

# POISON

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

# FMC CLODINAPOP

## 240 HERBICIDE

ACTIVE CONSTITUENTS: 240 g/L CLODINAPOP

60 g/L CLOQUINTOCET-MEXYL

SOLVENTS: 575 g/L LIQUID HYDROCARBONS

100 g/L N-METHYL-2-PYRROLIDONE

GROUP **A** HERBICIDE

For the control of Wild Oats, Paradoxa Grass (Annual Phalaris), Canary Grass and Annual Ryegrass in Wheat. Highly active on Wild Oats and can be mixed with many broadleaf herbicides specified in the DIRECTIONS FOR USE table.

IMPORTANT: READ THIS LEAFLET BEFORE USE

# FMC

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## DIRECTIONS FOR USE

### RESTRAINTS

DO NOT apply if rainfall is expected within 2 hours.

DO NOT apply to weeds or crops that are under stress. For example, due to very dry, very wet, frosty or diseased conditions, nutrient deficiency or high insect pressure.

DO NOT apply to weeds or crops immediately after a prolonged period of frosts.

DO NOT apply under poor growing conditions.

Crop	Weeds Controlled	State	Rate/ha	Weed Stage Growth	Critical Comments
Wheat 2 leaf to late jointing (Zadoks 12 – 37)	Wild Oats	Nth NSW, Qld only	65mL + 1 L of DC-Trate oil or 500mL Hasten oil per 100L of water	2 to 5 leaf	<p><b>NOT TO BE MIXED WITH BROADLEAF HERBICIDES AT THESE RATES.</b></p> <p>Apply at 85 mL/ha when weeds are not actively growing.</p> <p>Where low water volumes are used. DO NOT use less than the minimum oil volumes specified (See Minimum Oil Volumes).</p> <p><b>Cold water:</b> Under cold water conditions (10°C or less), use Hasten instead of DC-Trate.</p>
			85mL + 1L of DC-Trate oil or 500mL Hasten oil per 100L of water	2 leaf to mid tillering	
			85mL + 1 L of DC-Trate oil or 500mL Hasten oil per 100L of water	2 to 5 leaf	<p><b>MAY BE TANK MIXED WITH COMPATIBLE HERBICIDES.</b></p> <p>Apply in mixtures for broadleaf weed control only when weeds are actively growing.</p> <p>When mixing FMC Clodinafop 240 with certain broadleaf weed herbicides some reduction in grass weed control may occur.</p> <p>Unless otherwise specified always use DC-Trate, Infuse or Hasten when tank mixing broadleaf herbicides.</p> <p>Apply at 125 mL/ha when weeds are not actively growing.</p> <p>Where low water volumes are used. DO NOT use less than the minimum oil volumes specified (See Minimum Oil Volumes).</p> <p><b>Cold water:</b> Under cold water conditions (10°C or less), use Hasten instead of DC-Trate.</p>
			125mL + 1L of DC-Trate oil or 500mL Hasten oil per 100L of water	2 leaf to mid tillering	

Crop	Weeds Controlled	State	Rate/ha	Weed Stage Growth	Critical Comments
Wheat 2 leaf to late jointing (Zadoks 12 – 37)	Wild Oats	Sthn NSW, VIC, SA, WA only	65mL + 1 L of DC-Trate oil or 500mL Hasten oil per 100L of water	2 to 5 leaf	<p><b>MAY BE TANK MIXED WITH COMPATIBLE HERBICIDES.</b></p> <p>Apply in mixtures for broadleaf weed control only when weeds are actively growing.</p> <p>When mixing FMC Clodinafop 240 with certain broadleaf weed herbicides some reduction in grass weed control may occur.</p> <p>Refer to compatibility chart for specific rates for tank mixes.</p> <p>Unless otherwise specified always use DC-Trate, Infuse or Hasten when tank mixing broadleaf herbicides.</p> <p>Apply at 85mL/ha when weeds are not actively growing.</p> <p>Where low water volumes are used, DO NOT use less than the minimum oil volumes specified (See Minimum Oil Volumes).</p> <p><b>Cold water:</b> Under cold water conditions (10°C or less), use Hasten instead of DC-Trate.</p>
			85mL + 1L of DC-Trate oil or 500mL Hasten oil per 100L of water	2 leaf to mid tillering	
	Paradoxa Grass ( <i>Phalaris paradoxa</i> ) Canary Grass ( <i>Phalaris minor</i> )	QLD, NSW, VIC, SA only	85mL + 1 L of DC-Trate oil or 500mL Hasten oil per 100L of water	2 to 3 leaf	<p><b>NOT TO BE MIXED WITH BROADLEAF HERBICIDES AT BELOW 160mL/ha.</b></p> <p>Apply in mixtures for broadleaf weed control only when weeds are actively growing.</p> <p>When mixing FMC Clodinafop 240 with certain broadleaf weed herbicides some reduction in grass weed control may occur.</p> <p>Apply at 160 mL/ha when weeds are not actively growing.</p> <p>Where low water volumes are used, DO NOT use less than the minimum oil volumes specified (See Minimum Oil Volumes).</p> <p><b>Cold water:</b> Under cold water conditions (10°C or less), use Hasten instead of DC-Trate.</p>
			125mL + 1L of DC-Trate oil or 500mL Hasten oil per 100L of water	2 to 5 leaf	
			160mL + 1L of DC-Trate oil or 500mL Hasten per 100L of water	2 leaf to early tillering	

