



Infosafe No™ 3NULC Issue Date : January 2014 APPROVED by NUFARMNZ

Product Name **NANDO®**

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product Name NANDO®
Product Code 02995
Product Use For the control of a wide range of diseases in grapes, field tomatoes, potatoes, and vegetable brassicas.
Company Name Nufarm NZ
Address 6 Manu Street, Otahuhu
Auckland 2024 New Zealand
Emergency Tel. 0800 651 911
Telephone Number/Fax Tel: 0-9-270 4150
Fax: 0-9-270 4159
Product Type Fungicide
Email info@nz.nufarm.com
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. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

Ingredients	Name	CAS	Proportion
	Fluazinam	79622-59-6	500 g/L
	Ingredients determined to be non-hazardous	-	Balance

3. HAZARDS IDENTIFICATION

Reproductive Toxicity Suspected reproductive or developmental toxicant.
Inhalation May cause irritation to respiratory tract.
Ingestion Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.
However, swallowing of large amounts may cause injury.
Skin May irritate the skin.
Eye May irritate the eyes.
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.

4. 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.

Infosafe No™ 3NULC	Issue Date : January 2014	APPROVED by NUFARMNZ
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Eye	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.

5. FIRE FIGHTING MEASURES

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.
Specific Methods	Keep up wind. Do not allow washings to reach sewage or effluent systems.
Hazardous Combustion Products	If involved in a fire, it may emit fluorine compounds, oxides of nitrogen and hydrogen chloride.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.
Flammability	Non flammable.
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

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.
Storage	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.
Packaging	TOXIC * ECOTOXIC - keep out of reach of children
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

National Exposure Standards	No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product.
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.
Eng. Controls	Handle in well ventilated areas, generally natural ventilation is adequate.

Infosafe No™ 3NULC	Issue Date : January 2014	APPROVED by NUFARMNZ
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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

Appearance yellow - orange opaque liquid
Boiling Point 100 °C (aqueous suspension)
Solubility in Water Disperses in water.
Specific Gravity (H2O=1) 1.26 @ 20°C
pH Value 7-9
Flammability Non flammable.
Other Information (SC) Suspension Concentrate

10. STABILITY AND REACTIVITY

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.
Inhalation May cause irritation to respiratory tract.
Ingestion Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.
 However, swallowing of large amounts may cause injury.
Skin May irritate the skin.
Eye May irritate the eyes.
Reproductive Toxicity Suspected reproductive or developmental toxicant.
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
Skin Sensitisation Nando is not considered a skin sensitizer, however, Fluazinam technical produces a positive result to skin sensitization in guinea pigs.
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', Sept 2013).

12. ECOLOGICAL INFORMATION

Basis for Assessment Ecotoxicological data have not been determined specifically for this product. Data below is for the active ingredient unless otherwise stated.
Persistence / Degradability Fluazinam is not rapidly degradable.
 DT50 field soil = 26.5d for fluazinam.
Bioaccumulation Not bioaccumulative.
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



Material Safety Data Sheet

infosafe
CS: 1.7.2

Page: 4 of 4

Infosafe No™ 3NULC Issue Date : January 2014 APPROVED by NUFARMNZ

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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

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

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

U.N. Number 3082

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (fluazinam, 50%)

DG Class 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

Packaging & Labelling TOXIC * ECOTOXIC - keep out of reach of children

Hazard Rating NFPA/HMIS: 3-1-0

National Legislation 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.

UK Legislation info@nz.nufarm.com

16. OTHER INFORMATION

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

SDS History March 2010

Revisions Highlighted The SDS was reviewed due to change in HSNO classifications. Various changes have been made to the data.
...End Of MSDS...

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