

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

# **FREQUENCY® HERBICIDE**

## ACTIVE CONSTITUENT: 60 g/L TOPRAMEZONE 60 g/L CLOQUINTOCET-MEXYL SOLVENT: 320 g/L LIQUID HYDROCARBONS

GROUP 📙 HERBICIDE

For the control of certain broadleaved weeds including wild radish and suppression of wild oats in winter cereals as indicated in the Directions for Use table.

IMPORTANT: READ THIS LEAFLET BEFORE USING THIS PRODUCT

CONTENTS: 5L, 10L, 15L, 20L, 110L, 1000L

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APVMA Approval No.: 86267/115160



#### DIRECTIONS FOR USE

#### RESTRAINTS

DO NOT apply by aircraft

DO NOT apply after the 2-node stage (Z32)

DO NOT apply to crops that are stressed through disease, insect damage, frost, nutrient deficiencies, other herbicide use, excessively moist or dry conditions, or inappropriate soil type

DO NOT apply if rain is expected within 2 hours

DO NOT apply more than 1 application per season

DO NOT apply if heavy rains or storms are forecast within 3 days.

DO NOT irrigate to the point of runoff for at least 3 days after application.

#### Spray Drift Restraints

**DO NOT** apply with spray droplets smaller than a **MEDIUM** spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S572 Standard or the British Crop Production Council guideline.

DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour, as measured at the application site.

DO NOT apply during surface temperature inversion conditions at the application site.

Users of this product **MUST make an accurate written record** of the details of each spray application within 24 hours following application, and must **KEEP** this record for at least 2 years. The spray application details that must be recorded are:

- 1. date with start and finish times of application
- 2. location address and paddock(s) sprayed
- 3. full name of this product
- 4. amount of product used per hectare and number of hectares applied to
- 5. crop or situation and weed or pest
- 6. wind speed and direction during application
- 7. air temperature and relative humidity during application
- 8. nozzle brand, type, spray angle, nozzle capacity and spray system pressure measured during application
- 9. name and address of person applying this product. (Additional record details may be required by the state or territory where this product is used.)

#### MANDATORY NO-SPRAY ZONES

## NO-SPRAY ZONE FOR PROTECTION OF INTERNATIONAL TRADE

DO NOT apply if there are livestock, pasture or any land that is producing feed for livestock within 120 metres downwind from the application area.

## NO-SPRAY ZONES FOR PROTECTION OF THE TERRESTRIAL ENVIRONMENT

DO NOT apply if there are sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat within 10 metres (tank mix with bromoxynil) or 20 metres (tank mix with MCPA) downwind from the application area.



CROP	WEEDS	WEED	RATE	CRITICAL COMMENTS
		STAGE		
Wheat	Wild radish	Up to the 6- leaf stage	200 mL/ha	Apply to actively growing weeds, free from
Barley	(Raphanus raphanistrum)	ical stage	+ 900 mL/ha to	stress.
Durum	raphanistrum		1.2 L/ha Bromicide <sup>®*</sup> 200	Use the higher rate of bromoxynil under
			Selective Herbicide	high populations and where conditions
			(200 g/L bromoxynil	are less than ideal such as climatic
			product)	stress or plant shading.
			+	
			1% Hasten or similar	Apply to crops from the 2-leaf stage
			MSO adjuvant	(Z12) but prior to the 2-node stage
	Bifora ( <i>Bifora testiculata</i> ),	Up to the 6-	200 mL/ha	(Z32).
	Bindweed/buckwheat	leaf stage	+ 900 mL/ha to	Transient bleaching of the crop may
	(Fallopia convolvulus),		1.2 L/ha Bromicide <sup>®</sup> * 200	occur, particularly under cold or frosty
	Capeweed (Arctotheca		Selective Herbicide	conditions and can be exacerbated in
	calendula), Charladk (Sinanaia		(200 g/L bromoxynil	northern areas where frost/cold starts
	Charlock (Sinapsis arvensis),		product)	followed by warm bright sunlight days
	Deadnettle ( <i>Lamium</i>		+	follow. Trial data has shown that under
	amplexicaule),		1% Hasten or similar	these conditions final yield will not be
	Fleabane ( <i>Conyza</i> spp.),		MSO adjuvant	impacted.
	Fumitory ( <i>Fumaria</i> spp.),			
	Pimpernel (Anagallis			
	arvensis),			
	Shepherd's purse			
	(Capsella bursa-pastoris),			
	Sow thistle/milk thistle			
	(Sonchus oleraceus),			
	Stinging nettle			
	(Urtica dioica),			
	Subterranean Clover			
	(Trifolium subterraneum),			
	Tares/vetch ( <i>Vicia sativa</i> ),			
	Turnip weed ( <i>Rapistrum</i>			
	rugosum),			
	Wireweed ( <i>Polygonum</i>			
	aviculare)			



