RLP
APPROVED

Company Name: SINOCHEM INTERNATIONAL AUSTRALIA PTY LTD
Product Name: KELPIE DFF + MCPA MX HERBICIDE
APVMA Approval No: 82058/104890

Label Name:	KELPIE DFF + MCPA MX HERBICIDE

Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Constituent Statements:	250 g/L MCPA present as the ethyl hexyl ester 25 g/L Diflufenican Solvents: 311 g/L Liquid hydrocarbons 150 g/L N-methyl-2-pyrrolidone

Mode of Action:	**GROUP F I HERBICIDE**

Statement of Claims:	For the control of certain broadleaf weeds in winter cereals and clover as specified in the Directions For Use table.

Net Contents:	5 - 1000L

Restraints:	DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions. DO NOT apply to crops under stress due to disease or insect damage. DO NOT apply to frost-affected crops or if frosts are imminent. DO NOT apply if heavy rain is expected within 4 hours.

Directions for Use:	This section contains file attachment. **File Name:** DIRECTIONS FOR USE.docx **File Size:** 21821 bytes

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

Withholidng Periods:	Crop harvest: NOT REQUIRED WHEN USED AS DIRECTED. All crops: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

Trade Advice:	

General Instructions:	This section contains file attachment. **File Name:** GENERAL INSTRUCTIONS_DFF_MCPA_REVISED.docx **File Size:** 19372 bytes

Resistance Warning:	KELPIE DFF + MCPA MX HERBICIDE is a member of the phenoxy and nicotinanilide groups of herbicides and acts by inhibiting carotenoid biosynthesis and disrupting plant cell growth. For weed resistance management, KELPIE DFF + MCPA MX HERBICIDE is both a Group F and a Group I herbicide. Some naturally occurring weed biotypes resistant to the product and other Group F and I 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 the product or other Group F or Group I herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Sinochem International Australia Pty Ltd accepts no liability for any losses that may result from the failure of the product to control resistant weeds.

Precautions:	

Protections:	PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures. Avoid spray drift and vapour movement onto susceptible crops such as cotton, tobacco, tomatoes, vines, lupins, fruit trees and ornamentals. PROTECTION OF LIVESTOCK Grazing Precation: Sprayed weeds may become more palatable to stock and a higher intake of some weeds may result in stock poisoning and death from causes such as nitrate poisoning. Care should be taken especially where capeweed, Paterson's curse and variegated thistles predominate in the pasture. Avoid graxing with young or breeding stock. Do not graze horses or pigs on Paterson's curse. If in doubt, contact your nearest Department of Agriculture. PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Dangerous to fish. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

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 a 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. FOR REFILLABLE CONTAINERS: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

Safety Directions:	Harmful if swallowed. Will damage the eyes. Will irritate the skin. Avoid contact with eyes and skin. DO NOT inhale vapour. When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist, washable hat, elbow length PVC gloves and face shield or goggles. 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 and contaminated clothing.

First Aid Instructions:	If poisoning occurs contact a doctor or Poisons Information Centre (Phone Australia 131126). If swallowed, DO NOT induce vomiting. Give a glass of water. If in eyes, wash out immediately with water.

First Aid Warnings:	

