

**DANGER - COMBUSTIBLE LIQUID**  
**TOXIC - KEEP OUT OF REACH OF CHILDREN. ECOTOXIC**

  
**ravensdown**

**ORGANOPHOSPHATE INSECTICIDE**

# Toppel 500

A broad-spectrum  
insecticide for the control of  
insect pests in agricultural  
and horticultural crops

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**ACTIVE INGREDIENT:**

Contains 500g/litre chlorpyrifos  
in the form of an emulsifiable  
concentrate.

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**Registrant: Ravensdown Ltd**

292 Main South Road  
Hornby, Christchurch 8042  
New Zealand  
Phone: 03 353 4600

[ravensdown.co.nz](http://ravensdown.co.nz)

BATCH:

D.O.M:

**NET CONTENTS**  
**20 Litres**

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# TOPPEL | READ LABEL CAREFULLY BEFORE USING

**This product must not be used for any purpose, or in any manner, contrary to the label unless authorised under appropriate legislation.**

**HAZARD CLASSIFICATION: 3.1D, 6.1C, 6.3B, 6.4A, 6.8B, 6.9A, 9.1A, 9.2B, 9.3A, 9.4A**

**QUALIFIED PERSON:** This product must be under the control of a Qualified Person or Contractor, as per Part 4C of the Hazardous Property Controls EPA Notice.

## FLAMMABILITY

**WARNING - COMBUSTIBLE LIQUID.** Keep away from sources of ignition.

## TOXICITY

**Toxic** - May be fatal if swallowed and enters airways. Toxic if swallowed, inhaled or absorbed through the skin. May cause organ damage from repeated oral exposure at high doses.

**Harmful** - May cause skin and eye irritation. May cause reproductive/development damage from repeated oral exposure.

## ECOTOXICITY

**Very toxic to aquatic organisms.** Avoid contamination of any water supply with chemical or empty container. Do not apply directly into or onto water.

**Toxic to the soil environment.**

**Very toxic to terrestrial vertebrates and terrestrial invertebrates. This product is very toxic to bees.** Do not apply this product to any plant or tree likely to be visited by bees a) at the time of application, or b) immediately after application until the spray has dried, or c) in areas where bees are foraging.

## HANDLING PRECAUTIONS

### STORAGE

Do not store near heat or flame. Keep out of reach of children. Store in accordance with NZS 8409 Management of Agrichemicals.

Store in original container tightly closed in a locked, dry, cool, well ventilated area away from sources of heat and ignition, foodstuffs, fertilisers and seeds. Avoid storing this product with Class 1, 2, 3.2, 4 or 5 substances. Stores containing 100L of TOPPEL 500 are subject to signage and secondary containment. More than 100L require emergency response plans. Stores containing 500L of TOPPEL 500 must have at least 2 fire extinguishers.

### PERSONAL PROTECTION

Avoid contact with skin, eyes and do not inhale spray mist. When mixing, loading or applying wear full protective clothing such as chemically resistant gloves (PVC or neoprene), boots (and socks) and coveralls, eye protection, respirator and chemical resistant headgear. Wash splashes of concentrate from skin and eyes immediately. Remove protective clothing and wash hands and face thoroughly before meals and after work. Do not eat, drink or smoke while using.

### EQUIPMENT

Apply using well maintained and accurately calibrated equipment. Flush equipment thoroughly with clean water after use. In case of fire: Use foam, carbon dioxide or dry chemical for extinction.

### RECORD KEEPING

Records of use as described in NZS 8409 Management of Agrichemicals must be kept.

### DISPOSAL

Triple rinse container and add rinsate to spray tank. Triple rinsed containers containing the Agrecovery logo on the label and that are free of all residues and have an intact legible label may be taken to an Agrecovery collection site for disposal. Otherwise crush or puncture and bury in an approved landfill. Do not burn container. Do not use container for any other purpose. Dispose of product only by using according to label directions or dispose of safely at a managed landfill.

## FIRST AID

If medical advice is needed, have product container or label at hand. If swallowed, Rinse mouth. DO NOT induce vomiting. Contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician. If skin irritation occurs: Get medical attention. If splashed in eyes, flush with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. If inhaled, move the patient to fresh air immediately. Begin artificial respiration if breathing has stopped. Immediately call a POISON CENTER or doctor/physician. For advice, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor if you are exposed or concerned.

## SPILLAGE

In case of spillage, extinguish all ignition sources. Wear appropriate protective clothing and prevent material from entering waterways. Exclude non-essential people from the area. Prevent material coming into contact with Class 1, 2, 3.2, 4 or 5 substances. Contain liquid spills and absorb with inert material such as soil or sand and place in waste containers. Wash area with water and absorb with further inert material. Dispose of waste safely in an approved landfill.

Registered Pursuant to the ACVM Act 1997 P8457.

See [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz) for registration conditions.