CROP	WEEDS	WEED STAGE	RATE	CRITICAL COMMENTS
Wheat Barley	Deadnettle ( <i>Lamium</i> amplexicaule),	Up to the 6- leaf stage	200 mL/ha +	Apply to actively growing weeds, free from stress.
Durum	Fumitory ( <i>Fumaria</i> spp.), Shepherd's purse ( <i>Capsella bursa-pastoris</i> ), Sow thistle/milkthistle ( <i>Sonchus oleraceus</i> ), Stinging nettle ( <i>Urtica</i> )		440 mL to 600 mL/ha Polo®* 570 LVE Herbicide (570 g/L L.V.E MCPA product)	Use the higher rate of MCPA LVE under high populations and where conditions are less than ideal such as climatic stress or plant shading. Apply to crops from the 3-leaf stage (Z13) but prior to the 2-node stage (Z32).
	urens), Turnip weed (Rapistrum rugosum), Wild radish (Raphanus raphanistrum), Wireweed (Polygonum aviculare)		+ 1% Hasten or similar MSO adjuvant	Transient bleaching of the crop may occur, particularly under cold or frosty conditions and can be exacerbated in northern areas where frost/cold starts followed by warm bright sunlight days follow. Trial data has shown that under these conditions final yield will not be impacted.
Wheat Barley Durum	Suppression of seed set in wild oats in northern NSW and Qld cropping zones where <i>Avena sterilis</i> is dominant in targeted population		200 mL/ha + 900 mL/ha to 1.2 L/ha Bromicide®* 200 Selective Herbicide (200 g/L bromoxynil product) + 1% Hasten or similar MSO adjuvant	Frequency <sup>®</sup> Herbicide will provide useful suppression of seed set in wild oats. Apply to actively growing weeds, free from stress. Apply to crops from the 2-leaf stage (Z12) but prior to the 2-node stage (Z32). Significant bleaching and reduction of growth of wild oats will occur, resulting in death of some plants and a significant reduction in flowering and seed set of surviving plants, however complete control of wild oats may not be seen. Trials have shown that consistency of seed set reduction on wild oats in southern regions where <i>Avena fatua</i> is dominant have has been greatly reduced compared to fields in the northern cropping area where <i>Avena sterilis</i> is dominant. Where wild oats are a major target either a split application or tank mix with a compatible wild oat control product is recommended Transient bleaching of the crop may occur, particularly under cold or frosty conditions and can be exacerbated in northern areas where frost/cold starts followed by warm bright sunlight days follow. Trial data has shown that under these conditions final yield will not be impacted.



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

#### WITHHOLDING PERIOD

**HARVEST**: NOT REQUIRED WHEN USED AS DIRECTED **GRAZING**: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 6 WEEKS AFTER APPLICATION. WHEN APPLYING WITH A TANK MIX PRODUCT, OBSERVE THE GRAZING WITHHOLDING PERIOD FOR THE TANK MIX PRODUCT IF THIS IS LONGER THAN 6 WEEKS

## **EXPORT SLAUGHTER INTERVAL (ESI) 14 DAYS**

Livestock that has grazed on or been fed treated crops should be placed on clean feed for 14 days prior to slaughter.

