

Infosafe No™ 3NV3V	Issue Date : October 2019	ISSUED by NUFARM
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 Product Name **DIGGER EW**

## 1. Identification

<b>GHS Product Identifier</b>	DIGGER EW
<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>Email</b>	nzinfo@nufarm.com
<b>Recommended use of the chemical and restrictions on use</b>	A triazole (DMI) fungicide for the control of powdery mildew on grapes.
<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>	DANGER
<b>Hazard Statement (s)</b>	H227 Combustible liquid H304 May be fatal if swallowed and enters airways. H371 May cause damage to organs. H411 Toxic to aquatic life with long lasting effects.
<b>General Precautionary Statement (s)</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>	Exclamation mark, Health hazard, Environment,



<b>Precautionary statement – Prevention</b>	P210 Keep away from open flames and sources of ignition. P260 Do not breathe mist, vapours or spray. P264 Wash hands and face thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves, protective clothing, face and eye protection.
<b>Precautionary statement – Response</b>	P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. P331 Do NOT induce vomiting. P370+P378 In case of fire: Use dry chemical, carbon dioxide, water spray, fog or foam for extinction. P391 Collect spillage.
<b>Precautionary statement – Storage</b>	P403+P235 Store in a well-ventilated place. Keep cool.
<b>Precautionary statement – Disposal</b>	P405 Store locked up. P501 Dispose of contents only by using according to the label, or at an approved landfill. Do not burn.
<b>Other Information</b>	3.1D flammable liquid, 6.1E acute toxicant, 6.9B target organ toxicant, 9.1B aquatic toxicant,

## 3. Composition/information on ingredients

<b>Chemical Characterization</b>	Liquid		
<b>Ingredients</b>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>

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Difenoconazole	119446-68-3	125 g/L
Hydrocarbon solvent	64792-94-5	180 g/L
Other Ingredients		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. Do not scrub the skin.

**Eye contact** Flush eyes with plenty of water for 15 minutes, holding eyelids open if necessary. Remove contact lenses if present and easy to do so. 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.

## 5. Fire-fighting measures

**Suitable extinguishing media** Alcohol resistant foam, water spray or fog  
Dry chemical powder Carbon dioxide

**Unsuitable Extinguishing Media** Do not use a high volume water jet or a solid water stream to extinguish, as this will spread the fire.

**Hazards from Combustion Products** If involved in a fire, may emit toxic fumes, smoke and hazardous gases including hydrogen chloride, carbon monoxide and dioxide, oxides of carbon, nitrogen and incomplete combustion products.

**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. Keep containers cool with water spray.

**Hazchem Code** 2Z

**Decomposition Temp.** Data not available.

**Other Information** Location certificate: Not applicable.  
Hazardous Atmosphere Zone: Not applicable.  
Number of fire extinguishers: 2 for 500L or more.

## 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. Wash area with water and absorb with further inert material. Dispose of waste safely 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.  
CERTIFIED HANDLER: Not applicable.  
It is the duty of the PCBU that a person who uses, handles, manufactures or stores DIGGER EW (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.  
TRACKING: Is not required.

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**Conditions for safe storage, including any incompatibilities** RECORD KEEPING: Is not required.  
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 1000L of DIGGER EW require secondary containment and are subject to signage, and more than 1000L require emergency response plans.

**Other Information** 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.  
However product contains solvent components with the following WES TWA exposure limits:  
Heavy aromatic hydrocarbon TWA: 15ppm

**Appropriate engineering controls** Handle in well ventilated areas, particularly if handling in confined spaces. Generally natural ventilation is adequate.  
Avoid skin and eye contact and inhalation of spray mist.

**Personal Protective Equipment** When mixing or applying wear face and eye protection, impervious gloves, boots and overalls.

**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 splashes of concentrate from skin immediately. Wash protective clothing daily after work.

## 9. Physical and chemical properties

**Form** Liquid

**Appearance** White to off-white

**Odour** Characteristic solvent odour

**Decomposition Temperature** Data not available.

**Freezing Point** Data not available.

**Boiling Point** Data not available.

**Solubility in Water** Miscible, forms an emulsion in water

**Specific Gravity** 1.026g/mL

**pH** 4.0-7.0 (1% dilution)

**Vapour Pressure**  $3.3 \times 10^{-5}$  mPa @ 25°C (difenoconazole)

**Vapour Density (Air=1)** Data not available.

**Partition Coefficient: n-octanol/water** LogP Kow = 4.4 @ 25°C (difenoconazole)

**Flash Point** 81°C (closed cup)

**Flammability** Flammable.

**Auto-Ignition Temperature** Data not available.

**Kinematic Viscosity** Data not available.

**Other Information** (EW) Emulsion, oil in water

## 10. Stability and reactivity

**Chemical Stability** Stable under normal conditions of handling and storage.

**Conditions to Avoid** Excessive heat and open flames which might induce thermal decomposition.

**Incompatible Materials** Strong oxidizing agents. Strong acids.  
Reducing agents.

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<b>Hazardous Decomposition Products</b>	On thermal decomposition, may emit toxic fumes, smoke and hazardous gases including hydrogen chloride, carbon monoxide and dioxide, oxides of carbon, nitrogen and incomplete combustion products.
<b>Hazardous Polymerization</b>	Not known to occur.

