

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



ACTIVE CONSTITUENT: 666 g/L PROSULFOCARB + 333 g/L TRIALLATE

GROUP J HERBICIDE

For the pre-emergent control of Annual Ryegrass and the suppression of Barley Grass and Silver Grass in Barley and Wheat as specified in the Directions for Use Table.

IMPORTANT: READ ATTACHED LEAFLET BEFORE USE

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DIRECTIONS FOR USE

Restrains:

- DO NOT apply by aircraft.
- DO NOT apply to soils prone to waterlogging, sodic soils or soils affected by physical compaction.
- DO NOT apply if heavy rains or storms that are likely to cause runoff are forecast within 3 days.
- DO NOT irrigate to the point of runoff or at least 3 days after application.
- DO NOT make more than one application per year.
- DO NOT apply to waterlogged soils.
- DO NOT apply if heavy rains or storms that are likely to cause runoff are forecast within 2 days of application.

Spray Drift Restraints:

- DO NOT apply with spray droplets smaller than a COARSE spray droplet size category according to 'APVMA Compliance Instructions for Mandatory COARSE or Larger Droplet Size Categories' located under this title in the GENERAL INSTRUCTIONS section of this label.
- 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

DO NOT apply if there are sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat within 25 metres downwind from the application area.

DO NOT apply if there are aquatic and wetland areas including aquacultural ponds, surface streams and rivers within 25 metres downwind from the application area.

SITUATION AND CROP	WEEDS	RATE	CRITICAL COMMENTS
Barley, Wheat	Annual Ryegrass (<i>Lolium rigidum</i>) including Group D Resistant populations Suppression of: Barley Grass (<i>Hordeum spp.</i>), Silver Grass (<i>Vulpia spp.</i>)	2.25 - 3 L/ha	Apply immediately prior to sowing (within 24 hours) Incorporation by Sowing (IBS) methods should be utilised using suitable sowing equipment. Sufficient rainfall to thoroughly wet the top 2-3 cm of soil should occur within 10 days of application. COMPLETE INCORPORATION OF KELPIE® PRO-CARB DUO TL HERBICIDE IS ESSENTIAL FOR OPTIMAL WEED CONTROL. See GENERAL INSTRUCTIONS - INCORPORATION BY SOWING for details on IBC incorporation. Use the higher rate where adverse conditions and/or high weed seedbank numbers are present.

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

WITHHOLDING PERIODS

- GRAZING - CEREAL FORAGE: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 11 WEEKS AFTER APPLICATION.

GENERAL INSTRUCTIONS

KELPIE® PRO-CARB DUO TL HERBICIDE is a short residual, soil applied, pre-emergent herbicide that is absorbed by the roots and shoots (coleoptile) of germinating seedlings with inhibition of growth in the meristematic region. Upstream translocation in the plant occurs but movement in the phloem is very unlikely. Best activity can be expected from applications before or shortly after the germination of target weeds.

KELPIE® PRO-CARB DUO TL HERBICIDE should be applied to seedbed free of soil clods and emerged weeds. Product efficacy may be reduced by improper incorporation, high levels of crop or trash residues, stones or foreign matter and in areas of extremely high weed seed density such as header rows. For optimal efficacy and crop safety avoid shallow seeding and ensure accurate seed placement that avoids placement of seed in the herbicide band. Avoid water repellent soils, soils subject to water logging or where furrow walls are likely to collapse. Duration and effectiveness of weed control will depend on use rate, soil type and rainfall or irrigation after application. Adequate rainfall should occur within 10 days of application, as this herbicide requires sufficient available soil moisture to ensure soil movement and uptake by emerging weed seeds.

APVMA Compliance Instructions for Mandatory COARSE or Larger Droplet Size Categories

Important Information

These instructions inform users of this chemical product how to lawfully comply with the requirements of a COARSE or larger spray droplet size category for spray application.

Spray droplet size categories are defined in the ASAE S572 Standard (newer name may also be shown as ASABE) or the BCPC guideline. Nozzle manufacturers may refer to one or both to identify droplet size categories, but for a nozzle to comply with this requirement, the manufacturer must refer to at least one.

Complying with the label requirement to use a specific droplet size category means using the correct nozzle that will deliver that droplet size category under the spray operation conditions being used. The APVMA has approved only the following specific methods for choosing the correct nozzle. Use one of the methods specified in these instructions to select a correct nozzle to deliver a COARSE or larger droplet size category.

SECTION 1: Instructions for Ground Application – for COARSE droplet size or larger categories.

Mandatory Instructions for Ground Applications

USE ONLY nozzles that are the nozzles' manufacturer has rated to deliver a COARSE, a VERY COARSE or an EXTREMELY COARSE droplet size category as referenced to ASAE S572 or BCPC. Choose a nozzle specified to provide the droplet size category required in the label Spray Drift Restraints.

