm Australia Limited ACN 004 377 780 103-105 Pipe Road Laverton North Victoria 3026

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APVMA Approval No.: 56421/0306



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## **DIRECTIONS FOR USE:**

## 1. FIELD CROPS

Situation & Crop	Weeds	State	Ra	te /soil ty	/ре	Critical Comments
			Light	Medium	Heavy	
Chickpeas	Annual Ryegrass, Paradoxa Grass (Canary Grass), Wireweed (Hogweed), Black Pigweed. Suppression of Climbing Buckwheat (Black Bindweed), soil surface Wild Oats	Qld only	1.25- 1.7L/ha	1.25- 1.7L/ha	1.25- 1.7L/ha	Use 1.25L/ha when applying immediately prior to sowing. Use 1.7L/ha when applying to dry soil before the planting rain.
	Annual Ryegrass, Wireweed (Hogweed), Deadnettles, Wild Oats	Vic only	800mL/ha   Avadex^ Xi	plus 1.6L/ha tra	ı	Incorporate as per recommendations for wheat, barley and triticale.
	Red & White Fumitory, Rough Poppy, Wireweed, Annual Ryegrass, Barley Grass, Canary Grass, Sand Fescue, Suppression of Deadnettle, Speedwell, Three Cornered Jack, Yellow Burr weed, Brome Grass, Cereal Oats and soil surface Wild Oats	SA only	1.25L/ha	1.25L/ha	1.25L/ha	Apply to level seedbed 0 to 4 weeks before sowing. Incorporate as per Incorporation Table 6.
	Amaranthus, Annual Ryegrass, Barnyard Grass, Caltrop, Crab Grass, Paradoxa Grass (Canary Grass), Pigweed, soil surface Wild Oats, Winter Grass, Wireweed, Suppression of Fumitory	NSW, ACT only	1.2-1.5L/ha	1.5L/ha	1.7L/ha	Apply from 4 weeks up to just prior to sowing. Refer Incorporation Table 3, 4 or 5 for suitable method of incorporation.
Adzuki Beans, Cowpeas, Lablab, Mung Beans, Borlotti Beans, Red Kidney Beans		NSW, ACT, Qld only				
Faba Beans	Annual Ryegrass, Barley Grass, Capeweed, Corn Gromwell (Sheepweed), Fumitories, Geranium, Ivy Leaf Speedwell, Mustards, Turnips, Wireweed. Suppression of Brome Grass, Soursob and soil surface Wild Oats	SA, WA only	800mL/ha plus 1.1kg/ha Nufarm Simazine 900DF		a Nufarm	Apply to bare moist soil and incorporate to a depth of 5cm just prior to sowing. Incorporation should be made within 4 hours of application.  Application should not be made to ridged or excessively cloddy soil. For full reliable results, significant rainfall (20 or 30mm) is necessary within 2-3 weeks of application.
Pigeon Peas	Amaranthus, Barnyard Grass, Canary Grass, Crowsfoot Grass, Pigweed, Spiny Burrgrass, Summer Grass, soil surface Wild Oats, Wireweed (Hogweed), Suppression of Yellow Vine (Caltrop), From seed only: Columbus Grass, Guinea Grass, Johnson Grass, Liverseed Grass	NSW, ACT only	1.2L/ha	1.5L/ha	1.7L/ha	Apply between 4 weeks and just before sowing. Refer to Incorporation Table 3, 4 or 6 for suitable method of incorporation.
Lentils	Annual Phalaris, Annual Ryegrass, Wild Oats, Wireweed	NSW, ACT only	800mL/ha	1.2L/ha	1.2L/ha	Apply 1 to 4 weeks before sowing.
	Fumitory – Red and White, Rough Poppy, Wireweed, Barley Grass, Canary Grass, Annual Ryegrass, Sand Fescue	SA only	1.25L/ha	1.25L/ha	1.25L/ha	Apply 1 to 4 weeks before sowing.