#### **GENERAL INSTRUCTIONS**

FREQUENCY<sup>®</sup> Herbicide is a post-emergence, contact foliar-absorbed herbicide and will not control weeds which emerge after application. FREQUENCY<sup>®</sup> Herbicide will provide rapid bleaching of the target weeds. When mixed with bromoxynil according to the label, this additional activity will lead to rapid burning of target weeds. Both FREQUENCY<sup>®</sup> Herbicide and bromoxynil are light activated herbicides. Faster and more complete activity will be seen in higher light conditions. Due to the contact nature of FREQUENCY<sup>®</sup> Herbicide applications early in the season where better coverage is possible will result in better control. In some instances, complete control of weeds may not be seen, however a significant reduction in biomass will be observed and weeds will likely be uncompetitive with the crop.

To ensure thorough weed coverage, FREQUENCY<sup>®</sup> Herbicide should be applied in a minimum of 80L/ha water.

## MIXING

Half fill the spray tank with clean water. Commence agitation and add the required amount of product to the tank. Maintain agitation whilst filling the tank and throughout the spraying operation.

FREQUENCY<sup>®</sup> Herbicide is a suspo-emulsion formulation. When using in a tank mix with other herbicides the following mix order should be observed;

- 1. half fill the spray tank;
- 2. add any granule (WG) formulated products first and allow dispersion, followed by any suspension concentrates (SC/flowable);
- 3. add any water-soluble salts;
- 4. add FREQUENCY® Herbicide and any EC formulations;
- 5. add any adjuvants as recommended.

#### Adjuvants

FREQUENCY<sup>®</sup> Herbicide requires the use of an MSO type adjuvant such as Hasten to allow better uptake into the target weed for full efficacy. Use of non-ionic surfactants and mineral oil based adjuvants will likely result in reduced efficacy.

## APPLICATION

*Ground application:* Apply in 80-150 L of water per hectare using a nozzle that will deliver a MEDIUM spray quality as defined by ASAE S572 Standard. The use of flat fan, air induction nozzles is recommended. In



advanced or dense weed infestations and/or dense crop canopies, increase the water volume to ensure adequate coverage.

#### **RE-ENTRY PERIOD**

Do not allow entry into treated areas until spray has dried. If prior entry is necessary wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

#### COMPATIBILITY

FREQUENCY® Herbicide is physically compatible with Axial®\*, Bromoxynil (including Bromicide®\* 200 Selective Herbicide, Bronco®\* 200 Herbicide, Genfarm Bromo 200 Herbicide, Titan Bromoxynil 200 Selective Herbicide), MCPA L.V.E (including Polo®\* 570 LVE Herbicide, Nufarm LVE Agritone®\* Selective Herbicide, Genfarm MCPA LV 570 Herbicide, Titan LVE MCPA 570 Herbicide, Adama MCPA LVE 570 EC Herbicide), Metsulfuron (Ally®\*, Associate®\*), Jaguar®\*, Sencor®\* 480 SC, Tigrex®\* and Topik®\* 240 EC.