DO NOT use a higher spray system pressure than the maximum the manufacturer specified for the selected nozzle to deliver the droplet size category required in the label Spray Drift Restraints.

Crop Tolerance

DO NOT plant cereal crops at greater than 5 to 7 cm. Overspraying of headlands or corners may result in crop damage. On heavy clay soils, crop thinning may occur in wheel tracks.

The selectivity of KELPIE® PRO-CARB DUO TL HERBICIDE in cereals is a combination of positional and physiological selectivity. Positional selectivity must be maintained by sowing at adequate depth below the herbicide band. The physiological selectivity of KELPIE® PRO-CARB DUO TL HERBICIDE is given by the ability of cereals to metabolise the herbicide to inactive compounds more rapidly than susceptible weed species. Environmental factors such as rainfall events following application and soil type will influence product movement into the seed zone. Crop injury may occur when used in sandy soils with high leaching potential or in all soil types when heavy rainfall is received between sowing and emergence. Crop injury may also result from tank mixes with other herbicides or in the event of crop stresses including frost. Risk of crop damage may be exacerbated where varieties with short coleoptile length are planted in conjunction with the use of some fungicide seed treatments.

Soil Persistence and Following Crops

Under prolonged and extremely dry conditions, KELPIE® PRO-CARB DUO TL HERBICIDE may persist for several months.

Incorporation by Sowing (IBS)

Incorporation by Sowing (IBS) with knife or blade points. Working speed should ensure adequate incorporation of product but avoid soil throw into the adjacent seeding row. Use of presswheels will minimise potential for herbicide to be dragged back into seeding rows. Weed control may be reduced in seeding rows as chemical displacement from this zone occurs, concentrating the herbicide in crop inter-rows.

A knife or blade point is defined as being <12 mm in width, having no wings, inverted T or blade and is generally on a minimum 200 mm row spacing.

Stubble coverage above 40-50% ground coverage can reduce Weed control below acceptable levels.

KELPIE® PRO-CARB DUO TL HERBICIDE MUST BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF APPLICATION

Mixing

KELPIE® PRO-CARB DUO TL HERBICIDE is an emulsifiable concentrate that mixes readily with water. Fill the spray tank to one quarter full. Add KELPIE® PRO-CARB DUO TL HERBICIDE and continue adding water to make up to the final spray volume. Agitate while mixing and spraying. When tank mixing wettable powder or water dispersible granule formulations should be added to the tank first followed by suspension concentrates (flowables), water soluble salts then KELPIE® PRO-CARB DUO TL HERBICIDE or other emulsifiable concentrate formulations. Maintain thorough agitation during mixing and application. Agitate tank mixes vigorously if allowed to stand. **Note: Tank mix spray solutions should NOT be left standing in the vat overnight.**

Application

DO NOT apply by air.

Emerged weeds should be controlled either by prior cultivation/application of a knockdown herbicide or by the tank mixing of a knockdown herbicide with KELPIE® PRO-CARB DUO TL HERBICIDE.

Apply KELPIE® PRO-CARB DUO TL HERBICIDE by ground sprayer in 50 to 100 L of water per hectare. Water rate selection should be based on soil type and stubble load. Stubble loads above 40 to 50% ground coverage can reduce weed control below acceptable levels. Water volumes greater than 70 L/ha are recommended in order to reduce the impact of stubble in direct drill or minimum tillage systems. Spray rig booms should be fitted with flat fan nozzles delivering spray quality in the coarse to very coarse spray range. Use a spraying pressure of approximately 200-240 kPa. Avoid application under strong and/or gusty wind conditions.

Sprayer Clean Up

After using KELPIE® PRO-CARB DUO TL HERBICIDE, 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.

COMPATIBILITY

KELPIE® PRO-CARB DUO TL HERBICIDE is compatible with any of the following herbicides: glyphosate, 750 g/kg chlorsulfuron, 750 g/kg triasulfuron, 750 g/kg sulfosulfuron, 480 g/L trifluralin.

DO NOT tank mix with 2,4-D amine.

Always refer to plant back restrictions on the label of the tank mix partner.

As formulations of other manufacturers' products are beyond the control of Sinochem International Australia Pty Ltd and water quality varies with location, all mixtures should be tested prior to mixing commercial quantities.

RESISTANCE MANAGEMENT

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 1 application of a **Group J** Herbicide with the inhibition of fat acid synthesis 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, KELPIE® PRO-CARB DUO TL HERBICIDE or other **Group J** Herbicides should not be used. Strategies to minimise the risk of herbicide resistance are available. The above recommendations should be incorporated into an Integrated Weed Management (IWM) Program that uses a diverse range of options to manage grass weeds and avoids over reliance on any one method of control. Consult your local farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local Sinochem International Australia Pty Ltd representative for details.