## 1. FIELD CROPS continued

Situation &	Weeds	State	Rate /soil type			Critical Comments
Crop			Light	Medium	Heavy	
Navy Beans	Annual Ryegrass, Barnyard Grass, Canary Grass, Caltrop (Bullhead, Yellow Vine), Crab Grass, Mossman River Grass (Innocent Grass), Pigweed, Redroot (Amaranthus), Redshank (Prince of Wales Feather), Summer Grass, soil surface Wild Oats, Winter Grass, Wireweed (Hogweed)	All States	1.2L/ha	1.5L/ha	1.7L/ha	Spray between 4 weeks and just before sowing takes place. Refer incorporation Table 3, 4 or 5 for suitable method of incorporation.
Soybeans			1.2L/ha	1.7L/ha	2.3L/ha	
	From seed only: Columbus Grass, Guinea Grass, Johnson Grass, Liverseed Grass (Urochloa)					
Vetch	Annual Ryegrass, Deadnettle, Wireweed, soil surface Wild Oats, suppression of Brome Grass, Rough Poppy, Speedwell, Three Cornered Jack, Yellow Burr Weed, Sheepweed	SA, WA only	1.7L/ha	1.7L/ha	1.7L/ha	Apply to level seedbed 0 to 4 weeks before sowing. Refer to Incorporation Table 6 for method of incorporation.
Cotton	Johnson Grass, Liverseed Grass (Urochloa), Annual Ryegrass, Barnyard Grass, Canary Grass, Caltrop (Bullhead/ Yellow Vine)	Qld, ACT, NSW, WA only	1.2L/ha	1.7L/ha	2.3L/ha	Spray between 6 weeks and just before sowing takes place. Refer Incorporation Table 1 & 2 for method of incorporation.
Legume Seed Crop Establishment		NSW, ACT, SA, WA, Vic, Tas only	1.2L/ha	1.2L/ha	1.7L/ha	Autumn Sowing – Apply from 4 weeks to 7 days before sowing takes place. Refer Incorporation Table 6 for method of incorporation.
Medics - Clover (Berseem, Red, Strawberry,			1.2L/ha	1.7L/ha	1.7L/ha	Spring Sowing – Apply between 4 weeks and 3 days before sowing takes place. Refer Incorporation Table 6 for method of incorporation.
- Lucerne for hay and seed crop		All States				In both cases seedling disease, cold weather, excessive moisture, high salt concentrations and drought could weaken crop seedlings and damage could occur from the use of this product. Temporary crop suppression could result.
Linseed	Phalaris spp. Fumitory	NSW, ACT, SA, WA, Vic only	1.2L/ha	1.5L/ha	1.7L/ha	Spray 2-4 weeks before sowing. Sowing depth should be 1.3 to 2.5cm. Deeper sowing may result in some stand reduction. Refer Incorporation Table 6 for method of incorporation.
Peanuts		WA, Qld, only				Spray between 4 weeks and just before sowing takes place. Refer Incorporation Table 3, 4 or 5 for suitable method of incorporation.
Peas		All States	-			Spray between 4 weeks and just before sowing takes place. Refer Incorporation
Canola Safflower						Table 6 or 11 for method of incorporation.
Sugar cane - Early Season - Late Season		Qld, NSW only	3.0L/ha 2.3L/ha	3.0L/ha 2.3L/ha	3.0L/ha 2.3L/ha	Apply to plant cane after emergence to "out of hand" stage. Apply to ratoon cane immediately after harvest. Refer Incorporation Table 3, 7 or 10 for suitable method of incorporation.
	(cont over)					P. S. W. S.