Approved pursuant to the HSN0 Act 1996, Code: HSR000224.

See [www.epa.govt.nz](http://www.epa.govt.nz) for approval controls.

PHONE **0800 100 123**



Agrecovery is available on plastic containers up to 60L and for plastic or steel large drums from 61L - 1000L.

## EMERGENCY RESPONSE

In transport emergency call 111, Police or Fire Brigade. For 24hr specialist advice in an emergency only call 0800 CHEMCALL (0800 243 622).

### SAFETY DATA SHEET

If additional safety information is required, refer to the Safety Data Sheet. For a copy contact the customer centre on 0800 100 123.

### TRANSPORT

Do not carry this product on a passenger service vehicle.

### PRODUCT INFORMATION

Toppel 500 is an organophosphate insecticide that works directly on insect pests through contact and vapour action. It also works as a stomach poison when ingested by insects. Toppel 500 also remains active in soil for several days.

### MAXIMUM APPLICATION RATE

A maximum application rate of 1500gai/ha (3L of product/ha) has been set for this product.

### SPRAY DRIFT MITIGATION

The person applying this substance must not cause adverse effects beyond the boundary of the treated property, and must also avoid adverse effects from spray drift occurring. Mitigation measures employed must be recorded as part of the application records.

### NOTIFICATION

Notification is only required for aerial application.

For aerial application, the person applying this substance must:

- give written notice to anyone likely to be directly affected (such as landowners or occupiers of land, property, buildings or houses immediately next to the application area).
- Ensure notification is given at least two working days before, but no more than four weeks before, each application of the product
- Ensure the written notice includes:
  - a) where the product will be applied
  - b) the date and approximate duration of each application
  - c) the steps that notified parties should take to avoid exposure
  - d) the name of the organisation(s) applying the product
  - e) contact details for the person in charge of the application (phone, email or postal address, including a contact number for immediate contact during application).

### RESTRICTED ENTRY INTERVAL (REI) - 24 Hours

A restricted entry interval is the period of time that people must not enter the treated area.

The person in charge is responsible for making sure no person enters the application area before the end of the REI (24 hours). For indoor areas, a person may only enter the indoor treated area if PPE and RPE is worn as if they were applying this substance, and they are entering to carry out tasks associated with the ventilation of the buildings or building structure.

### MIXING

Partly fill the spray tank. Add the required amount of Toppel 500 and start agitation. Complete filling the spray tank and maintain agitation until spraying is complete.

### COMPATIBILITY

Toppel 500 is compatible with most commonly used insecticides and fungicides. It should not be mixed with highly alkaline materials such as Bordeaux mixture or lime sulphur.

### SHELF LIFE

When stored appropriately this product should show no significant degradation for three years from the date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

### GENERAL DIRECTIONS

Unless otherwise indicated, rates suggested are for high volume spraying to the point of run off. For concentrate spraying, adjust dilution rates accordingly. For broadcast application, use 100-200 litres of water/ha through ground spray equipment and 50-100 litres/ha in aerial applications. Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.

### WITHHOLDING PERIODS

Avocado and grapes - 14 days  
Cereals for grain - 8 weeks  
Kiwifruit - Do not apply after bud cracking (first visible petals)  
Onions - 7 days  
Pasture and Fodder crops - 7 days  
Pipfruit - Do not apply after tight cluster  
Stonefruit - Do not apply after petal fall  
Squash - 10 days

### RESISTANCE MANAGEMENT

Toppel 500 contains chlorpyrifos, a **GROUP 1 INSECTICIDE** belonging to the organophosphate chemical group with the acetylcholinesterase inhibitor nerve action mode of action. Resistance to this product may develop from excessive use. To minimise this risk use strictly in accordance with label instructions and resistance management strategies ([www.resistance.nzpps.org/](http://www.resistance.nzpps.org/)) that exist for any insect pest listed on the label. Avoid using this insecticide exclusively all season and avoid unnecessary spraying. Maintain good cultural control practices.

### RAINFALL

The effectiveness of Toppel 500 may be reduced if rainfall occurs within 3 hours of application.

**DIRECTIONS FOR USE**

**It is an offence for users of this product to cause residues exceeding the relevant MRL in the Food Notice: Maximum Residue Levels for Agricultural Compounds.  
It is an offence to use this product on animals.**