Tank Mixes

Application of KELPIE® PRO-CARB DUO TL HERBICIDE at less than 2.25 L/ha when tank mixing for Annual Ryegrass control **WILL NOT** be effective in the control of **Group D** resistant populations nor to delay the onset of herbicide resistance development. Tank mixing of herbicides is only effective in managing resistance where a lethal dose rate of each herbicide is applied.

RESISTANT WEEDS WARNING

GROUP	J	HERBICIDE
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KELPIE® PRO-CARB DUO TL HERBICIDE are members of the thiocarbamate groups of herbicides. KELPIE® PRO-CARB DUO TL HERBICIDE is an inhibitor of mitosis via fatty acid inhibition. For weed resistance management KELPIE® PRO-CARB DUO TL HERBICIDE is a Group J Herbicide. Some naturally occurring weed biotypes resistant to KELPIE® PRO-CARB DUO TL HERBICIDE and other Group J 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 weeds will not be controlled by KELPIE® PRO-CARB DUO TL HERBICIDE or other Group J 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 KELPIE® PRO-CARB DUO TL HERBICIDE to control resistant weeds.

Advice as to strategies and alternative treatments that can be used should be obtained from your local farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local Sinochem International Australia Pty Ltd representative.

PRECAUTIONS

DO NOT use open mixing and loading.
DO NOT apply by open cab ground boom.

INTEGRATED PEST MANAGEMENT

Toxic to beneficial arthropods. Not compatible with Integrated Pest Management (IPM) programs utilising beneficial arthropods. In-crop residues are expected to be safe for beneficial arthropods within X days after the last application. Minimise spray drift to reduce harmful effects on beneficial arthropods in non-crop areas.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

PROTECTION OF HONEY BEES AND OTHER INSECT POLLINATORS

Highly toxic to bees.
DO NOT spray while bees are actively foraging. DO NOT allow spray drift to flowering weeds or flowering crops in the vicinity of the treatment area. Before spraying, notify beekeepers to move hives to a safe location with an untreated source of nectar and pollen, if there is potential for managed hives to be affected by the spray or spray drift. Risk to bees is reduced by spraying in early morning and late evening while bees are not foraging.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT sow susceptible crops within 6 months of herbicide application.
DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause spray to drift onto adjacent areas, particularly wetlands, waterbodies or watercourses.
DO NOT allow spray to drift onto adjacent fallow land.
DO NOT apply on or near shrubs, trees, lawns or crops other than Barley or 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.

STORAGE AND DISPOSAL

The method of disposal of the container depends on the container type. Read the Storage and Disposal instructions on the label that is attached to the container.

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

Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemical 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 for appropriate disposal 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.

Envirodrum 110 L Mini Bulk Returnable Container Only

DO NOT tamper with the Micro Matic valve or the security seal. DO NOT contaminate the Envirodrum with water or any 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.

Refillable containers (1000L only)

Empty contents fully into application equipment. Close all valves and return to point of sale for refill or storage.

Harmful if swallowed.

Causes skin irritation.

May cause damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

Do not breathe fumes, mists, vapours or spray.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment. Collect spillage.

In case of fire, use carbon dioxide, foam, water fog. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used.

IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation or rash occurs: Get medical advice.

If eye irritation persists: Get medical advice.

Get medical advice or attention if you feel unwell.

Refer to Safety Data Sheet before use. Do not handle until all safety precautions have been read and understood.

SAFETY DIRECTIONS

Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. When opening the container and preparing the spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length chemical resistant gloves. Wash hands after use. After each day's use wash gloves and contaminated clothing.

SAFETY DATA SHEET

For further information refer to the Safety Data Sheet (SDS), which can be obtained from your supplier or from the Sinochem Australia website at: www.sinochem.com.au

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. **Phone Australia 13 11 26.**

IN A TRANSPORT EMERGENCY
DIAL 000
POLICE OR FIRE BRIGADE

FOR SPECIALIST ADVICE
IN AN EMERGENCY DIAL
1800 033 111
24 HOURS AUSTRALIA WIDE

LIMITATION OF LIABILITY

With the express exception of liabilities created by the Competition and Consumer Act 2010 (Cth)(including the Australian Consumer Law) or relevant State legislation which cannot be excluded, restricted or modified, none of Sinochem International Australia Pty Ltd or any of its affiliates ("Sinochem") or any manufacturer of any component of the product shall be liable for any loss or damage (including consequential loss or damage), injury or death connected with, or arising out of, the product, regardless of the way in which it arises (including by way of negligence).

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