DIRECTIONS FOR USE

CROP	WEEDS	WEED STAGE	STATE	RATE	CRITICAL COMMENTS
CEREALS Wheat, Barley, Oats, Triticale, Cereal Rye (including Cereals undersown with Clover) **PASTURE** Newly sown and established clover-based pasture, clover for hay and seed production	Wild Radish	Up to the 2 leaf stage and not more than 60 mm in diameter	WA only	250 mL/ha	**CROP STAGE** **Cereals** Up to 750 mL (3 leaf to fully tillered stage - Z13 to 30). Over 750 mL (5 leaf to fully tillered stage - Z15 to 30). Optimum results are achieved when sprayed at 3-5 leaf crop stage (generally 4-8 weeks post sowing). **WA only:** DO NOT apply to Barley or Kulin Wheat before the 5 leaf stage (Z15). **Warning:** KELPIE® DFF + MCPA MX HERBICIDE may cause transient crop yellowing of cereals. Some varieties of oats have not been tested. (Refer to **CROP TOLERANCE** section of **GENERAL INSTRUCTIONS**). **Clover** Application is recommended prior to the eighth trifoliate leaf stage, however, applications prior to the third leaf stage may result in crop damage especially under stressed conditions and in sandy soils. DO NOT apply to Annual Medics or Lucerne. **Warning:** KELPIE® DFF + MCPA MX HERBICIDE may cause transient crop yellowing of clover, and may affect growth and seed set of some varieties of clover. (Refer to **CROP TOLERANCE** section of **GENERAL INSTRUCTIONS**). **WEED STAGE** Apply when weeds are actively growing. In most situations the rate specified for each weed size will give satisfactory control. Under certain conditions such as: • high crop and weed density • late season germinations • abnormal weed growth (including early flowering), higher rates of product (up to the maximum rate of application specified for that weed) may be required. KELPIE® DFF + MCPA MX HERBICIDE will not effectively control: • regrowth of suppressed weeds; • transplanted weeds; • regrowth from rhizomes or roots; • weeds growing under stress from previous herbicide applications. *continued overleaf*
		Up to the 4 leaf stage and not more than 120 mm in diameter	All States	500 mL/ha	
		Up to the 6 leaf stage and not more than 150 mm in diameter		750 mL/ha	
		Up to the 8 leaf stage and not more than 180 mm in diameter		1.0 L/ha	
	Charlock, Hedge Mustard, Indian Hedge Mustard, Shepherd's Purse, Turnip Weed, Wild Turnip	Up to the 2 leaf stage and not more than 60 mm in diameter		500 mL/ha	
		Up to the 4 leaf stage and not more than 120 mm in diameter		750 mL/ha	
		Up to the 6 leaf stage and not more than 150 mm in diameter		1.0 L/ha	
	London Rocket	Up to the 5 leaf stage and not more than 120 mm in diameter	Qld only	750 mL/ha	
	Ward's Weed		SA only		
	Capeweed	Up to the 2 leaf stage and not more than 60 mm in diameter	All States	500 mL/ha	
		Up to the 4 leaf stage and not more than 120 mm in diameter		1.0 L/ha	
	Crassula	Up to the 2 leaf stage		500 mL/ha	
		Up to the 4 leaf stage		750 mL/ha	
	Prickly Lettuce	Up to the 2 leaf stage		500 mL/ha	
		Up to the 4 leaf stage		750 mL/ha	
		Up to the 6 leaf stage		1.0 L/ha	
	Dense-flower Fumitory	Up to the 2 leaf stage		750 mL/ha	
	Corn Gromwell, Saffron Thistle, Toad Rush			1.0 L/ha	
	Deadnettle		NSW, Vic, SA only		
	Sorrel	Up to the 2 leaf stage	Vic only	1.0 L/ha	
	Canola (rape)	Up to the 4 leaf stage	All States	500 mL/ha	
	Purple Goosefoot	Up to the 6 leaf stage	Qld only	500 mL/ha	
	Turnip Weed, Wild Turnip	Cotyledon to 2 leaf stage	NSW only (West of Newell Hwy.) SA only (Eyre peninsula north of the line between Venus Bay and Cowell)	350 mL/ha	

