

WARNING: TOXIC - Keep out of reach of children
COMBUSTIBLE LIQUID
ECOTOXIC



Lorsban™ 50EC

INSECTICIDE

ACTIVE INGREDIENT: Contains 500 g/L chlorpyrifos in the form of an emulsifiable concentrate

GROUP 1 INSECTICIDE

Controls insects in agricultural crops and tree and vine fruit

THIS PRODUCT IS AN ORGANOPHOSPHATE

READ THIS LABEL COMPLETELY BEFORE MIXING OR APPLYING

Dow AgroSciences (NZ) Ltd
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HAZARD CLASSIFICATION

3.1D, 6.1C, 6.3B, 6.4A, 6.8B, 6.9A, 9.1A, 9.2B, 9.3A, 9.4A

APPROVED HANDLER

This product must be under the personal control of an approved handler when:

- a) applied in a wide dispersive manner; or
- b) used by a commercial contractor.

Pilots who hold a current pilot chemical rating in accordance with Part 61 of the Civil Aviation Rules are not required to be approved handlers.

DO NOT apply into or onto water.

RECORD KEEPING

Records of application or discharge to the environment, as described in relevant HSNO Act regulations and the New Zealand Standard for the Management of Agrichemicals (NZS8409), must be kept if application, or discharge occurs in a place where members of the public may be present or where the substance may enter air or water and leave the place. See Aerial Application Section for further information.

TRACKING

This product must be tracked throughout its lifecycle. Handling of tracked substances and the keeping of records must be in accordance with the requirements of the Hazardous Substances (Tracking) Regulations and the NZS8409 Management of Agrichemicals.

COMBUSTIBLE LIQUID - DO NOT store or use near heat or naked flame. Will burn if ignited.

TOXICITY

WARNING

THIS SUBSTANCE MAY BE HARMFUL IF SWALLOWED, OR ABSORBED THROUGH THE SKIN. Repeated minor exposures may have cumulative effects. **DO NOT** inhale the vapour or spray mist. **DO NOT** eat, drink or smoke while using. Remove protective clothing immediately after handling this product and wash hands and face before meals and after work.

MAY CAUSE SKIN AND EYE IRRITATION. Avoid contact with eyes and skin.

ECOTOXICITY

VERY TOXIC TO AQUATIC ORGANISMS WITH LONG-LASTING EFFECTS. **DO NOT** contaminate an aquatic environment with chemical or empty container. **DO NOT** spray over or allow to drift over, an aquatic environment.

HARMFUL TO THE SOIL ENVIRONMENT. **DO NOT** allow drift outside the target area to occur.

VERY TOXIC TO TERRESTRIAL VERTEBRATES SUCH AS BIRDS AND REPTILES. Store chemical and empty containers away from animals and birds.

VERY TOXIC TO TERRESTRIAL INVERTEBRATES. VERY TOXIC TO BEES. **DO NOT** apply this product to any plant or tree likely to be visited by bees at the time of application, or immediately after application until spray has dried; or in areas where bees are foraging. **DO NOT** spray over beneficial predators.

HANDLING PRECAUTIONS

EQUIPMENT

Apply using accurately calibrated and maintained equipment in accordance with the New Zealand Standard for the Management of Agrichemicals (NZS8409).

Flush equipment thoroughly with clean water after use according to the Cleaning Spray Equipment instructions below. Dispose of cleaning water according to the Disposal Instructions below.

STORAGE

Store in the original container tightly closed and in a locked, dry, cool, well ventilated area, well away from ignition sources and foodstuffs. Storage must be generally in accordance with NZS8409.

DO NOT store with Class 1, 2, 3.2, 4 or 5 substances.

Stores containing more than 100 L of **LORSBAN 50EC INSECTICIDE** require bunding and are subject to signage. See NZS8409 and relevant HSNO regulations for further information.

PERSONAL PROTECTION

When opening the container, mixing or applying wear face shield or goggles, elbow length chemical resistant gloves (e.g. PVC or neoprene), chemical resistant boots, waterproof hat and chemical resistant overalls buttoned to the neck and wrist and chemical resistant headwear for overhead exposures. After each day's use, wash gloves, face shield or goggles, and contaminated clothing. Personal protection equipment is not required when the person is applying the product using a vehicle and where that person is operating the vehicle from within a fully-enclosed cab equipped with protective equipment to prevent contact with, and inhalation of the product.