Crop	Weeds Controlled	State	Rate/ha	Weed Stage Growth	Critical Comments
Wheat 2 leaf to late jointing (Zadoks 12 – 37)	Annual Ryegrass	NSW, VIC, SA, WA only	160mL + 1L of DC-Trate oil or 500mL Hasten per 100L of water	2 to 4 leaf	<b>MAY BE TANK MIXED WITH COMPATIBLE HERBICIDES.</b> Apply in mixtures for broadleaf weed control only when weeds are actively growing. When mixing FMC Clodinafop 240 with certain broadleaf weed herbicides some reduction in grass weed control may occur. Apply at 210mL/ha when weeds are not actively growing. Where low water volumes are used, DO NOT use less than the minimum oil volumes specified (See Minimum Oil Volumes). <b>Cold water:</b> Under cold water conditions (10°C or less), use Hasten instead of DC-Trate.
			210mL + 1L of DC-Trate oil or 500 mL Hasten per 100L of water	2 leaf to early tillering	

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

#### WITHHOLDING PERIODS

**HARVESTED GRAIN: WITHHOLDING PERIOD NOT REQUIRED WHEN USED AS DIRECTED.**

**ANIMAL GRAZING/FEEDING: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 4 WEEKS AFTER APPLICATION.**

#### GENERAL INSTRUCTIONS

FMC Clodinafop 240 Selective Herbicide should be applied only when weeds are actively growing.

#### Resistant Weeds Warning

**GROUP A HERBICIDE**

FMC Clodinafop 240 Selective Herbicide is a member of the aryloxyphenoxypropionate ('fop') group of herbicides. FMC Clodinafop 240 has the inhibition of fat (lipid) synthesis, (or inhibitors of acetyl CoA carboxylase) mode of action. For weed resistance management FMC Clodinafop 240 is a Group A herbicide.

Some naturally-occurring weed biotypes resistant to FMC Clodinafop 240 and other Group A 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 FMC Clodinafop 240 or other Group A herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, FMC Crop Protection Pty Ltd accepts no liability for any losses that may result from the failure of FMC Clodinafop 240 to control resistant weeds.

**Weed biotypes resistant to diclofop-methyl and other 'grass specific' herbicides can also often be resistant to FMC Clodinafop 240. Before using FMC Clodinafop 240 on a population resistant to or suspected to be resistant to 'grass specific' herbicides, have a resistance test conducted to ensure that it is susceptible to FMC Clodinafop 240.**

Large numbers of healthy surviving weeds can be an indication that resistance is developing. Efforts should be made to prevent seed set of the surviving weeds.

DO NOT make more than one application of a Group A herbicide with the inhibition of fat (lipid) synthesis (or inhibitors of acetyl CoA carboxylase) mode-of-action to a crop in the same season.

If the user suspects that the target weed population is resistant to herbicides with this mode of action, FMC Clodinafop 240 or other Group A herbicides should not be used.

Strategies to minimize the risk of herbicide resistance are available. The above recommendations should be incorporated into an Integrated Weed Management (IWM) Program. Consult your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local FMC representative for details.

#### MIXING

Fill the spray tank to one quarter full. Then add FMC Clodinafop 240 while adding water to make up the final spray volume. Pour FMC Clodinafop 240 into the stream of incoming water. Good agitation at the time FMC Clodinafop 240 is added to the tank will ensure good mixing. Add the required amount of DC-Trate\*, Hasten, oil just before the tank is full of water and with the agitators in motion.

## Mixing order

Some products may react with other products if they are not mixed in the correct order. The general mixing order of products should be:

1. Water conditioners or buffers
2. Water dispersible granules (WG)
3. Wettable powders (WP)
4. Flowable or suspension concentrates (SC)
5. Emulsifiable concentrates (EC) (FMC Clodinafop 240)
6. Water based or soluble concentrates
7. Oils and wetters – e.g. Hasten, Cropwett

It is important to ensure that each individual component of the tank mix is fully dissolved and in solution before the next product is added to the tank mix, otherwise mixing problems may occur.

