

Infosafe No™ 3NV5G	Issue Date : November 2020	ISSUED by NUFARM
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 Product Name **AMISHIELD®**

Classified as hazardous

## 1. Identification

<b>GHS Product Identifier</b>	AMISHIELD®
<b>Product Code</b>	02400
<b>Product Type</b>	Fungicide
<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>E-mail Address</b>	nzinfo@nufarm.com
<b>Recommended use of the chemical and restrictions on use</b>	A fungicide for use as a seedling drench to control clubroot in vegetable and leafy vegetable brassicas.
<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>GHS classification of the substance/mixture</b>	Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.
<b>Signal Word (s)</b>	WARNING
<b>Hazard Statement (s)</b>	H351 Suspected of causing cancer. H410 Very toxic to aquatic life with long lasting effects.
<b>Precautionary statement – General</b>	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use.
<b>Pictogram (s)</b>	Health hazard, Environment
	 
<b>Precautionary statement – Prevention</b>	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P281 Use personal protective equipment as required.
<b>Precautionary statement – Response</b>	P308+P313 IF exposed or concerned: Get medical advice/attention. P391 Collect spillage.
<b>Precautionary statement – Storage</b>	P405 Store locked up.
<b>Precautionary statement – Disposal</b>	P501 In the case of a substance that is in compliance with a HSN0 approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.
<b>Other Information</b>	6.7B Suspected carcinogen, 9.1A Aquatic toxicant.

## 3. Composition/information on ingredients

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Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Amisulbrom	348635-87-0	50 %
	Other components		to 100%

#### 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 induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.
<b>Skin</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>Eye contact</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>First Aid Facilities</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
<b>Advice to Doctor</b>	Treat symptomatically.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water spray, foam, CO2 or dry chemical.
<b>Unsuitable Extinguishing Media</b>	High volume water jet.
<b>Hazards from Combustion Products</b>	Carbon dioxide, carbon monoxide, halogenated compounds and oxides of nitrogen and sulphur are potential thermal decomposed products.
<b>Special Protective Equipment for fire fighters</b>	Full protective clothing and self-contained breathing apparatus.
<b>Specific Methods</b>	Keep up wind to avoid inhalation of gases, vapours, fumes and smoke. Do not allow washings to reach sewage or effluent systems. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.
<b>Hazchem Code</b>	2Z
<b>Decomposition Temp.</b>	Data not available.
<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>	Avoid discharge to the aquatic environment.

#### 7. Handling and storage

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<b>Precautions for Safe Handling</b>	Do not breathe dust, spray, mists. CERTIFIED HANDLER : Is not required. TRACKING: Is not required. Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area. 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.
<b>Conditions for safe storage, including any incompatibilities</b>	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 are subject to secondary containment and signage and more than 100 kg require emergency response plans.
<b>Other Information</b>	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

<b>Occupational exposure limit values</b>	The following ADE and PDE values have been set for amisulbrom ADE = 0.12 mg/kg bw/day PDE (food) = 0.084 mg/kg bw/day PDE (drinking water) = 0.014 mg/kg bw/day PDE (other) = 0.012 mg/kg bw/day No EEL's have been set for this substance.
<b>Appropriate engineering controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate. Avoid generation of dust when handling solid. If dust generation is unavoidable, use forced draft to keep dust away from operator, or wear suitable dust respirator.
<b>Personal Protective Equipment</b>	When opening the container, preparing spray and using the prepared spray wear safety goggles, washable hat, waterproof 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

<b>Form</b>	Solid
<b>Appearance</b>	Pale brown granular solid.
<b>Odour</b>	Odourless.
<b>Decomposition Temperature</b>	Data not available.
<b>Melting Point</b>	128.6-130.0°C (amisulbrom)
<b>Boiling Point</b>	Not applicable
<b>Solubility in Water</b>	0.11mg/L at 20°C
<b>Solubility in Organic Solvents</b>	Toluene 88.6g/L, Methanol 10.1 g/L at 20°C
<b>pH</b>	5.6 (1% solution)
<b>Vapour Pressure</b>	1.8 x 10 <sup>-8</sup> Pa (amisulbrom, 25°C)
<b>Vapour Density (Air=1)</b>	Not applicable.
<b>Partition Coefficient: n-octanol/water</b>	Kow LogP =4.4 (amisulbrom)
<b>Density</b>	0.66 g/ml (Pour density)

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<b>Flash Point</b>	Not applicable.
<b>Flammability</b>	Not flammable.
<b>Auto-Ignition Temperature</b>	373°C
<b>Explosion Properties</b>	Not explosive
<b>Oxidising Properties</b>	Not oxidising
<b>Kinematic Viscosity</b>	Data not available.
<b>Other Information</b>	Water Dispersible Granule.