## 1. FIELD CROPS continued

Situation &	Weeds	State	Ra	te /soil ty	/ре	Critical Comments
Crop			Light	Medium	Heavy	
Sunflowers	(cont) Refer to weeds on previous page	All States	1.2L/ha	1.5L/ha	1.7L/ha	Spray between 4 weeks and just before sowing takes place. Refer Incorporation Table 3, 4 or 5 for method of incorporation.
Lupins						Spray between 4 weeks and just before sowing takes place. Refer Incorporation Table 6 for method of incorporation.  WA only: Use higher rate for heavier stubble coverage. Stubble coverage above 40-50% ground cover can reduce weed control below acceptable levels. Refer table 13 for method of incorporation.
	Annual Grasses and Broadleaf Weeds	NSW, ACT, Vic, Qld only		plus 1.7 kg/l mazine 900E		Use a low volume boom applying 50-100L/ha spray mixture. Apply to bare moist soil and incorporate to a depth of 5cm just prior to sowing the crop. Incorporate within 4 hours of application. Do not apply to a ridged soil.
	Capeweed, Turnip, Radish, Doublegee and Suppression of Annual Ryegrass and soil surface Wild Oats	WA only		olus 560-830 mazine 900E		Rate for Yellow Sands. Refer to incorporation Tables 11, 12 or 13.
	As above plus suppression of Brome Grass			olus 1.1kg/ha mazine 900E		Rate for all other soil types. Apply to bare moist soil and incorporate to a depth of 5cm just prior to sowing. Incorporation should be made within 4 hours of application. Application should not be made to ridged or excessively cloddy soil. For Simazine to be effective sufficient rainfall (20-30mm) to wet the soil through the weed root zone is necessary within 2-3 weeks of application. Results with Simazine can be variable if seasonal conditions are dry prior to sowing and Lupins are sown into dry or low moisture seed beds.
	Capeweed, Doublegee, Wild Radish, Wild Turnip plus suppression of Annual Ryegrass, soil suface Wild Oats and Brome Grass		1.25L/ha plus 1.1kg/ha Nufarm Diuron 900DF			DO NOT use on white or grey sands as severe crop damage may result. Use tank mix of Diuron & Trifluralin where Annual Ryegrass is present. Apply pre-sowing stage when using Incorporation method in Table 13. For Post-sowing Pre-emergent application, ensure seed is adequately covered with soil. Refer to Incorporation Table 12.
	Red & White Fumitory, Rough Poppy, Wireweed, Barley Grass, Canary Grass, Annual Ryegrass, Sand Fescue, suppression of Deadnettle, Speedwell, Three Cornered Jack, Yellow Burr Weed, Brome Grass, Cereal Oats, soil surface Wild Oats	SA only	1.25- 1.7L/ha 1.7L/ha 1.7L/ha			Spray between 4 weeks and just before sowing takes place. Refer Incorporation Table 6 for method of incorporation.
(cont'd over)						

## 1. FIELD CROPS continued

Situation &	Weeds	State	Rate /soil type		/ре	Critical Comments
Crop			Light	Medium	Heavy	
Lupins (cont'd)	Above weeds plus Capeweed, Common Fumitory, Geranium, Indian Hedge Mustard, Sheepweed, Shepherd's Purse, Toadrush, Turnips, suppression of Ice Plant, Soursob	SA only	1.25L/ha to 1.7L/ha plus 1.1- 2.2kg/ha Nufarm Simazine 900DF			Use a low volume boom applying 50-100L/ha spray mixture. Apply to bare moist soil and incorporate to a depth of 5cm just prior to sowing the crop. Incorporate within 4 hours of application. Do not apply to a ridged soil.
Tobacco	Summer Grass, Crowsfoot Grass, Red Natal Grass, Love Grass, Button Grass, Rhodes Grass, Pigweed	Qld only	800mL/ha	1.2L/ha		Apply to soil 3-4 weeks prior to transplanting. The longer period to be used for applications made during June & July. Incorporate to a depth of 10cm.
	Crowsfoot Grass	NSW, ACT only	800mL/ha	1.2L/ha	1.2L/ha	Apply to light sandy soil 14 to 21 days before transplanting. Do not incorporate to a depth greater than 6cm. Apply to loam (medium soil) 14 to 21 days before transplanting. DO NOT incorporate to a depth of greater than 6cm.
Wheat, Barley & Triticale	Annual Ryegrass, Wireweed (Hogweed), Phalaris spp.	NSW, ACT, WA, Vic only	800mL/ha	800mL/ha	800mL/ha	Apply 1-4 weeks before sowing. Sowing depth should be at least 5cm. Use cover harrows behind combine. Ground should be left flat. DO NOT use pre-sowing on
	Fumitory	WA only				self-mulching soils as damage may occur from wheel tracking and poor control of
1. Pre-Sowing Only	Canary Grass	Vic only				wild oats. Refer Incorporation Table 6 for method of incorporation.
2. Pre-Sowing & Post Sowing (self-mulching soils)	As above, except for Fumitory	Vic only				Pre-sowing – Apply more than 4 weeks before sowing to prevent crop damage. Post Sowing – Apply within 2 days after sowing to well prepared seedbed. Refer Incorporation Table 6 for suitable method of incorporation.
Wheat	Annual Ryegrass, Paradoxa Grass (Canary Grass), soil surface Wild Oats, Wireweed (Hogweed)	Qld only	800mL/ha	800mL/ha	800mL/ha	On non self-mulching soils apply 1-4 weeks before sowing. Sowing depth should be at least 5cm. Use cover harrows behind combine. Ground should be left flat. On self-mulching soils, as above except apply more than 4 weeks before sowing to prevent crop damage. Refer Incorporation Table 6 for method of incorporation.
Barley						Apply to self-mulching and non self-mulching soils from 1-4 weeks before sowing. Sowing depth should be at least 5cm. Use cover harrows behind combine. Ground should be left flat. Refer Incorporation Table 6 for suitable method of incorporation.
Wheat, Triticale, Rye	Annual Ryegrass, Red & White Fumitory, Phalaris spp., Wireweed, suppression of Deadnettle, Rough Poppy, Yellow Burr Weed	SA only				Apply 1-4 weeks before sowing. Sowing depth should be at least 5cm. Use cover harrows behind combine. Ground should be left flat. DO NOT use pre-sowing on self-mulching soils as damage may occur from wheel tracking and poor control of
Barley	As above for SA plus Sand Fescue and suppression of Brome Grass		1.25L/ha	1.25L/ha	1.25L/ha	wild oats. Refer Incorporation Table 6 for method of incorporation.
Wheat & Triticale only	Annual Phalaris	NSW, ACT only	800mL/ha ∣ or Lusta™	olus 20g/ha	Glean*	If possible, spray and incorporate into the soil in one operation. If this is not possible incorporation should take place within 4 hours of spraying. Delay may cause inferior weed control.