## Minimum Oil Volumes

The minimum amount of oil to be applied with FMC Clodinafop 240 will depend on the type of oil used. When applying FMC Clodinafop 240 using low water volumes, DO NOT use less than the minimum oil volumes specified below:

- For oils normally applied at 1% v/v (e.g. DC-Trate), DO NOT apply less than 500 mL oil/ha.
- For oils normally applied at 0.5% v/v (e.g. Hasten), DO NOT apply less than 250 mL oil/ha.

## CLEANING SPRAY EQUIPMENT

After using FMC Clodinafop 240, empty the tank completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean any filters in the tank, pump, line and nozzles.

**To rinse:** After cleaning the tank as above, quarter fill the tank with clean water and circulate through the pump, lines, hoses and nozzles. Drain and repeat the rinsing procedure twice.

**To decontaminate:** Before spraying cereals (except wheat), maize, sorghum or other sensitive crops, wash the tank and rinse the system as above. Drain and repeat the rinsing procedure. Then quarter fill the tank and add a liquid alkali detergent (e.g. SURF, OMO, DRIVE) at 0.5 L/100 L of water and circulate throughout the system for at least fifteen minutes. Drain the whole system. Remove filters and nozzles and clean them separately. Finally flush the system with clean water and allow to drain. Dispose of all water used for cleaning in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots.

## APPLICATION

**Ground Application:** Boom spray with flat fan nozzles. Ensure good spray coverage is obtained. Apply using 50 to 110 L water per hectare. The ideal droplet size is 200 to 300 microns VMD.

**Aircraft Application:** For best results use 20 to 30 L water per hectare and spray at 2 m to 3 m above the crop. Ideal droplet size is 250 to 350 microns VMD. For rotary atomizers (micronairs) this can be achieved using blade angles of 55° to 65°. Where booms and nozzles are attached, flat fan nozzles with a spray angle of 65° to 90° should be used.

Avoid applying FMC Clodinafop 240 if wind speeds are greater than 5 m/sec. If spraying in calm conditions use larger droplets and reduce flying height.

## COMPATIBILITY

When FMC Clodinafop 240 is applied with compatible herbicides always use a recommended oil. Only use a 100% non-ionic surfactant when mixing with diflufenican based products.

**Grass Herbicides:** FMC Clodinafop 240 is compatible with diclofop methyl.

**Broadleaf Herbicides:** Some broadleaf weed herbicides are incompatible with FMC Clodinafop 240 because they reduce the effectiveness of FMC Clodinafop 240 or because in mixture they may cause crop yellowing. For the latest information on compatibility of FMC Clodinafop 240 with broadleaf herbicides refer to your reseller or FMC Crop Protection Pty Ltd.

**Incompatible:**

The following herbicides are known to be incompatible with FMC Clodinafop 240:

Diuron, Triasulfuron, bromoxynil + dicamba + MCPA and all 2,4-D formulations. Herbicides, which are incompatible with FMC Clodinafop 240, must be applied separately. In this situation, apply FMC Clodinafop 240 first and then allow at least 10 days between its application and application of the broadleaf weed herbicide.

**Insecticides:** FMC Clodinafop 240 is compatible with methidathion.

**PRECAUTIONS - Re-entry Period**

DO NOT enter treated areas without protective clothing until the spray has dried.

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

DO NOT apply on or near shrubs, trees, lawns or crops other than wheat. DO NOT drain or flush equipment on or near desirable trees or other plants, where their roots may extend, or in situations where by movement of soil or by seepage absorption of the herbicide may occur.

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

**PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**

DO NOT apply to irrigation drains or channels. DO NOT contaminate dams, streams, creeks and rivers with the chemical, spray mixture, used containers or equipment washings.

**STORAGE AND DISPOSAL**

Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

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 deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available bury the

empty packaging 500mm below the surface in disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in accordance with relevant Local, State or Territory government regulations. Do not burn empty containers or product.

**SAFETY DIRECTIONS**

Harmful if swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid inhaling spray mist. Avoid contact with eyes and skin. When opening the container, preparing spray and using the product wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, elbow-length butyl rubber gloves; and face shield or goggles.

If product gets on skin, immediately wash area with soap and water. If product gets in eyes, wash it out immediately with water. 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 Australia 13 11 26. If swallowed, do NOT induce vomiting. Give a glass of water. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

**MATERIAL SAFETY DATA SHEET**

For further information, refer to the Material Safety Data Sheet (MSDS), which is available from the supplier.

**WARRANTY**

FMC Crop Protection Pty Ltd makes no warranty expressed or implied, concerning the use of this product other than that indicated on the label. Except as so warranted the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

APVMA Approval No: 67810/56905

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In a Transport Emergency Dial <b>000</b> Police or Fire Brigade	<b>SPECIALIST ADVICE IN EMERGENCY ONLY</b> <b>1800 033 111</b> ALL HOURS – AUSTRALIA WIDE
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