CROP	WEEDS	WEED STAGE	STATE	RATE	CRITICAL COMMENTS
CEREALS Wheat, Barley, Oats, Triticale, Cereal Rye	Fumitory	2-6 leaf stage	All States	500 mL/ha + 200 mL/ha terbutryn (500 g/L)	*from previous page* **GRAZING** Efficacy on larger weeds will be improved by grazing with normal levels of stock after the 7 day withholding period. Refer to **PROTECTION OF LIVESTOCK** for grazing precautions. **APPLICATION** Activity of this product will be reduced if weeds are stressed. Optimum results will be obtained if good soil moisture exists at and after application. Where crop or weed density is high, water volume should be increased. **WILD RADISH** KELPIE® DFF + MCPA MX HERBICIDE will provide residual control of Wild Radish for up to 4 weeks after application. Effective residual activity of this product may be reduced where: • rates lower than 1.0 L/ha are used; • dry conditions prevail; • poor coverage of the soil surface is achieved; • crop is planted in non-wetting sand; • soils contain a high content of organic matter. Optimum results will be obtained if good soil moisture exists at and after application.
CEREALS Wheat, Barley, Oats, Triticale, Cereal Rye (including cereals undersown with clover) **PASTURE** Newly sown and established clover based pasture, clover for hay and seed production	**SUPPRESSION OF THE FOLLOWING WEEDS**				
	Saffron Thistle	Up to the 6 leaf stage	All States	1.0 L/ha	
	Chickweed, Fireweed, Hexham Scent (King Island Melilot), Iceplant, Mouseeared Chickweed, Nightscented Stock, Paterson's Curse, Peppercress, Skeleton Weed, Long Storksbill, Volunteer Lupins	Up to the 4 leaf stage			
	Wireweed (Hogweed)			750 mL/ha	
	Common Sowthistle (Milk Thistle), Cowvine, Dock, Doublegee (Spiny Emex), Fat Hen, Horehound, Hyssop Loosestrife, Marshmallow, Rough Poppy, Scarlet Pimpernel, Stemless Thistle, Tree Hogweed, Variegated Thistle, Vetch (Tares)	Up to the 2 leaf stage		1.0 L/ha	
CEREALS Wheat, Barley, Oats, Triticale, Cereal Rye	Wild Radish	Up to the 4 leaf stage and not more than 120 mm in diameter		350 mL/ha plus 200 mL/ha MCPA LVE (500 g/L)	**Refer also to all Critical Comments relating to weed stage, grazing, application and Wild Radish above.** • Reduced efficacy (suppression only) may be achieved on Wild Radish larger than 8 leaf or greater than 180 mm in diameter. DO NOT use this tank-mix if cereals are undersown with lucerne or annual medics. **Crop Stage** 350 mL KELPIE® DFF + MCPA MX HERBICIDE + 200 mL MCPA LVE: Apply from 3 leaf to fully tillered (Zadok's Z13 to Z30). 500 mL KELPIE® DFF + MCPA MX HERBICIDE + 200 mL MCPA LVE: Apply from 3 leaf to fully tillered (Zadok's Z13 to Z30). 500 mL KELPIE® DFF + MCPA MX HERBICIDE + 400 mL MCPA LVE: Apply from 5 leaf stage to fully tillered (Zadok's Z15 to Z30). Optimum results are achieved when sprayed at 3-5 leaf crop stage (generally 4-8 weeks post sowing). **WA only:** DO NOT apply to Barley or Kulin Wheat before the 5 leaf stage (Z15).
		Up to the 6 leaf stage and not more than 150 mm in diameter		500 mL/ha plus 200 mL/ha MCPA LVE (500 g/L)	
		Up to the 8 leaf stage and not more than 180 mm in diameter*		500 mL/ha plus 400 mL/ha MCPA LVE (500 g/L)	

CROP	WEEDS	WEED STAGE	STATE	RATE	CRITICAL COMMENTS
					Warning: KELPIE® DFF + MCPA MX HERBICIDE may cause transient crop yellowing of cereals. Some varieties of oats have not been tested. (Refer to **CROP TOLERANCE** section of **GENERAL INSTRUCTIONS**). Observe instructions also on KELPIE® DFF + MCPA MX HERBICIDE product label.

GENERAL INSTRUCTIONS

TOLERANCE
Some pre-emergence herbicides, such as atrazine, can cause stress to certain crops resulting in an increase in crop damage when using this product. Subterranean clover is particularly sensitive.

CEREALS
After application some transient crop yellowing may occur. This usually appears as yellow or white banding on leaves. Provided the crop is not under stress from pre-emergent herbicide, root disease, insect damage, frost, dry or excessively moist conditions, the development of the crop and subsequent growth will be unaffected.

Warning (Oats): The tolerance of oat varieties Esk and Nile (the two main varieties grown in Tasmania) to KELPIE® DFF + MCPA MX HERBICIDE has not been tested. Test a small area of crop before using KELPIE® DFF + MCPA MX HERBICIDE over large areas. Consult your local Sinochem International Australia Pty Ltd representative for advice on specific varieties.

PASTURE
The tolerance of clover varieties to KELPIE® DFF + MCPA MX HERBICIDE can vary with rate of application, soil type, crop health, stage of growth and degree of moisture and temperature stress.

