

Infosafe No™ 3NUCP	Issue Date : June 2017	ISSUED by NUFARMNZ
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 Product Name **VITAFLO® 200**

1. Identification

GHS Product Identifier	VITAFLO® 200
Product Code	03107
Product Type	Fungicide
Company Name	Nufarm NZ
Address	6 Manu Street, Otahuhu Auckland 2024 New Zealand
Telephone/Fax Number	Tel: 0-9-270 4150 Fax: 0-9-270 4159
Emergency phone number	0800 651 911
Recommended use of the chemical and restrictions on use	Controls the major seed borne and soil borne diseases in wheat, barley, oats and maize.
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, 6.3B skin irritant, 6.4A eye irritant, 6.5B sensitiser, 6.9B target organ toxicant, 9.1A aquatic toxicant, 9.3C terrestrial vertebrate toxicant, TOXICITY Harmful - may be harmful if swallowed, inhaled or absorbed through the skin. May cause eye irritation. May cause skin irritation or sensitisation from prolonged skin contact. May cause damage to the heart and cardiovascular system from repeated oral exposure at high doses. ECOTOXIC Very toxic to aquatic organisms. Harmful to terrestrial vertebrates.
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3. Composition/information on ingredients

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Carboxin	5234-68-4	200 g/L
	Thiram	137-26-8	200 g/L

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	Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance.
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	Water fog, foam, carbon dioxide or dry chemical.
Hazards from Combustion	If involved in a fire, it may emit toxic fumes of phosgene, hydrogen chloride and oxides of nitrogen.
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. APPROVED HANDLER: This product must be under the control of an approved handler during use. TRACKING: Is not required
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.
Other Information	Stores containing 100L of Vitaflo 200 require secondary containment and are subject to signage, and more than 100L require emergency response plans. 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. WES TWA for thiram = 1mg/m ³
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, 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.

9. Physical and chemical properties

Form	Liquid
Physical and Chemical Properties	Red-purple liquid with faint odour
Solubility in Water	Negligible
Specific Gravity	1.14g/mL @ 20°C

Infosafe No™ 3NUCP	Issue Date : June 2017	ISSUED by NUFARMNZ
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pH 7

Other Information (SC) Suspension Concentrate

10. Stability and reactivity

Chemical Stability Stable under normal conditions of handling and storage.

Conditions to Avoid Will thicken irreversibly with heat. May deteriorate on prolonged exposure to heat, air or moisture.

Incompatible Materials Strong acids and alkalis. Not compatible with oxidizers.

11. Toxicological Information

Toxicology Information No specific toxicological data is available for this product. Data below is for constituents.

Acute Toxicity - Oral LD50 (rabbit) 210mg/kg for thiram
LD50 (rat) 2,864mg/kg for carboxin

Acute Toxicity - Inhalation LC50 (rat, female) 3.46mg/L/4h for thiram

Skin Sensitisation Sensitising (guinea pig) for thiram

Serious eye damage/irritation Irritating to eyes (thiram and carboxin)

Respiratory Irritation Irritating (thiram)

Skin corrosion/irritation Irritating to skin (thiram)

Subchronic/Chronic Toxicity Target organ - cardiovascular system (thiram)
LOAEL (rat) 20.4mg/kg bw/day

Other Information The Australian Acceptable Daily Intake (ADI) for thiram 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). The Australian Acceptable Daily Intake (ADI) for carboxin for a human is 0.08 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 8.5 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: Aust Govt Dept. of Health, Office of Chemical Safety, 'ADI List', December 2014).

12. Ecological information

Persistence and degradability Thiram is persistent
Thiram and carboxin are not bioaccumulative

Environmental Fate Thiram DT50 (soil and water) = 0.5 days (sandy soil, pH 6.7).
Carboxin DT50 (soil) = <1 day Koc 71.

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) carp 0.3µg/L for thiram
LC50 (96h) bluegill sunfish 3.6mg/L for carboxin

Acute Toxicity - Algae EC50 (5d) Selenastrum capricornutum 0.46ppm for thiram
EC50 (96h) Chlorella 2.4mg/L for carboxin

Acute Toxicity - Other Organisms LC50 (96h) mysid 3.36ppb for thiram

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 seed treatment machine. 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.



Safety Data Sheet

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CS: 1.7.2

Page: 4 of 4

Infosafe No™ 3NUCP Issue Date : June 2017 ISSUED by NUFARMNZ

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U.N. Number	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (thiram 20%)
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 this product 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. P2694 See www.foodsafety.govt.nz for registration conditions Approved pursuant to the HSNO Act 1996, Approval Code HSR000476 See www.epa.govt.nz for approval controls.
Packaging & Labelling	HARMFUL * ECOTOXIC - keep out of reach of children
Hazard Rating Systems	NFPA/HMIS: 2-1-1

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 5 yearly review carried out. Various changes and updates made to document.
Revisions Highlighted	
Other Information	Supersedes SDS issued June 2012 ...End Of MSDS...

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