# 2. FIELD CROPS: FOR USE IN NO-TILL/MIN-TILL CROPPING SYSTEMS, PRE-SOWING OR INCORPORATED BY SOWING (IBS). (Using Incorporation Table 13)

Situation & Crop	Weeds	State	Rate	Critical Comments		
Wheat, barley and triticale	Annual Ryegrass, Wireweed, Phalaris spp, Fumitory, Sand Fescue (Vulpia fasciculata), Wintergrass (Poa annua), Paradoxa Grass (Canary Grass) (Phalaris paradoxa), Corn Gromwell (Sheepweed) (Buglossoides arvensis), Rough Poppy (Papaver hybridum)  Suppression Soil Surface - Wild Oats, Bromegrass (Bromus diandrus) Silvergrass (Vulpia bromoides), Barleygrass (Hordeum leporinum), Cereal Oats (Avena sativa), Three Cornered Jack (doublegee) (Emex australis), Caltrop (Bullhead & yellowvine) (Tribulus terrestris), Yellow Burr Weed (Amsinckia spp), Deadnettle (Lamium amplexicaule), Speedwell (Veronica spp)	WA, SA, Vic, NSW, Qld only	1.5L-3L/ha	Use only with knife/blade points and presswheels refer to table 13 for method of incorporation. Use higher rates on light sandy and sandy loam soils. DO NOT use on heavy soils. Use higher rates for heavier stubble coverage and high weed density situations. Stubble coverage above 40-50% ground cover can reduce weed control below acceptable levels. Suppression of Bromegrass and Barleygrass may be reduced in medium to high weed density situations. Higher rates are likely to provide improved suppression of Bromegrass, Wild oats, Cereal oats, Barleygrass and Silvergrass. Control of deep germinating / late germinating weeds may be reduced.  To maintain crop safety attention to sowing speed and soil throw is required. Avoid throwing treated soil into adjacent sowing furrows. This is especially critical at higher use rates. Avoid sites that water log or where furrow walls may collapse as crop establishment & vigour may be reduced.  Application can occur 0-24 hours prior to application by sowing. For best results apply as close as possible to sowing (within 12 hours). Application 12-24 hours before sowing may be more adversely affected by above average soil moisture, warm winter temperatures and high weed seed densities. These factors individually or combined may reduce final weed control. Avoid sowing sensitive crops into areas treated with 2-3L/ha if dry or drought conditions have persisted since application.		
	Annual Ryegrass, Wireweed, Phalaris spp, Fumitory, Wild Oats, Cereal oats (Avena sativa), Sand Fescue (Vulpia fasciculata), Silvergrass (Vulpia bromoides) Wintergrass (Poa annua), Paradoxa Grass (Canary Grass) (Phalaris paradoxa), Corn Gromwell (Sheepweed) (Buglossoides arvensis), Rough Poppy (Papaver hybridum)  Suppression Soil Surface - Bromegrass (Bromus diandrus), Barleygrass (Hordeum leporinum), Three Cornered Jack (doublegee) (Emex australis), Caltrop (Yellowvine & Bullhead) (Tribulus terrestris), Yellow Burr Weed (Amsinckia spp), Deadnettle (Lamium amplexicaule), Speedwell (Veronica spp)		1.5-2.0L/ha plus 1.6-2.0 L/ha Avadex Xtra	Use only with knife/blade points and presswheels refer to table 13 for method of incorporation. Use higher rates on light sandy and sandy loam soils. DO NOT use on heavy soils. Avoid soils, which are non-wetting or are likely to become clumpy or cloddy as they may suffer reduced weed control. Use higher rates for heavier stubble coverage and high weed density situations. Stubble coverage above 40-50% ground cover can reduce weed control below acceptable levels. Suppression of Bromegrass and Barleygrass may be reduced in medium to high weed density situations. Higher rates are likely to provide improved control levels of Bromegrass, Wild oats, Cereal oats, Barleygrass and Silvergrass. Control of deep / late germinating weeds may be reduced.  Insufficient incorporation of Avadex Xtra will reduce Wild oat control. Control may be poor in the first years of practising no-till/min till.  To maintain crop safety attention to sowing speed and soil throw is required. Avoid throwing treated soil into adjacent sowing furrows. This is especially critical at higher use rates. Avoid sites that water log or where furrow walls may collapse as crop establishment & vigour may be reduced.  Incorporate within 24 hours of application when applied onto a dry soil. Incorporate within 6 hours when applied onto a moist soil. If applied onto a dry soil, and it rains before sowing/incorporation is planned, incorporate within 6 hours to ensure the effectiveness of Avadex Xtra is retained.		
Chickpeas	Annual Ryegrass, Wireweed, Phalaris spp, Fumitory	WA only	1.25-1-7L/ha plus 1.1kg/ha Nufarm Simazine 900DF	Incorporate as per Incorporation Table 13.		