Warning: KELPIE® DFF + MCPA MX HERBICIDE may result in transient crop yellowing and suppression of growth with a resultant initial reduction in dry matter, particularly at rates in excess of 500 mL/ha and in areas of double spray. For this reason we recommend application prior to the 8 trifoliate leaf stage.

However, at the lower rates (500 mL/ha and less) and under normal growing conditions, subsequent growth and seed yield should not be affected. Under normal growing conditions, the following varieties have shown acceptable levels of foliage tolerance to KELPIE® DFF + MCPA MX HERBICIDE applied at 500 mL/ha:

- **ArrowLeaf:** Zulu
- **Balansa:** Paradana
- **Berseem:** Sacromonte
- **Persian:** Kyambro, Lupers, Maral
- **White:** Haifa
- **Subterranean Clover:** Daliak, Dalkeith, Denmark, Esperance, Geraldton, Goulburn, Karridale, Larissa, Leura, Mt.Barker, Nungarin, Rosedale, Seaton Park, Trikkala and Woogenellup.

The effects of KELPIE® DFF + MCPA MX HERBICIDE on clover seed yield have been tested on the following varieties. Under normal growing conditions they show acceptable levels of tolerance to KELPIE® DFF + MCPA MX HERBICIDE applied at 500 mL/ha:

- **Subterranean Clover:** Esperance, Goulburn, Larissa, Seaton Park and Trikkala.

Warning: Rose and Strawberry clover have shown increased sensitivity to KELPIE® DFF + MCPA MX HERBICIDE. KELPIE® DFF + MCPA MX HERBICIDE may affect the seed yield of Subterranean Clover variety Woogenellup. Some pasture grasses, including Phalaris and Cocksfoot, may show some initial reduction in vegetative growth after application of KELPIE® DFF + MCPA MX HERBICIDE. Care should be exercised if sensitive clover varieties or grasses are included in the pasture sward.

Varieties not listed should be tested before using KELPIE® DFF + MCPA MX HERBICIDE over large areas. Consult your local Sinochem International Australia Pty Ltd representative for advice on specific varieties.

SUBSEQUENT CROPS
To reduce effect on subsequent susceptible crops (e.g. canola), ensure thorough cultivation of soil prior to the sowing of these crops.

MIXING
To ensure even mixing, half fill the spray tank with clean water and add the required amount of product. Agitate thoroughly then add the remainder of the water. Agitate again before spraying commences.

Reseal part-used product container immediately after use. Spray mixtures containing KELPIE® DFF + MCPA MX HERBICIDE should not be left to stand overnight. Prolonged periods of exposure to cold temperatures could result in settling out of the product in the mixture.

Warning: The rubber components present in some spraying units may be affected by exposure to the solvents in KELPIE® DFF + MCPA MX HERBICIDE and some other agricultural products. To reduce this risk it is recommended that the spray unit be thoroughly washed with a boom cleaner and fresh water after use.

Contact the spray unit manufacturer to determine the suitability of the rubber components for use with agricultural products.

APPLICATION
Boom Sprayer: A minimum of 50 L of water per hectare should be used, however, for optimum results water rates of 70-100 L/ha are recommended. Increase the water volume if weed infestation is heavy or crop cover is dense. Complete coverage of weeds is essential.
Aircraft (NSW, Vic, SA only): Apply in a minimum of 30 L water per hectare. Effective weed control will only be achieved where good coverage of leaf surface is achieved.

COMPATIBILITY
When mixing with other herbicides, crop yellowing may be enhanced. When mixing with compatible products containing DICLOFOP-METHYL and FENOXAPROP-P-ETHYL some reduction in efficacy and speed of action of these products may occur. If the crop is stressed, the application of the herbicide tank-mixtures may cause yield-reduction. Growers should seek advice before spraying recently released cereal varieties.
If another herbicide is applied as a tank mix, observe the plantback restrictions on that label. DO NOT add surfactant when mixing KELPIE® DFF + MCPA MX HERBICIDE and compatible products containing METSULFURON-METHYL (Ally).

Warning: DO NOT use crop oils with KELPIE® DFF + MCPA MX HERBICIDE or KELPIE® DFF + MCPA MX HERBICIDE tank mixtures with other products in cereals. As formulations of other manufacturer's products are beyond the control of Sinochem International Australia Pty Ltd, all mixtures should be tested prior to mixing commercial quantities.