SPILLS

Extinguish all sources of ignition. **DO NOT** touch or walk through spilled material. Wear personal protection as described above. Stop leak when safe to do so. Contain liquid spills and prevent entry into waterways, and drains or coming into contact with HSNO Class 1, 2, 3.2, 4 or 5 substances. **Small spills/leaks:** Absorb small spills with proprietary absorbent suitable for chemical spills or inert material such as sand, soil or sawdust. Collect spilled product and place in a sealable container for disposal. Spill residues may be cleaned using water and detergent. Contain and absorb wash water for disposal. Absorb and collect washings and place in the same sealable container for disposal. Seek advice from the SDS, product label or Corteva Agriscience regarding disposal. **Large spills:** Report large spills to Corteva Agriscience Emergency Services at 0800 844 455.

DISPOSAL

Triple rinse empty containers and add rinsate to spray tank. Triple rinsed containers containing the Agrecovery logo on the label and that are free of all residues (liquid and dry) and have an intact legible label should be taken to an Agrecovery collection site. Otherwise crush and bury in a suitably approved landfill. **DO NOT** burn empty containers.

Dispose of this product only by using according to the label, via Agrecovery (visit www.agrecovery.co.nz or call 0800 AGRECOVERY (247 326) for information about the type and quantity of chemical acceptable for disposal), or at an approved landfill. **DO NOT** burn the product.

Dispose of unused spray mix and equipment cleaning water onto non-grazed and non-cropped ground away from edible and flowering plants.

DO NOT dispose of this product, spray mix or equipment cleaning water down drains or sewers.

FIRST AID

If swallowed **DO NOT** induce vomiting. If swallowed, splashed on skin or in eyes, or inhaled, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. If swallowed activated charcoal may be advised. Give atropine if instructed. If the patient is not breathing, begin artificial respiration. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention. If splashed in eyes, flush eyes with water for at least 15 minutes and see a doctor. If inhaled, move victim to fresh air immediately. If breathing has stopped, begin artificial respiration. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

TRANSPORT

DO NOT carry on a passenger service vehicle.

RE-ENTRY

DO NOT allow entry into treated areas within 24 hours unless wearing the Personal Protection Equipment recommended in the Handling Precautions.

SAFETY DATA SHEET

A Safety Data Sheet for **LORSBAN 50EC INSECTICIDE** is available from Corteva Agriscience on request. Call Customer Service Toll Free on 0800 803 939, or visit www.corteva.co.nz.

NOTICE

Important: You **must** read the warning and conditions given on this label. If they are not acceptable, or if you are in doubt as to the proper handling of this product (including its transport, storage, use, disposal and requirements for approved handlers [if applicable]) then return the unopened product to the supplier at once.

Warning: This product is subject to controls and could be hazardous if handled incorrectly. The **user is responsible** for ensuring that the handling of this product is in accordance with the law (including the *Hazardous Substances and New Organisms Act 1996* and the *Agricultural Compounds and Veterinary Medicines Act 1997*) and with the directions provided. The Registrant declines all liability (whether in contract, tort (including but not limited to negligence), or otherwise) to the maximum extent permitted by law in relation to the handling of this product in a manner which is contrary to the directions given or to any applicable Acts, Regulations or Guidelines.

Further information regarding the applicable Acts, Regulations and Guidelines for the proper handling of this product may be obtained by contacting EPA New Zealand (www.epa.govt.nz) or the Ministry for Primary Industries (MPI) (www.foodsafety.govt.nz).

This product is warranted to contain the specified active ingredients within accepted analytical tolerance when packed.

SPRAY DRIFT MANAGEMENT

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.

NEIGHBOUR NOTIFICATION (Aerial application only)

Neighbours likely to be directly affected by the application, including occupiers and owners of land, dwellings or buildings or property that is immediately abutting the application area **MUST** be notified prior to application. Notification **MUST** be given at least 2 working days but no more than 4 weeks in advance of each application and specify:

- the location of the application area that the substance will be applied to;
- The date and approximate duration of each application;

- The steps to be taken by the notified parties to avoid exposure;
- The name of the organisation/s undertaking the application;
- The contact details for the person in charge of the application (phone, email or postal address), including a contact number for immediate contact during application.

MIXING:

Pour the measured quantity of **LORSBAN 50EC INSECTICIDE** into the partly filled spray tank. Agitate thoroughly while filling, during spraying, and before spraying after a stoppage.

