

Infosafe No™ 3NULC	Issue Date : March 2019	ISSUED by NUFARM
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Product Name **NANDO®**

1. Identification

GHS Product Identifier	NANDO®
Product Code	02995
Product Type	Fungicide
Company Name	Nufarm NZ
Address	6 Manu Street, Otahuhu Auckland 2024 New Zealand
Telephone/Fax Number	Tel: 0-9-270 4150
Emergency phone number	0800 651 911
Email	info@nz.nufarm.com
Recommended use of the chemical and restrictions on use	For the control of a wide range of diseases in grapes, field tomatoes, potatoes, and vegetable brassicas.
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.

2. Hazard Identification

Other Information	6.1D acute toxicant, 6.8B reproductive or developmental toxicant, 6.9B target organ toxicant, 9.1A aquatic toxicant, TOXICITY Harmful - may be harmful if swallowed, inhaled or absorbed through the skin. May cause reproductive/development damage or liver damage from repeated oral exposure. ECOTOXIC Very toxic to aquatic organisms.
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3. Composition/information on ingredients

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Fluazinam	79622-59-6	500 g/L
	Ingredients determined to be non-hazardous	-	Balance

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 contact	Remove contact lenses, if present and easy to do. 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.
First Aid Facilities	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
Advice to Doctor	Treat symptomatically.

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5. Fire-fighting measures

Suitable extinguishing media	If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material. Water fog, foam, carbon dioxide or dry chemical.
Hazards from Combustion Products	If involved in a fire, it may emit fluorine compounds, oxides of nitrogen and hydrogen chloride.
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.
Hazchem Code	2X
Other Information	Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: Not applicable

6. Accidental release measures

Spills & Disposal	Wear protective clothing. Clear area of unprotected personnel. Contain spill and absorb with sand, soil or absorbent granules. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Environmental Precautions	Prevent from entering drains, waterways or sewers.

7. Handling and storage

Precautions for Safe Handling	Avoid skin and eye contact and inhalation of spray mist. APPROVED HANDLER: This product must be under the control of an approved handler when it is applied in a wide dispersive manner, or used by a commercial contractor. TRACKING: Is not required RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 3L or more is applied within 24 hours. Do not apply onto or into water.
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. Storage must be in accordance with NZS 8409 Management of Agrichemicals. Stores containing 100L of NANDO require secondary containment and are subject to signage, and more than 100L 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.

8. Exposure controls/personal protection

Occupational exposure limit values	No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product.
Appropriate engineering controls	Handle in well ventilated areas, generally natural ventilation is adequate.
Personal Protective Equipment	When opening the container, preparing spray and using the prepared spray wear safety goggles, waterproof gloves, cotton overalls buttoned to the neck and wrist, boots, and a NIOSH approved half face mask with organic vapour cartridge + dust/mist prefilter.
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.

9. Physical and chemical properties

Form	Liquid
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Appearance	yellow - orange opaque liquid
Boiling Point	100 °C (aqueous suspension)
Solubility in Water	Disperses in water.
Specific Gravity	1.26 @ 20°C
pH	7-9
Flammability	Non flammable.
Other Information	(SC) Suspension Concentrate

10. Stability and reactivity

Chemical Stability	Stable under normal conditions of handling and storage.
Hazardous Polymerization	Hazardous polymerisation will not occur.

11. Toxicological Information

Toxicology Information	No specific toxicological data is available for this product. Data below is for constituents.
Acute Toxicity - Oral	LD50 (rat) >5,000 mg/kg for fluazinam
Acute Toxicity - Dermal	LD50 (rat) >2,000 mg/kg for fluazinam
Acute Toxicity - Inhalation	LC50 (rat) 0.463 mg/L for fluazinam
Ingestion	Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury. However, swallowing of large amounts may cause injury.
Inhalation	May cause irritation to respiratory tract.
Skin	May irritate the skin.
Eye	May irritate the eyes.
Skin Sensitisation	Nando is not considered a skin sensitizer, however, Fluazinam technical produces a positive result to skin sensitization in guinea pigs.
Reproductive Toxicity	Suspected reproductive or developmental toxicant.
Subchronic/Chronic Toxicity	Target organ toxicant - liver (fluazinam)
Other Information	The Australian Acceptable Daily Intake (ADI) for fluazinam for a human is 0.004 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.4 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', December 2014).

12. Ecological information

Persistence and degradability	Fluazinam is not rapidly degradable. DT50 field soil = 26.5d for fluazinam.
Bioaccumulative Potential	Not bioaccumulative.
Basis for Assessment	Ecotoxicological data have not been determined specifically for this product. Data below is for the active ingredient unless otherwise stated.
Acute Toxicity - Fish	LC50 (96h) for rainbow trout is 0.036mg/l for fluazinam
Acute Toxicity - Daphnia	EC50 (48h) for daphnia magna is 0.18mg/L for fluazinam
Acute Toxicity - Algae	EC50 (96h) for Selenastrum capricornutum is 0.16mg/L for fluazinam
Acute Toxicity - Other Organisms	LD50 for bobwhite quail is 1,782mg/kg for fluazinam LD50 bee (oral) is >100µg/bee, (contact) is >200µg/bee for fluazinam LC50 (28d) worm is >1,000mg/kg for fluazinam

13. Disposal considerations



Safety Data Sheet

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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.

14. Transport information

Transport Information It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
U.N. Number 3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (fluazinam, 50%)
Transport hazard class(es) 9
Hazchem Code 2X
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 10L of NANDO 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

National and or International Regulatory Information Registered pursuant to the ACVM Act 1997, No. P7980
See www.foodsafety.govt.nz for registration conditions
Approved pursuant to the HSNO Act 1996, Approval Code HSR007763
See www.epa.govt.nz for approval controls.
Packaging & Labelling TOXIC * ECOTOXIC - keep out of reach of children
Hazard Rating Systems NFPA/HMIS: 3-1-0

16. Other Information

Date of preparation or last revision of SDS January 2014
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
Revisions Highlighted 5 yearly review carried out. Various changes and updates made to document.
...End Of MSDS...

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