Product Use	Mix Partner Product	Comments	
FREQUENCY®	Ally®*, Associate®*	Observe use restrictions and plant back	
Herbicide	600g/kg Metsulfuron	comments on mix partner labels.	
	Tigrex <sup>®*</sup>		
+ Bromoxynil	250g/L MCPA as 2-ethylhexyl ester +	Mixtures with picolinofen or diflufenican may	
(200g/L bromoxynil	25g/L diflufenican	cause increased foliar burn, however crop	
as N-octanoyl ester)	Sencor®* 480	yield will not be adversely affected.	
	480g/L metribuzin		
+ Hasten Adjuvant	Topik®* 240		
	240g/L clodinafop-propargyl		
	+ 60g/L cloquintocet		
	Axial <sup>®</sup> *		
	100g/L pinoxaden + 25g/L cloquintocet		
	MCPA L.V.E		
	570 g/L L.V.E MCPA		
	Opera <sup>®</sup> Fungicide		
	85g/L pyraclostrobin + 62.5g/L epoxiconazole		
	PropiMax <sup>®*</sup> Fungicide		
	435g/L propiconazole		
	Liquid urea ammonium nitrate fertilizer (UAN)	Increased crop leaf burning may occur,	
	(Easy N <sup>®</sup> *)	however yields will not be negatively	
		impacted. Consult BASF staff for full	
		compatibility details when utilising Easy N <sup>®</sup> in	
		mixes with herbicide combinations.	



Product Use	Mix Partner Product	Comments	
FREQUENCY®	Ally®*, Associate®*	Observe use restrictions and plant back	
Herbicide	600g/kg Metsulfuron	comments on mix partner labels.	
	Jaguar <sup>®*</sup>		
+ MCPA (L.V.E) -	25g/L diflufenican +	Mixtures with picolinofen or diflufenican may	
(570g/L MCPA as 2-	250g/L Bromoxynil present as the octanoate	cause increased foliar burn, however crop yield will not be adversely affected.	
ethylhexyl ester)	Sencor®* 480		
	480g/L metribuzin		
+ Hasten Adjuvant	Topik®* 240		
	240g/L clodinafop-propargyl +		
	60g/L cloquintocet		
	Axial <sup>®</sup> *		
	100g/L pinoxaden + 25g/L cloquintocet		
	Bromoxynil		
	200g/L Bromoxynil		
	Opera <sup>®</sup> Fungicide		
	85g/L pyraclostrobin + 62.5g/L epoxiconazole		
	PropiMax <sup>®</sup> * Fungicide		
	435g/L propiconazole		
	Liquid urea ammonium nitrate fertilizer (UAN)	Increased crop leaf burning may occur,	
	(Easy N <sup>®</sup> *)	however yields will not be negatively impacted.	
		Consult BASF staff for full compatibility details	
		when utilising Easy N <sup>®</sup> in mixes with herbicide	
A a watan awalitu aga i		combinations.	

As water quality can influence compatibility, it is recommended that mixtures should be bottle-tested in the water intended for spraying, prior to mixing commercial quantities.

## **CROP SAFETY**

DO NOT apply to crops undersown with legumes and other broadleaf fodder.

Following application, some transient bleaching (white spotting and/or mottling) of cereal foliage may occur especially with high light activity on young crops. This bleaching is confined to leaves present at application. The development of the crop and subsequent new growth is unaffected in crops growing free of stress. Symptoms will be more pronounced and persistent in crops that are growing under stress, particularly under frost conditions (see Restraints).

## SPRAYER CLEANUP

Following use, the sprayer should be cleaned before spraying sensitive broadleaf crops. Empty the tank completely and drain the whole system. Quarter fill the tank with clean water directing stream onto inside of tank. Circulate through the pump, the hoses and nozzles then drain. Repeat if necessary. Finally remove and clean all filters (tank, in-line and nozzle) separately. This will provide an effective cleaning technique for FREQUENCY<sup>®</sup> Herbicide. A boom cleaner may be used as part of the procedure.

## **HERBICIDE RESISTANCE WARNING**

## GROUP H HERBICIDE

FREQUENCY<sup>®</sup> Herbicide is a member of the benzoylpyrazole group of herbicides and acts by inhibiting 4hydroxyphynlpyruvate dioxygenase (4-HPPD). For weed resistance management FREQUENCY<sup>®</sup> Herbicide is a Group H herbicide. Some naturally occurring weed biotypes resistant to this product and other Group H 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 this product or other H herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, BASF Australia Limited accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

#### **Resistance Management**

Management of weed resistance to Group H herbicides is important to maintain this critical mode of action for broadleaf weed control and particularly for wild radish control. Where possible, FREQUENCY® Herbicide should be used as a part of an integrated weed management program which includes herbicides from other modes of action and non-chemical methods. CropLife resistance management strategies are available from BASF sales representatives and from CropLife at www.croplife.com.au.