#### 3. VEGETABLES, ORCHARDS AND VINEYARDS

Situation &	Weeds	State	Ra	te /soil ty	/ре	Critical Comments
Crop			Light	Medium	Heavy	
Transplants Only Broccoli, Cabbage, Cauliflowers, Tomatoes	Annual Ryegrass, Barnyard Grass, Canary Grass, Caltrop (Bullhead.Yellow Vine), Crab Grass, Mossman River Grass (Innocent Grass), Pigweed, Redroot (Amaranthus), Redshank (Prince of Wales Feather), Summer Grass, soil surface Wild Oats, Winter Grass, Wireweed (Hogweed)  From seed only: Columbus Grass, Guinea	All States	1.2L/ha	1.7L/ha	2.3L/ha	Spray between 4 weeks and just before sowing takes place. Refer Incorporation Table 3, 4 or 5 for suitable method of incorporation.
Direct Seeded Only Broccoli Brussels Sprouts, Cabbage,						
Cauliflower		Vic, Qld only				
Carrots	Grass, Johnson Grass, Liverseed Grass	All States				
Chicory	(Urochloa)	Vic only				
Green Beans		All States	1.2L/ha	1.5L/ha	1.7L/ha	
Orchards and Vineyards		Qld, SA, WA, Vic, Tas only	1.2L/ha	1.7L/ha	2.3L/ha	Apply to new planting during pre plant cultivation. Apply to established crops in spring after weeds and green manure crop has been ploughed into ground. Refer Incorporation Table 8 or 9 for suitable method of incorporation.

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

#### WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.

#### **GENERAL INSTRUCTIONS**

THIS PRODUCT MUST BE INCORPORATED INTO THE SOIL WITHIN 4 HOURS OF APPLICATION EXCEPT WHERE THE CROP IS SOWN WITH MINIMUM TILLAGE SOWING EQUIPMENT (FITTED WITH KNIFE POINTS OR BLADES LESS THAN 12MM WIDE, USUALLY WITH PRESS WHEELS) WHERE APPLICATION MAY OCCUR UP TO 24 HOURS BEFORE INCORPORATION BY THE SOWING PROCESS.