## 10. Stability and reactivity

<b>Reactivity</b>	May react with strong bases, acids or strong oxidizing agents, such as chlorates, nitrates, peroxides.
<b>Chemical Stability</b>	Stable under normal conditions of handling and storage.
<b>Conditions to Avoid</b>	Avoid high temperatures. Protect from sunlight, open flame, sources of heat and humidity.
<b>Incompatible Materials</b>	May react with strong bases, acids or strong oxidizing agents, such as chlorates, nitrates, peroxides.
<b>Hazardous Decomposition Products</b>	Thermal decomposition products include carbon dioxide, carbon monoxide, halogenated compounds and oxides of nitrogen and sulphur.
<b>Possibility of hazardous reactions</b>	No data available.
<b>Hazardous Polymerization</b>	Hazardous polymerisation is not possible.

## 11. Toxicological Information

<b>Toxicology Information</b>	No harmful effects are expected if the precautions on the label and this SDS are followed.
<b>Acute Toxicity - Oral</b>	LD50 (rat) >2000 mg/kg for AMISHIELD
<b>Acute Toxicity - Dermal</b>	LD50 (rat) >2000 mg/kg for AMISHIELD
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) >5.20 mg/l for AMISHIELD
<b>Eye</b>	Not an eye irritant.
<b>Respiratory sensitisation</b>	Not a respiratory sensitiser.
<b>Skin Sensitisation</b>	Product is not a skin sensitiser.
<b>Germ cell mutagenicity</b>	Not mutagenic (amisulbrom)
<b>Carcinogenicity</b>	NOEL (rats) 96/129 mg/kg/day (2 years)
<b>Reproductive Toxicity</b>	No effects on reproduction. NOAEL (rats) 1200/261 mg/kg/day (Reproduction, M/F)
<b>STOT-single exposure</b>	Information not available.
<b>Aspiration Hazard</b>	Not relevant. Solid.
<b>Mutagenicity</b>	Data not available.
<b>Skin corrosion/irritation</b>	Not a skin corrosive.
<b>Other Information</b>	The Australian Acceptable Daily Intake (ADI) for amisulbrom for a human is 0.1 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 11 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive

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species. (Ref: Aust Govt Dept. of Health, Office of Chemical Safety, 'ADI List', March 2020).

## 12. Ecological information

<b>Persistence and degradability</b>	Amisulbrom is not persistent under field conditions. It has low potential to bioaccumulate.
<b>Mobility</b>	Immobile in soil.
<b>Bioaccumulative Potential</b>	This product is not bioaccumulative.
<b>Other Precautions</b>	Do not spray in high winds. Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
<b>Environmental Protection</b>	Spray drift can cause damage, read the label for more information.
<b>Acute Toxicity - Fish</b>	LC50 (96hr) for <i>Onchorhynchus mykiss</i> (Rainbow Trout) = 307µg/l for formulated product.
<b>Acute Toxicity - Daphnia</b>	EC50 (48hr) <i>Daphnia magna</i> = 787µg/L for formulated product.
<b>Acute Toxicity - Algae</b>	ErC50 (72hr) <i>P. subcapitata</i> >10,000 µg/L for formulated product.
<b>Acute Toxicity - Other Organisms</b>	Birds: LD50 for bobwhite quail and mallard duck >2000 mg/kg for amisulbrom. Bees: LD50 (oral, contact 48 hr, <i>Apis mellifera</i> ) >100µg/bee for amisulbrom. Earthworm: LC50 (14 days, <i>Eisenia foetida</i> ) >1000 mg/kg of soil.

## 13. Disposal considerations

<b>Product Disposal</b>	To avoid disposal all attempts should be made to utilise the product completely in accordance with it's registered use. Dilute unusable product according to the label and pour onto fallow land. Prevent the product entering natural water sources.
<b>Container Disposal</b>	Ensure container is completely empty. Crush and bury in a suitable landfill. Dispose of product only by using according to the label, or at an appropriate 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>U.N. Number</b>	3077
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. - (contains amisulbrom, 50%)
<b>Transport hazard class(es)</b>	9
<b>Hazchem Code</b>	2Z
<b>Packing Group</b>	III
<b>Storage and Transport</b>	Store in cool place and out of direct sunlight.
<b>EPG Number</b>	-
<b>IERG Number</b>	47
<b>IMO Marine Pollutant</b>	Yes.
<b>Other Information</b>	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

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<b>National and or International Regulatory Information</b>	Registered pursuant to the ACVM Act 1997, No. P9658 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 HSR101440 See <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for approval controls.
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## 16. Other Information

**Date of preparation or last revision of SDS** N/A. First Issue.

**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  
...End Of MSDS...

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