

Infosafe No™ 3NUNG	Issue Date : August 2025	ISSUED by NUFARMNZ
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 Product Name **KAISO® 50WG**

Section 1 - Identification

Product Identifier	KAISO® 50WG
Product Code	03600
Product Type	Synthetic pyrethroid insecticide
Company Name	Nufarm NZ
Address	Central Park, Building 3, Level 4, 666 Great South Road Ellerslie Auckland 1051 New Zealand
Telephone/Fax Number	Tel: 0-9-270 4150
Emergency Phone Number	0800 651 911
Email	nzinfo@nufarm.com
Recommended uses and any restrictions on use or supply	A synthetic pyrethroid insecticide for the control of foliar pests in amenity turf, beans, cereals, citrus, grapes, fodder beet, forage herbs, kumara, maize, onions, ornamentals, potatoes, plantain and plantain/clover swards, pumpkins, sugar beet, sweetcorn, tomatoes, vegetable and forage brassicas, and winter squash.
Other Information	This SDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture	Acute oral toxicity: Category 4 Acute inhalation toxicity: Category 4 Eye irritation Category 2 Specific target organ toxicity - repeated exposure: Category 2 Hazardous to the terrestrial environment: Hazardous to terrestrial vertebrates Hazardous to the terrestrial environment: Hazardous to terrestrial invertebrates Hazardous to the aquatic environment acute Category 1 Hazardous to the aquatic environment chronic Category 1
Signal Word (s)	WARNING
Hazard Statement (s)	H302 Harmful if swallowed. H312 Harmful in contact with skin. H332 Harmful if inhaled. H319 Causes serious eye irritation. H371 May cause neurotoxicity and lung damage from repeated oral or inhalation exposure at high doses. H410 Very toxic to aquatic life with long lasting effects. H432 Toxic to terrestrial vertebrates. H441 Very Toxic to terrestrial invertebrates.
Precautionary Statement – General	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read carefully and follow all instructions.
Pictogram (s)	Exclamation mark, Health hazard, Environment



Precautionary Statement – Prevention	P260 Do not breathe dust/fume/gas/mist/vapours/spray. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area.
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Infosafe No™ 3NUNG	Issue Date : August 2025	ISSUED by NUFARMNZ
--------------------	--------------------------	--------------------

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Precautionary Statement – Response

P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
P312 Call a POISON CENTER/doctor if you feel unwell.
P330 Rinse mouth.
P337+P313 If eye irritation persists: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
P405 Store locked up.

Precautionary Statement – Storage

Precautionary Statement – Disposal

P501 Dispose of contents/container to an approved landfill.

Section 3 - Composition and Information on Ingredients

Chemical Characterization	Solid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Lambda- cyhalothrin technical	91465-08-6	50 g/kg
	Ingredients determined to be non-hazardous	-	30-60%w/w
	Perlite	93763-70-3	30-60%w/w

Section 4 - First Aid Measures

First-aid Measures For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention.

Inhalation Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.

Ingestion Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.

Skin Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance.

Eye Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance. Remove contact lenses, if present and easy to do.

First-aid Facilities Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

Advice to Doctor Treat symptomatically.
Exposure to lambda-cyhalothrin can result in sensations of tingling especially in the face. The effects are transient and generally disappear in one to two days. Topical application of vitamin E cream is effective in reducing discomfort.

Section 5 - Firefighting Measures

Suitable Extinguishing Media Water fog, foam, carbon dioxide or dry chemical.

Hazards from Combustion Products If involved in a fire, it may emit hydrogen chloride, hydrogen fluoride and oxides of carbon and nitrogen.

Infosafe No™ 3NUNG	Issue Date : August 2025	ISSUED by NUFARMNZ
--------------------	--------------------------	--------------------

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Special protective equipment for fire-fighters	Full protective clothing and self-contained breathing apparatus.
Specific Methods	Keep up wind. Do not allow washings to reach sewage or effluent systems. Contain run-off and dispose of fire control water later.
Hazchem Code	2Z
Decomposition Temperature	Information is not available.
Other Information	Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: Not applicable

Section 6 - Accidental Release Measures

Spills and Disposal	Wear protective clothing. Clear area of unprotected personnel. Sweep up solids without generating dust (use water to dampen). Contain and absorb liquid spills with inert material and place in waste containers. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill. Wash area with water and absorb with further inert material. Dispose of waste safely in an approved landfill.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Environmental Precautions	Prevent from entering drains, waterways or sewers.

