

Infosafe No™ 3NUB5	Issue Date : August 2019	ISSUED by NUFARMNZ
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 Product Name **DiPel® DF**

## 1. Identification

<b>GHS Product Identifier</b>	DiPel® DF
<b>Product Code</b>	03513
<b>Product Type</b>	Biological insecticide
<b>Company Name</b>	Nufarm NZ
<b>Address</b>	6 Manu Street, Otahuhu Auckland 2024 New Zealand
<b>Telephone/Fax Number</b>	Tel: 0-9-270 4150
<b>Emergency phone number</b>	0800 651 911
<b>Email</b>	nzinfo@nufarm.com
<b>Recommended use of the chemical and restrictions on use</b>	An organic insecticide for the control of caterpillars on fruit, vegetables and ornamental crops.
<b>Other Information</b>	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.

## 2. Hazard Identification

<b>Signal Word (s)</b>	WARNING
<b>Hazard Statement (s)</b>	H320 Causes eye irritation
<b>General Precautionary Statement (s)</b>	P103 Read label before use.
<b>Precautionary statement – Prevention</b>	P264 Wash face and hands thoroughly after handling.
<b>Precautionary statement – Response</b>	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice.
<b>Other Information</b>	6.4A eye irritant, 9.1D aquatic toxicant, TOXICITY Warning-Causes eye irritation. ECOTOXIC Has biocidal action against Lepidoptera.

## 3. Composition/information on ingredients

<b>Chemical Characterization</b>	Solid		
<b>Ingredients</b>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Other ingredients not disclosed by supplier	N/A	46%
	Bacillus thuringiensis subspecies kurstaki (H-3a, 3b HD1)	68038-71-1	32,000 International Units/mg

## 4. First-aid measures

<b>First Aid Measures</b>	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.
<b>Inhalation</b>	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.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. If swallowed do NOT

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<b>Skin</b>	induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.
<b>Eye contact</b>	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.
<b>First Aid Facilities</b>	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Remove contact lenses, if present and easy to do. Seek medical assistance even if there are no immediate symptoms.
<b>Advice to Doctor</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. Treat symptomatically. Medical conditions aggravated by exposure - impaired respiratory function.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Choose extinguishing media to suit the burning material. Water fog, foam, carbon dioxide or dry chemical.
<b>Special Protective Equipment for fire fighters</b>	Full protective clothing and self-contained breathing apparatus.
<b>Specific Methods</b>	Keep up wind. Do not allow washings to reach sewage or effluent systems.
<b>Decomposition Temp.</b>	Not determined.
<b>Other Information</b>	Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: Not applicable

## 6. Accidental release measures

<b>Spills &amp; Disposal</b>	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.
<b>Personal Protection</b>	For appropriate personal protective equipment (PPE), refer Section 8.
<b>Environmental Precautions</b>	Prevent from entering drains, waterways or sewers.

## 7. Handling and storage

<b>Precautions for Safe Handling</b>	Avoid skin and eye contact and inhalation of spray mist or dust. CERTIFIED HANDLER: Not applicable. TRACKING: Not applicable. RECORD KEEPING: Not applicable.
<b>Conditions for safe storage, including any incompatibilities</b>	High temperatures will damage the bacterial spores contained in DiPel DF . Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs and out of direct sunlight. Storage must be in accordance with NZS 8409 Management of Agrichemicals.
<b>Other Information</b>	Always read the label and any attached leaflet before use.

## 8. Exposure controls/personal protection

<b>Occupational exposure limit values</b>	No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product. As with all dusts the WES for particulates not otherwise classified = 10mg/m <sup>3</sup> .
<b>Appropriate engineering controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate.
<b>Personal Protective Equipment</b>	When opening the container, preparing spray and using the prepared spray wear safety goggles, impervious gloves, cotton overalls buttoned to the neck and wrist, and boots.
<b>Hygiene Measures</b>	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.