CLEANING SPRAY EQUIPMENT:

After using **LORSBAN 50EC INSECTICIDE**:

- Empty the spray tank completely and drain the whole system. Drain the spray unit and clean any filters in the tank, pump, lines, hoses and nozzles.
- After cleaning the spray unit as above, quarter fill with clean water and circulate through the pump, lines, hoses and nozzles. Drain and repeat the rinsing procedure twice.
- Discard rinse water on land already sprayed or on wasteland away from desirable plants and water sources.

APPLICATION METHODS

The following application situations must use spray equipment in accordance with the New Zealand Standard for the Management of Agrichemicals (NZS8409).

Good coverage is essential to ensure adequate control.

Ground spraying

For tree and vine crops use:

- a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed; or
- a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.

For field and pasture crops use:

Ground Boom: Use 50-200 L/ha of water. **DO NOT** apply with spray droplets smaller than a MEDIUM spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S-572 Standard or the BCPC Guideline. Apply when wind speed is between 1 and 6 m/sec (3.6 – 21.6 kph). **DO NOT** apply under inversion weather conditions.

Aerial Spraying

In field crops use 50-200 L/ha of water. **DO NOT** apply with spray droplets smaller than a MEDIUM spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S-572 Standard or the BCPC Guideline. Apply when wind speed is between 1 and 6 m/sec (3.6 – 21.6 kph). **DO NOT** apply under inversion weather conditions.

This product must not be applied by air until a written notice of the proposed application is given to any person likely to be directly affected by the application, including occupiers and owners of land, dwellings or buildings or property that is immediately abutting the application area. The notice must be given at least 2 working days but no more than 4 weeks in advance of each application; and must specify the following:

- The location of application area that the substance will be applied to;
- The date and approximate duration of each application;
- The steps to be taken by the notified parties to avoid exposure;
- The name of the organisation/s undertaking the application;
- Contact details for the person in charge of the application (phone, email or postal address, including a contact number for immediate contact during application).

COMPATIBILITY:

LORSBAN 50EC INSECTICIDE is compatible with many other commonly used pesticides.

DO NOT mix with highly alkaline materials such as Bordeaux mixture and lime sulphur, or foliar fertilisers.

In kiwifruit **DO NOT** mix with other pesticides, wetting agents or other additives such as growth promotants.

RAINFASTNESS

LORSBAN 50EC INSECTICIDE is rainfast once the spray deposit is dry.

WITHHOLDING PERIOD

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.

The required withholding periods are given for each crop in the Directions for Use section below.

RESISTANCE MANAGEMENT**GROUP 1 INSECTICIDE**

LORSBAN 50EC INSECTICIDE is an organophosphate insecticide (Group 1). Some naturally occurring individual insects may become resistant when excessive use of the same insecticide occurs. To maximize the effectiveness of insecticides, products containing alternate modes of action should be used in the spray program. Consult <http://resistance.nzpps.org/> for alternate modes of action and the details of resistance management strategies (if any) for the crops listed on the label.

DIRECTIONS FOR USE:

It is an offence to use this product on animals.

LORSBAN 50EC INSECTICIDE controls many sucking and chewing insects in fruit crops, vine crops, field crops and pasture.

DO NOT apply at more than 3 L/ha (HSNO control requirement).

(a) FRUIT AND VINE CROPS

The rates suggested are for high volume spraying to runoff.
For concentrate spraying, adjust dilution rate accordingly.

KIWIFRUIT

Insects Controlled: Greedy scale, leaf roller, passion vine hopper.

Use Rate: Apply 50 mL/100 L of water. **DO NOT** use less than 1.0 L/ha at each spray.

Schedule: **Pre-blossom:** Apply two applications pre-blossom, the first during October and the second 7 days prior to the introduction of bees.

Post-blossom: Use **LORSBAN 50EC INSECTICIDE** for the last two applications of the season with a spray interval of 21-28 days. **DO NOT** apply prior to 1 March and no later than 14 days before harvest. If passion vine hopper occurs over this period it will be controlled with this schedule. If numbers are high, surrounding vegetation may also need treating.

Withholding Period: **DO NOT** harvest within 14 days of application.

Compatibility: **DO NOT** mix with other pesticides, wetting agents or other additives such as foliar fertilisers or growth promotants.

GRAPES (EXCEPT TABLE GRAPES)

Insects Controlled: Leaf roller, mealy bug, aphids, scale crawlers, thrips, grapevine weevil.

Use Rate: Apply 50-75 mL/100 L of water. Use 75 mL/100 L of water early in the season for mealy bug control or when insect populations are high. Ensure adequate penetration of bunches particularly for mealy bug control. **DO NOT** use less than 1.0 L/ha at full foliage.