Section 7 - Handling and Storage

Precautions for Safe Handling	The person mixing or applying Kaiso 50WG must be a 'Qualified Contractor' or a 'Qualified Person'. The spray mixture may also be prepared by a 'Qualified Loader'. It is the duty of the PCBU that a person who uses, handles, manufactures or stores a hazardous substance (including hazardous waste) is provided information, instruction and training in accordance with Regulation 4.5 of the Health and Safety at work (Hazardous Substances) Regulations 2017. Avoid skin and eye contact and inhalation of spray mist. Do not apply when bees are actively foraging. Avoid direct application to bee hives. Spray must not contact plants in flower if they are likely to be visited by bees. Do not apply directly onto, into or over water. CERTIFIED HANDLER: Is not required. TRACKING: Is not required. RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 3kg or more of Kaiso 50WG is applied within 24 hours.
Conditions for safe storage, including any incompatibilities	Keep out of reach of children. Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Storage must be in accordance with NZS 8409 Management of Agrichemicals. Stores containing 100kg of Kaiso 50WG are subject to signage, and more than 100kg require emergency response plans.
Other Information	Always read the label and any attached leaflet before use. Aggregate Storage Volume Thresholds: When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

Section 8 - Exposure Controls and Personal Protection

Exposure Controls/Personal Protection	Restricted Entry Interval (REI): - Beans, forage brassica, tomatoes, sweet corn, clover seed crops, cereals, maize 48 hrs - Vegetable brassica 7 days - Onions 3 days - Grapes 5 days
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Infosafe No™ 3NUNG	Issue Date : August 2025	ISSUED by NUFARMNZ
--------------------	--------------------------	--------------------

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Occupational Exposure Limits (OEL)	The person in charge is responsible for making sure no person enters the application area before the end of the REI. If entering an application area during the REI, ensure appropriate Personal Protective Equipment (PPE) is worn. No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product. The NZ MBIE has set WES for the following components: WES TWA for Perlite = 10mg/m ³ WES TWA for Talc = 2mg/m ³ (respirable dust)
Appropriate Engineering Controls	Handle in well ventilated areas, generally natural ventilation is adequate. Local exhaust ventilation may be required in confined spaces.
Personal Protective Equipment	When opening the container, preparing spray and using the prepared spray wear safety goggles, waterproof gloves, washable hat, dust mask, cotton overalls buttoned to the neck and wrist, and boots.
Hygiene Measures	Do not eat, drink or smoke while using. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.

Section 9 - Physical and Chemical Properties

Form	Solid
Appearance	Tan granule.
Odour	Acid-like odour.
Decomposition Temperature	Information is not available.
Solubility in Water	Disperses in water. Solubility of active ingredient lambda-cyhalothrin is 0.005mg/L @ pH6.5, 20°C
pH	4.0
Vapour Pressure	2 x 10 ⁻⁴ mPa @ 20°C, est. for active ingredient lambda-cyhalothrin.
Vapour Density (Air=1)	Information is not available.
Odour Threshold	Information is not available.
Partition Coefficient: n-octanol/water	Kow Log P = 7 @ 20°C for active ingredient lambda-cyhalothrin.
Density	0.577g/ml (tapped)
Flash Point	F.p. = 83°C (tech.) for active ingredient lambda-cyhalothrin.
Flammability	Non-combustible.
Auto-ignition Temperature	Information is not available.
Flammable Limits - Lower	Information is not available.
Flammable Limits - Upper	Information is not available.
Initial Boiling Point and Boiling Range	Does not boil at atmospheric pressure for active ingredient lambda-cyhalothrin.
Kinematic Viscosity	Information is not available.
Particle Characteristics	Information is not available.
Relative Density	1.33g/mL (25°C) for active ingredient lambda-cyhalothrin.
Melting/Freezing Point	M.p. = 49.2°C for active ingredient lambda-cyhalothrin.
Other Information	(WG) Water Dispersible Granule

Infosafe No™ 3NUNG	Issue Date : August 2025	ISSUED by NUFARMNZ
--------------------	--------------------------	--------------------

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Section 10 - Stability and Reactivity

Chemical Stability	Stable under normal conditions of handling and storage.
Conditions to Avoid	Excessive heat and fire.
Incompatible Materials	Strong oxidizing agents, alkalis and acids.
Hazardous Decomposition Products	Under fire conditions may produce gases such as hydrogen chloride, hydrogen fluoride, and oxides of carbon and nitrogen.
Hazardous Polymerization	Hazardous polymerisation will not occur.