### **INCORPORATION TABLE**

- 1. Prior to furrowing out: 2 workings at an angle required using Offset or Tandem disc harrows.
- 2. After furrowing out: 2 workings required using Go-Devil discs or Lilliston cultivators set at 10 cm depth.
- 3. Rotary Hoe: 1 working required at 5-7.5cm depth. Sugar Cane: 7.5-13cm depth.
- 4. Offset or Tandem Disc Harrows:- (preferably with spiked harrows in tandem) 2 workings at an angle required at 7.5-15cm depth at 6.5-10km per hour.
- Heavy Diamond or Stump Jump Harrows:-(weighted 20-30kg per section) at 10-13 km/h speed.
   Then cross work with offset or tandem disc harrows set to 7.5-15cm depth at speed 6.5-10km per hour.
- 6. Weighted Heavy Diamond or Stump Jump Harrows: (weighted with 20-30kg per section) at 10-13km/hr. Cross work with combine at 5-7.5cm depth at speed of 10-13km/hr.
- 7. Disc Ratoon Cultivator: 2 workings needed with

- discs and cultivator set at 7.5-13cm depth.
- 8. Offset or Tandem Disc Harrows:- set at 7.5-15cm depth. A second discing is required working in opposite direction with discs set to throw treated soil into tree or vine row.
- 9. Rotary Hoe: 1 working needed at 5-10cm depth.
- 10. Offset Discs(Bumpers): 2 workings needed at depth of 7.5-13cm.
- 11. Incorporation by sowing (IBS) on suitably prepared seedbed with heavy diamond harrows trailing or as a separate operation.
- 12. Post-sowing/Pre-emergence: Use heavy diamond harrows cross working at right angles to the direction of sowing. Do not attempt this method of incorporation on poorly prepared, clumpy or cloddy soils.
- 13. Incorporation by Sowing (IBS) with knife or blade points. Use press wheels to avoid dragging treated soil back into the seed furrow. Maintain slow to moderate speed to ensure that soil throw is not into adjacent furrows."
- Note: a. Knife or blade point systems can result in poor weed control in the seed furrow as chemical displacement from this zone occurs. Stubble coverage above 40-50% ground cover can reduce weed control below acceptable levels. b. A Knife or blade point is 12mm or less, has no wings, inverted T or blade, and is generally placed on a minimum 8 inch tyne spacing.
  - c. Do not use with disc openers/planting equipment.

#### MIXING

readily with water. Add the recommended amount to the spray tank during filling operation and apply 70-450L of water/ha (broadcast basis) dependent on soil type and stubble coverage level. For minimum tillage/stubble retention seeding systems use of the higher water volumes may help reduce the impact of stubble. Ensure adequate agitation is continued throughout the operation. Leaving the made up spray mixture for long periods of time without agitation is not recommended. Under hot conditions or where possible spray and incorporate into the soil in one operation. Delay may cause inferior weed control. Use properly calibrated standard low pressure (170-340 kilopascal) boom type sprayer with fan tips.

This product is an emulsifiable concentrate which mixes

#### **CONDITIONS FOR BEST RESULTS**

This product must be thoroughly incorporated as recommended. Soil should be well worked and free of weeds at time of application. Product effectiveness may be reduced by inadequate incorporation, high organic matter, excess clods, crop or trash residues, stones or other foreign matter and in areas of unnaturally high weed seed population such as header tracks or livestock rest areas. Trifluralin is volatile and disappears from exposed surfaces. Loss is hastened by high temperatures, winds or warm moist soil.

#### **Integrated Weed Management:**

The use of Integrated Weed Management techniques in conjunction with TriflurX are always recommended. Agronomic practices that reduce the weed seed bank in the soil prior to the use of TriflurX will result in higher weed control levels from TriflurX. Failure to use Agronomic and Integrated Weed Management practices that reduce the weed seed bank in the soil will result in higher weed seed populations. Paddocks with excessively high weed seed banks may have sufficient weed numbers surviving such that final weed control may be considered below a commercially acceptable level and additional herbicide treatments may be necessary. The use of Integrated Weed Management techniques will also reduce the potential for the development or survival of Group D herbicide resistance weed biotypes.

#### **WILD OATS**

Germinating wild oat seeds lying on soil surface will be controlled. Therefore, specific wild oat control is only possible with shallow cultivation. Poor control will occur on self mulching soils and all soil types where deep cultivation is practised.