## 9. Physical and chemical properties

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 Product Name **DiPel® DF**

<b>Form</b>	Solid
<b>Appearance</b>	Yellow to mustard brown fine granules
<b>Odour</b>	Faint organic/malt odour
<b>Decomposition Temperature</b>	Not determined.
<b>Melting Point</b>	Not determined.
<b>Boiling Point</b>	Not applicable.
<b>Solubility in Water</b>	Disperses in water.
<b>pH</b>	4.1 (10% slurry @ 24°C)
<b>Vapour Pressure</b>	Not determined.
<b>Vapour Density (Air=1)</b>	Not determined.
<b>Partition Coefficient: n-octanol/water</b>	Not determined.
<b>Density</b>	0.473g/mL
<b>Flash Point</b>	Not applicable.
<b>Flammability</b>	Not determined.
<b>Auto-Ignition Temperature</b>	Not determined.
<b>Flammable Limits - Lower</b>	Not determined
<b>Flammable Limits - Upper</b>	Not determined.
<b>Other Information</b>	(WG) Water Dispersible Granule

## 10. Stability and reactivity

<b>Chemical Stability</b>	Stable under normal conditions of handling and storage.
<b>Incompatible Materials</b>	Alkalinity inactivates product.
<b>Hazardous Decomposition Products</b>	None known.
<b>Hazardous Polymerization</b>	Hazardous polymerisation will not occur.

## 11. Toxicological Information

<b>Acute Toxicity - Oral</b>	LD50 (>5050) mg/kg (rat)
<b>Acute Toxicity - Dermal</b>	LD50 (>2020) mg/kg (rabbit)
<b>Acute Toxicity - Inhalation</b>	Due to the non-dusty characteristics of the product, the test facility was unable to generate a sufficiently high enough concentration of respirable particles. Inhalation of dust may result in respiratory tract irritation.
<b>Skin Sensitisation</b>	In a study with this product, no skin sensitization was observed.
<b>Germ cell mutagenicity</b>	Data not available.
<b>Carcinogenicity</b>	No data to support a positive result.
<b>Reproductive Toxicity</b>	No adverse effects known. No adverse teratological effects known.
<b>STOT-repeated exposure</b>	Data not available.
<b>Aspiration Hazard</b>	Information not available.

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<b>Serious eye damage/irritation</b>	Transient, mild to moderate irritation was observed in test animals in a study with this product. Rinsing the eyes with water dramatically reduced irritation scores.
<b>Respiratory Irritation</b>	Not classified.
<b>Skin corrosion/irritation</b>	Transient, slight or mild irritation noted in a dermal irritation study with this product.

## 12. Ecological information

<b>Ecological Information</b>	Low toxicity to fish and wildlife.
<b>Persistence and degradability</b>	No data available.
<b>Mobility</b>	No data available.
<b>Environmental Fate</b>	Bacillus thuringiensis subsp. kurstaki spores have a very short persistence in the environment (DT50 10h), mainly due to their u.v.-light sensitivity.
<b>Bioaccumulative Potential</b>	No data available.
<b>Short Summary of Assessment of Environmental Impact</b>	DIPEL DF is toxic only to caterpillars of certain lepidopterous insects (moths and butterflies). It does not harm beneficial insects and mite predators, and leaves no harmful crop residues.

## 13. Disposal considerations

<b>Product Disposal</b>	Dispose of product only by using according to the label, or at an approved landfill.
<b>Container Disposal</b>	Triple rinse empty container and add rinsate to the spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.

## 14. Transport information

<b>Transport Information</b>	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
<b>Storage and Transport</b>	Not classified as Dangerous Goods for transport in New Zealand.
<b>Other Information</b>	Do not carry more than 3kg of DIPEL DF 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.

## 15. Regulatory information

<b>National and or International Regulatory Information</b>	Registered pursuant to the ACVM Act 1997, No. P3853 See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration conditions Approved pursuant to the HSNO Act 1996, Approval Code HSR000698 See <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for approval controls.
<b>Hazard Rating Systems</b>	NFPA/HMIS: 1-1-1
<b>Other Information</b>	BioGro Organic Certification: 'Permitted Input'. BioGro Number: 4027 .

## 16. Other Information

<b>Contact Person/Point</b>	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
<b>Revisions Highlighted</b>	SDS was reviewed to incorporate GHS updates.
<b>Other Information</b>	Supersedes SDS issued November 2016 ...End Of MSDS...



# Safety Data Sheet

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