## **CROP PLANT BACK & ROTATION RECOMMENDATIONS**

FREQUENCY<sup>®</sup> Herbicide does not provide long-term residual activity; however, certain crops show sensitivity to soil residues. Refer to the following table for application-to-sow intervals applicable to the maximum label rate.

Plant Back Interval	6 weeks	4 months	9 months
	after FREQUENCY®	after FREQUENCY®	after FREQUENCY®
	Herbicide application	Herbicide application	Herbicide application
Crop	Wheat (including durum)	Canola	All other crops
	Barley	Chickpeas	
	Maize	Faba beans	
		Field peas	
		Lentils	
		Lupins	
		Mungbeans	
		Safflower	
		Sorghum	
		Sunflower	
		Cotton	

Check the label of any product mixed with FREQUENCY<sup>®</sup> Herbicide, to determine any plant back periods or restrictions on use.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT

Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.

## STORAGE

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight.

## DISPOSAL

#### 5L, 10L, 15L, 20L

Triple-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 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

#### 110L

Empty container by pumping through the dry break Micro Matic connection system. DO NOT attempt to unscrew the Micro Matic valve or breach the locked filing point. DO NOT contaminate the container with water or other foreign material. Ensure that the Micro Matic coupler, pump, meter and hoses are disconnected, triple rinsed with clean water and drained after each use. When empty, or contents no longer required, return the container to the point of purchase. DO NOT dispose of undiluted chemicals on-site.

#### SAFETY DIRECTIONS

Harmful if inhaled. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. Do not inhale vapour. If product on skin immediately wash area with soap and water. If product in eyes, wash it out immediately with water. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow length chemical resistant gloves and face shield or goggles. If applying by boomspray equipment (open cab) wear cotton overalls buttoned to the neck and wrist (or equivalent clothing). Wash hands after use. After each day use, wash gloves, face shield or goggles and contaminated clothing.

#### **FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. *Phone Australia* 131126; *New Zealand* 0800 764 766. If swallowed, do NOT induce vomiting.

#### SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet available from your supplier.

#### CONDITIONS OF SALE

All conditions and warranties rights and remedies implied by law or arising in contract or tort whether due to the negligence of BASF Australia Ltd or otherwise are hereby expressly excluded so far as the same may legally be done provided however that any rights of the Buyer pursuant to non- excludable conditions or warranties of the Competition and Consumer Act 2010 or any relevant legislation of any State are expressly preserved but the liability of BASF Australia Ltd or any intermediate Seller pursuant thereto shall be limited if so permitted by the said legislation to the replacement of the goods sold or the supply of equivalent goods and all liability for indirect or consequential loss or damage of whatsoever nature is expressly excluded. This product must be used or applied strictly in accordance with the instructions appearing hereon. This product is solely sold for use in Australia and must not be exported without the prior written consent of BASF Australia Ltd.

## FREQUENCY HERBICIDE

#### 60 g/L TOPRAMEZONE 60 g/L CLOQUINTOCET-MEXYL 320 g/L LIQUID HYDROCARBONS

## HAZARD STATEMENT:

May be fatal if swallowed and enters airways. May damage the unborn child. Very toxic to aquatic life with long lasting effects.

## **PRECAUTIONARY STATEMENT:**

If medical advice is needed, have product container or label at hand.

## **PRECAUTIONARY STATEMENTS (Prevention):**

#### Store locked up.

## PRECAUTIONARY STATEMENTS (Response):

IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. If skin irritation occurs: Get medical advice/attention.



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Batch No: Date of Manufacture:

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We create chemistry

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