## 11. Toxicological Information

<b>Toxicology Information</b>	No specific toxicological data is available for this product. Data below is for constituents unless otherwise stated.
<b>Acute Toxicity - Oral</b>	LD50 (rat) 1453mg/kg for difenoconazole LD50 (mice) >2000mg/kg for difenoconazole LD50 (rabbit) >2010mg/kg for difenoconazole
<b>Acute Toxicity - Dermal</b>	
<b>Acute Toxicity - Inhalation</b>	LC50 (rat, 4hr) >3.3mg/L for difenoconazole
<b>Ingestion</b>	Harmful if swallowed.
<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin</b>	Not a skin irritant
<b>Eye</b>	Information not available.
<b>Skin Sensitisation</b>	Not a skin sensitizer.
<b>Germ cell mutagenicity</b>	Information not available.
<b>Carcinogenicity</b>	Information not available.
<b>Reproductive Toxicity</b>	Information not available.
<b>STOT-repeated exposure</b>	Target organ toxicant.
<b>Aspiration Hazard</b>	Information not available.
<b>Mutagenicity</b>	Not expected to be mutagenic.
<b>Respiratory Irritation</b>	Not a respiratory irritant.
<b>Skin corrosion/irritation</b>	Not a skin irritant.
<b>Subchronic/Chronic Toxicity</b>	NOEL (2yrs) for rats: 1.0mg/kg/bw daily for difenoconazole NOEL (1.5yrs) for mice: 4.7mg/kg/bw daily for difenoconazole NOEL (1yr) for dogs: 3.4mg/kg/bw daily for difenoconazole Target: liver, heart, thyroid and kidneys
<b>Other Information</b>	The Australian Acceptable Daily Intake (ADI) for difenoconazole for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1 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', 31st Dec 2014).

## 12. Ecological information

<b>Persistence and degradability</b>	Difenoconazole is considered persistent in the aquatic environment (DT50 (whole system) >2 months and the soil environment (upper 80% DT50 192.8 days) In animals after oral administration, difenoconazole was rapidly eliminated practically to entirety with urine and faeces. Residue in tissues was not significant and there was no evidence for accumulation.
<b>Mobility</b>	Difenoconazole is practically immobile in soil.
<b>Environmental Fate</b>	Difenoconazole has moderate potential to bioaccumulate with a BCF of 330. Difenoconazole shows low potential for leaching due to strong adsorption to soil particles therefore is unlikely to leach below top-soil layer.
<b>Bioaccumulative Potential</b>	Not bioaccumulative.
<b>Other Precautions</b>	Do not contaminate dams, waterways or sewers with this product.
<b>Basis for Assessment</b>	Ecotoxicological data have not been determined specifically for this product.

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 Data below is for the active ingredient unless otherwise stated.

<b>Acute Toxicity - Fish</b>	LC50 (96hr) Bluegill sunfish 1.2mg/L LD50 (96hr) Rainbow trout 0.81mg/L
<b>Acute Toxicity - Daphnia</b>	EC50 (48hr) Daphnia magna 0.77mg/L
<b>Acute Toxicity - Algae</b>	EC50 (72hr) Scenedesmus subspicatus 0.032 - 1.2mg/L Chronic EC50 (14d) Duckweed, Lemna gibba 18.5mg/L
<b>Acute Toxicity - Other Organisms</b>	LD50 (oral) Japanese quail >2000mg/kg LD50 (oral, 9-11d) Mallard duck >2150mg/kg LD50 (dietary) Mallard duck >5000mg/kg/diet LD50 (dietary) Bobwhite quail 4760mg/kg/diet LD50 Honey Bees (oral) >187µg/bee, (contact) >100µg/bee LC50 Earthworm (14d) >610mg/kg/soil
<b>Other Information</b>	Other Aquatic Species: LC50 (96hr) Mysid shrimps 0.15mg/L LC50 (96hr) Eastern oysters 0.45mg/L

### 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 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>U.N. Number</b>	3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (difenoconazole 12.5%)
<b>Transport hazard class(es)</b>	9
<b>Hazchem Code</b>	2Z
<b>Packaging Method</b>	-
<b>Packing Group</b>	III
<b>Storage and Transport</b>	This product is classified as a hazardous substance and dangerous goods for transport in New Zealand according to LSTA New Zealand.
<b>EPG Number</b>	-
<b>IERG Number</b>	35
<b>IMO Marine Pollutant</b>	Yes. Environmentally Hazardous Substance mark required.
<b>EMS</b>	F-A, S-A
<b>Other Information</b>	Do not carry more than 10L of DIGGER EW 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. P9644 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 HSR101369 See <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for approval controls.
<b>Hazard Category</b>	WARNING - Combustible Liquid TOXIC * ECOTOXIC - keep out of reach of children

### 16. Other Information

<b>Date of preparation or last revision of SDS</b>	First issue - October 2019
<b>Contact Person/Point</b>	IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE 24Hr Tollfree Emergency No: 0800 651 911



# Safety Data Sheet

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24Hr Emergency No: National Poisons Centre Phone: 0800 764 766  
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