#### **COMPATIBILITY**

This product may be mixed in the spray tank with: Herbicides: Avadex^ Xtra, Lusta™/Glean\*, Nugran/Logran\*, Diuron 900 DF, Simazine 900 DF, Nuquat® 250, Gramoxone\*, Spray•seed\*, Broadstrike\*, Spinnaker\*, Bladex\*, Sencor\*/Lexone\*, Credit®/Bonus®, Insecticides: Chlorpyrifos 500EC, Endosulfan 350EC. NOTE: 1. Information on compatibility is understood to be correct at the time of publication, however products may vary from time to time, therefore a small scale compatibility test should be carried out before mixing in the spray tank. 2. Observe any

mixing sequence instructions for tank mix products.

Date: 31.03.06

#### **EQUIPMENT MAINTENANCE AND USAGE**

Keep the spray unit for herbicides only if possible. Otherwise, spray tanks, pumps, lines and nozzles should be thoroughly rinsed several times with clean water following application. Spraymate Tank & Equipment Cleaner is suitable for this purpose and will also remove Trifluralin stains.

#### **RESISTANT WEEDS WARNING**

GROUP HERBICIDE

Nufarm TriflurX Selective Herbicide ("TriflurX") is a member of the Dinitronilines group of herbicides. TriflurX has the inhibitors of tubulin formation mode of action. For weed resistance management TriflurX is a Group D herbicide.

Some naturally-occurring weed biotypes resistant to TriflurX and other Group D herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by TriflurX or other Group D herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Nufarm Australia Limited accepts no liability for any losses that may result from the failure of TriflurX to control resistant weeds.

## PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT use in high winds.

DO NOT exceed rates specified, to avoid crop damage. DO NOT plant sensitive grasses such as oats, sorghum, millets, phalaris spp., ryegrass or wheat for 12 months following the use of this product except where wheat follows wheat or other winter crops. DO NOT plant oilseed poppies when a detectable residue of Trifluralin is present in the soil. Levels as low as 0.02ppm may interact with other unfavourable factors (moisture, stress, disease etc.) to reduce poppy growth and vigour.

DO NOT apply to orchards and vineyards after first flush of growth or when residues can lodge on or in fruit. Reduced germination of wheat and barley may occur due to combination of following circumstances and the use of this product:

- · Short coleoptile cultivars
- Use of seed dressings (except Vitavax\*)
- · Shallow or uneven seedling depth.

**Drift Warning:** DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause spray drift onto nearby susceptible plants, adjacent crops, crop lands or pastures.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

#### STORAGE AND DISPOSAL

Store in the closed, original container in a dry well-ventilated area, out of direct sunlight. Do not store below 5°C. Extended storage below 5°C can result in the formation of crystals on the bottom of the container. If

crystallisation does occur, store the container on its side at room temperature and rock occasionally until crystals re-dissolve. Ensure any crystals are dissolved before adding to the spray tank.

#### 5L, 20L, 200L containers only:

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and products should not be burnt. **Refillable containers** (500L, 1000L only)

Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage. *Envirodrum 110L Mini Bulk Returnable Container* (110L only)

Do not tamper with the Micro Matic valve or the security seal. Do not contaminate the Envirodrum with water or any other foreign matter. After each use of the product, please ensure that the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the empty Envirodrum to the point of purchase. The Envirodrum remains the property of Nufarm Australia Limited.

#### **SAFETY DIRECTIONS**

Harmful if swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. Avoid contact with eyes and skin. Do not inhale spray mist. When opening the container and using the prepared spray wear cotton overalls, buttoned to the neck and wrist and a washable hat and elbow length PVC gloves and face shield or goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

#### **FIRST AID**

If poisoning occurs contact a doctor or Poisons Information Centre (Phone 13 11 26). If swallowed DO NOT induce vomiting. Give a glass of water.

### **MATERIAL SAFETY DATA SHEET**

For further information refer to the Material Safety Data Sheet (MSDS).

#### **CONDITIONS OF SALE**

"Nufarm Australia Limited ('Nufarm') shall not be liable for any loss, injury, damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Nufarm's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Nufarm has any authority to add to or alter these conditions."

APVMA Approval No. 56421/0306

In case of emergency: Phone 1800 033 498 Ask for shift supervisor. Toll free 24 hours.

Date: 31.03.06

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- \* Other registered trademarks
- ™ Trademark Pending
- ^ Avadex is a registered trademark of Nufarm Technologies USA Pty Ltd.