<b>Crop</b>	<b>Pest</b>	<b>Rate</b>	<b>Critical comments</b>
Avocado	Leaf roller caterpillar	50-75ml/100L of water or 1.7L/ha	Apply pre-bloom, at complete petal fall and then repeat at 21 day intervals to the end of April. Continue applications if leaf roller are still present. Use the 1.7L/ha rate for aerial applications.
Brassicas and forage crops	Aphids	300-400ml in 100-200L of water/ha	Apply at the first sign of infestation.
	Nysius (wheat bug)	1.25L/ha in 100-200L of water/ha	Apply to seedling brassica as soon as damage is evident or when nymphs can be seen feeding on seedlings.
	Springtails	200ml in 100-200L of water/ha	Apply 1-2 days before crop emergence or as soon as damage is evident in emerged crop.
Cereals	Cereal, rose and grain aphid	300-400ml/ha	Apply at first sign of infestation. Use the high rate when infestation pressure is high or the crop is dense.
Cereals and ryegrass	Argentine stem weevil	1.25L/ha in 100-200L of water/ha	Apply as soon as eggs are found on the lower leaf sheaf.
Grapes (except table grapes)	Grape vine weevil, leafroller, caterpillar, mealy bug, aphids, scale crawlers and thrips	50-75ml/100L of water or 1L/ha	Apply at bud swell in combination with an intermediate oil. Follow up with treatments at pre-flowering, post-flowering, 14 days later and then at 3 week intervals for the remainder of the season. Ensure complete plant coverage and penetration into bunches for optimum control of mealy bug.
Kiwifruit	Greedy scale, Leafroller, Passion vine hopper	50ml/100L of water. Apply not less than 1L/ha	Apply at green tip at least 10 days after dormant lime sulphur application. Repeat at pre-blossom, 7 days prior to the introduction of bees. For greedy scale control, complete wetting of vine trunks, leaders and canes is required. The addition of a non-ionic wetting agent is recommended. DO NOT apply after bud cracking (first visible petals).
Lucerne	Aphids	300-450 ml in 100-200L of water/ha	Apply at first sign of infestation. Use the lower rate on short crops with little foliage and the higher rate on tall leafy crops close to cutting. DO NOT spray plants in flower.
	Sitona weevil	600-800ml in 100-200L of water/ha	Apply between May and early August with the optimum time being during the last weeks of May. Use the higher rates on dense leafy crops.
Maize	Army caterpillar, corn earworm	500ml in 50-200L of water/ha	Apply at the first sign of damage and repeat if required 14-21 days later. For corn ear worm, apply before caterpillars are observed and before cob penetration occurs.
	Cut worm	600ml in 50-200L of water/ha	Ensure complete coverage of seedlings and surrounding soil. Apply early post-emergence or as soon as damage occurs. Application in the late evening is advantageous against this nocturnal pest.
Onions	Onion thrips	1L in 400-500L of water/ha. The use of a wetting agent is recommended	Apply when monitoring shows numbers exceed recommended action threshold level. Apply 3-4 applications at 10-14 day intervals, close intervals to 5-7 days during hot conditions. If further treatment is required, use an insecticide with a different mode of action.

Crop	Pest	Rate	Critical comments
Pasture	Lucerne flea	200ml in 50-200L of water/ha	Apply in the late autumn/ early winter at the first sign of clover damage.
	Army caterpillar	400ml in 50-200L of water/ha	Apply at the first sign of damage.
	Porina caterpillar	1.25-1.7L in 50-200L of water/ha	Apply to closely grazed pasture at the first sign of infestation. Use the lower rate in the pre-frost period when caterpillars are small.
	Tasmanian grass grub	1.25-1.5L in 100-200L of water/ha	Apply between April and June to short dry pasture at the first sign of pasture damage. Harrowing of dung patches is recommended prior to spraying to expose the larvae. Use the higher rate when populations are high.
	Argentine stem weevil	1.25L in 100-200L of water/ha	Apply as soon as eggs are found on the lower leaf sheaf.
Pipfruit and stonefruit	Leafroller, mealy bug, scale crawlers, woolly aphid and brown beetle	80ml/100L or not less than 2.4L/ha on mature trees	Pipfruit, apply at bud movement in mixture with a suitable spraying oil and repeat at 10-14 days later at tight cluster without oil. Stonefruit, apply at early bud movement with a suitable spraying oil. Do not apply after petal fall.
Squash	Caterpillars and aphids	500ml/ha in approximately 200L of water/ha	Apply soon after emergence, at the first sign of insect presence or their damage. Pre-harvest clean up - apply by air at 500ml/ha in 50L of water (500L ground spray) only after flowering is complete and bees have stopped working.
Industrial pests	Spiders, ants and slaters	120ml in 10L of water or deodorised kerosene	Apply to areas around doors, windows, eaves and other resting areas. Retreat as required.

#### WARRANTY AND LIMITATION

**IMPORTANT:** Read this notice before opening the container.

The registrant warrants that when packed the active ingredient of this product is as specified on this label within accepted analytical tolerances. The registrant gives only those other warranties that are required by law in relation to this product and limits its liability to the cost paid by the claimant for the product. The registrant declines all liability for damage resulting from the handling, storage or use of this product. The user bears the risk from the handling, storage or use of this product. The registrant is not liable for any use of this product which is contrary to the label directions given or any Act or Regulation.

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