Schedule: Apply at bud swell (with intermediate oil), preflower, postflower and 14 days later, then at 3 weekly intervals for the rest of the season.

Withholding Period: **DO NOT** harvest within 14 days of application.

CAUTION: On crops grown under cover, or on sensitive grape varieties, test **LORSBAN 50EC INSECTICIDE** alone or in mixture on a few plants first. When applied to very soft foliage (e.g. during flush growth under glass) transient leaf burn may occur.

PIP AND STONE FRUIT

Insects Controlled: Mealy bug, scale crawlers, woolly aphid, leaf roller and brown beetle.

Use Rate: Apply 80 mL/100 L of water. Use not less than 2.4 L/ha on mature trees. Ensure complete coverage.

Schedule: **Pip Fruit:** Apply at bud movement (with intermediate oil) and then 10-12 days later. **Stone Fruit:** Apply at early bud movement (with intermediate oil).

Note: Use Lorsban™ 750 WG Insecticide after petal fall.

Withholding Period: **DO NOT** use after flowering commences.

AVOCADO

Insects Controlled: Leaf rollers.

Use Rate: **High volume:** Apply 50-75 mL/100 L spray to run-off.

Aerial: Apply 1.6 L/ha in an appropriate volume of water.

Schedule: Apply preblossom, at complete petal fall then at 21 day intervals to the end of April. After April applications may be made if leaf rollers are present.

Withholding Period: **DO NOT** harvest within 14 days of application.

(b) FIELD CROPS AND PASTURE

Use higher water volumes and rates of **LORSBAN 50EC INSECTICIDE** when crops are dense or when insect populations are high.

Aphids in Brassicas: Apply 280-400 mL/ha.

Aphids in Cereals: Apply 280-400 mL/ha for cereal aphid, grain aphid and rose grain aphid. Use the high rate when aphid populations are high or when the crop is dense.

Aphids in Lucerne: Apply 280-400 mL/ha. Use 280 mL/ha on short crops with little leaf and 440 mL/ha on tall leafy crops close to cutting. **DO NOT** spray plants in flower.

Aphids and caterpillars in winter squash: Apply 500 mL/ha as a single application soon after emergence, at the first signs of insects or insect damage. As a pre-harvest cleanup, apply 500 mL/ha only when flowering has finished and bees are not present in the crop.

- Sitona Weevil in Lucerne:** Apply 600-800 mL/ha between May and early August. Optimum time is during the last two weeks of May. Use higher rates on dense crops.
- Wheat bug (*Nysius*):** Apply 1.2 L/ha in seedling crops such as pasture brassica and fodder beet. Apply as soon as damage is evident or when wheat bug nymphs can be found feeding on seedling plants.
- Army Caterpillar - Corn Earworm:** Apply 500 mL/ha in maize. For corn earworm control apply when caterpillars are first observed before cob penetration has occurred.
- Cutworm:** Apply 560 mL/ha in sufficient volume of water to ensure complete coverage of seedlings and surrounding soil. Apply early post emergence or immediately after the damage occurs.
- Stem Weevil:** Apply 1.2 L/ha in ryegrass and cereal crops. To determine the time of application monitor samples of tillers. Examine the lower leaf sheath for eggs and if present treat as soon as possible.
- Lucerne Flea (Clover Flea):** Apply 200 mL/ha in pasture when 10-20% of clover leaflets show damage preferably in the late autumn early winter period when juvenile (nymph) stages predominate.
- Springtails:** Apply 200 mL/ha 12 days before crop emergence or as soon as damage is evident.
- Porina Caterpillar:** Apply 1.2-1.6 L/ha in pasture. Use the low rate in the pre-frost period when the caterpillars are small. The pasture should be closely grazed before treatment.
- Withholding Period:** **DO NOT** graze pasture or fodder crops (except maize) for 7 days after application.
DO NOT feed maize crops or graze maize stubble for 14 days after application.
DO NOT harvest cereal crops for 8 weeks after application of.
DO NOT harvest winter squash for 10 days after application.

Registered pursuant to the ACVM Act 1997, No P1839.
 See www.foodsafety.govt.nz for registration conditions.

Approved pursuant to HSNO Act 1996, EPA Approval Code HSR000224
 See www.epa.govt.nz for approval controls.

Registered to:
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EMERGENCY RESPONSE
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IN A TRANSPORT EMERGENCY
DIAL 111
FOR POLICE OR FIRE