Section 11 - Toxicological Information

Toxicology Information	No specific toxicological data is available for this product. Data below is for constituents.
Acute Toxicity - Oral	LD50 (male rats) 79mg/kg, (female rats) 56mg/kg for active ingredient lambda-cyhalothrin.
Acute Toxicity - Inhalation	LC50 (rat) 0.06mg/L/4h for active ingredient lambda-cyhalothrin.
Acute Toxicity - Dermal	LD50 (rats) 632-696mg/kg for active ingredient lambda-cyhalothrin.
Ingestion	Possible symptoms of exposure include: Coughing and abdominal pain.
Inhalation	Breathing in high concentrations of dusts or aerosols of this product may result in a burning sensation, cough, convulsions, laboured breathing, shortness of breath or sore throat.
Skin	Exposure to Kaiso 50WG can result in sensations of tingling especially in the face. The effects are transient and generally disappear in one to two days. Topical application of vitamin E cream is effective in reducing discomfort. The occurrence of 'facial sensations' is an indication of exposure. Under these circumstances work practices should be reviewed. Prolonged or repeated exposure may cause skin sensitisation.
Skin Corrosion/Irritation	The product is a skin irritant.
Serious Eye Damage/Irritation	Mild eye irritant.
Skin Sensitisation	Prolonged and repeated skin contact may result in skin sensitisation. Skin contact may produce skin sensations such as numbing, burning and tingling. These sensations are reversible and usually subside within 12 hours.
Germ Cell Mutagenicity	Information is not available.
Carcinogenicity	Information is not available.
STOT - Single Exposure	Information is not available.
STOT - Repeated Exposure	May cause neurotoxicity and lung damage from repeated oral or inhalation exposure at high doses.
Aspiration Hazard	Information is not available.

Section 12 - Ecological Information

Persistence and Degradability	Lambda cyhalothrin is rapidly degraded in soil; DT50 (microbial degradation)= 23 - 92 days, DT50 (field soil)= 6 - 40 days. Strongly adsorbed to soil and sediment organic matter, Koc = 330,000.
Mobility	Information is not available.
Bioaccumulative Potential	Information is not available.

Infosafe No™ 3NUNG	Issue Date : August 2025	ISSUED by NUFARMNZ
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Acute Toxicity - Fish LC50 (96hr) bluegill sunfish = 0.21µg/L for active ingredient lambda-cyhalothrin.
LC50 (96hr) rainbow trout = 0.36µg/L for active ingredient lambda-cyhalothrin.

Acute Toxicity - Daphnia Intrinsic toxicity to aquatic organisms is greatly reduced by rapid loss from the water by adsorption and degradation: EC50 (72hr) in water = 0.26µg/L for active ingredient lambda-cyhalothrin.

Acute Toxicity - Algae ErC50 (96hr) for *Selenastrum capricornutum* = >1,000µg/L for active ingredient lambda-cyhalothrin.

Acute Toxicity - Other Organisms Birds: LD50 for mallard duck = >3,950mg/kg for active ingredient lambda-cyhalothrin.
Bees: LD50 (oral) 909ng/bee; (contact) 38ng/bee for active ingredient lambda-cyhalothrin.
Worms: LC50 for *Eisenia foetida* = >1,000mg/kg soil for active ingredient lambda-cyhalothrin.

Section 13 - Disposal Considerations

Product Disposal Dispose of product only by using according to the label, or at an approved landfill.

Container Disposal Triple rinse empty container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.

Section 14 - Transport Information

Transport Information It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.

UN Number 3077

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. - (lambda-cyhalothrin)

Hazard Class 9

Hazchem Code 2Z

Packaging Method -

Packing Group III

EPG Number -

IERG Number 47

IMO Marine Pollutant Yes. Environmentally Hazardous Substance mark required.

IMDG EMS F-A, S-F

Other Information Do not carry more than 3kg of Kaiso 50WG on a passenger service vehicle. Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional segregation. Refer NZS5433 sea segregation for details.

Section 15 - Regulatory Information

National and or International Regulatory Information Registered pursuant to the ACVM Act 1997, No. P8819
See www.foodsafety.govt.nz for registration conditions
Approved pursuant to the HSNO Act 1996, Approval Code HSR100829
See www.epa.govt.nz for approval controls.

Packaging and Labelling KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Section 16 - Any Other Relevant Information

Date of preparation or last revision of SDS March 2025.

Contact Person/Point IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE
24Hr Tollfree Emergency No: 0800 651 911
24Hr Emergency No: National Poisons Centre Phone: 0800 764 766

Infosafe No™ 3NUNG	Issue Date : August 2025	ISSUED by NUFARMNZ
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**Revisions
Highlighted**

Product code updated from 01759 to the current active code for New Zealand 03600.

...End Of MSDS...

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