

SAFETY DATA SHEET

According to
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

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|---|
| Section 1. Identification of the material and the supplier |
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| | |
|--------------------------|---|
| Product: | Emerald 10WG |
| Product Use: | Fungicide |
| Restriction of Use: | Refer to Section 15 |
| | |
| New Zealand Supplier: | Adria Crop Protection Solutions |
| Address: | 407 State Highway 16 Kumeu 0841, Auckland |
| | |
| Telephone: | +64 9 412 9817 |
| Fax: | +64 9 412 9807 |
| Website: | www.adria.nz |
| | |
| Emergency No: | 0800 734 607 (24hr)3 0800 764 766 (National Poison Centre) |
| | |
| Date of SDS Preparation: | 19 July 2018 |

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| Section 2. Hazards Identification |
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This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval No: HSR007765

Pictograms



Chronic Ecotoxic

Signal Word: **Warning**

| HSNO Classification | Hazard Code | Hazard Statement | GHS Category |
|---------------------|-------------|--|-----------------|
| 6.9B | H373 | May cause damage to organs through prolonged or repeated exposure. | STOT RE 2 |
| 9.1B | H411 | Toxic to aquatic life with long lasting effects. | Aquatic Acute 2 |

| Prevention Code | Prevention Statement |
|-----------------|-----------------------------------|
| P103 | Read label before use. |
| P260 | Do not breathe dust. |
| P273 | Avoid release to the environment. |

| Response code | Response Statement |
|---------------|--------------------|
| | |

| | |
|------|--|
| P314 | Get medical advice/attention if you feel unwell. |
| P391 | Collect spillage. |

| | |
|---------------------|--------------------------|
| Storage Code | Storage Statement |
| None allocated | |

| | |
|----------------------|---------------------------|
| Disposal Code | Disposal Statement |
| P501 | Refer to Section 13. |

Section 3. Composition / Information on Hazardous Ingredients

| Ingredients | Wt% | CAS NUMBER. |
|----------------|-----|-------------|
| Difenoconazole | 10 | 119446-68-3 |

Section 4. First Aid Measures

Routes of Exposure:

| | |
|--------------|---|
| If in Eyes | Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention. |
| If on Skin | Wash affected areas with soap and water. If skin irritation occurs: Get medical advice/attention. |
| If Swallowed | Rinse mouth. If swallowed do NOT induce vomiting. Never give anything to an unconscious person. Seek medical attention immediately if required. |
| If Inhaled | Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult. |

Most important symptoms and effects, both acute and delayed

Symptoms:

| | |
|--------------------|--|
| Ingestion: | Not applicable. |
| Inhalation: | Not applicable. |
| Skin: | Not applicable. |
| Eye: | Not applicable. |
| Chronic: | May cause damage to organs through prolonged or repeated exposure. |

Treatment: Treat according to symptoms (decontamination, vital functions). No known specific antidote.

Section 5. Fire Fighting Measures

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|---|---|
| Hazard Type | This product is not flammable. |
| Hazards from combustion products | Combustion products are toxic and/or irritant. Measures have to be taken to prevent the contaminated extinguishing agent from seeping into the ground or from spreading uncontrollably. |
| Suitable Extinguishing media | Use dry chemical, foam or CO2 extinguishing media. |
| Recommended protective clothing & Precautions for firefighters | Wear SCBA and chemical-protective clothing. |
| HAZCHEM CODE | 2Z |

Section 6. Accidental Release Measures

Personal precautions:

Use protective clothing as per Section 8). Avoid contact with skin, eyes and clothing. Remove contaminated clothes and shoes immediately.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Spill and Disposal procedures:

Absorb spills with inert material and place in waste containers. Wash area with water and absorb with further inert material. Dispose of waste safely, according to Local Council regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Do not breathe dust.
- Avoid release to the environment.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store in original container, tightly closed, away from foodstuffs.
- Store in a cool, dry, well ventilated place and protect from sunlight.
- Avoid temperatures above 35°C.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

| Substance | TWA | | STEL | |
|-----------|-----|-------------------|------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ |

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

Engineering Controls / Industrial Hygiene

Ensure there is sufficient ventilation of the area.

Personal Protection Equipment



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|--------------------|--|
| Eyes | Safety goggles with side-shields. |
| Hands | Wear suitable gloves resistant to chemical penetration e.g. nitrile rubber gloves with a minimum thickness of 0.4 mm. |
| Skin | Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure. |
| Respiratory | Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles. |

| | |
|----------------|--|
| General | <p>Keep out of reach of children. Wear protective clothing such as impervious gloves, waterproof hat, coat and trousers when using. Avoid contact with skin or eyes and inhalation of spray mist. Wash hands and exposed skin after use and before meals.</p> |
|----------------|--|

Section 9 Physical and Chemical Properties

| | |
|---|---------------------------|
| Appearance | Water dispersible granule |
| Colour | Off-white |
| Odour | Characteristic |
| Odour Threshold | Not available |
| pH | 8.5 |
| Boiling Point | Not available |
| Melting Point | ± 80 °C |
| Freezing Point | Not available |
| Flash Point | Not available |
| Flammability | Not available |
| Upper and Lower Explosive Limits | Not available |
| Vapour Pressure | Not available |
| Vapour Density | Not available |
| Density | ± 0.5 g/cm ³ |
| Water Solubility | Not available |
| Partition Coefficient: | Not available |
| Ignition Temperature | >400 °C |
| Decomposition Temperature | Not available |
| Kinematic Viscosity | Not available |
| Particle Characteristics | Not available |

Section 10. Stability and Reactivity

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|---|---|
| Stability of Substance | This product is stable under normal conditions. |
| Possibility of hazardous reactions | None known |
| Conditions to Avoid | None known |
| Incompatible Materials | None known |
| Hazardous Decomposition Products | None known. |

Section 11 Toxicological Information

Acute Effects:

| | |
|-------------------|-----------------|
| Swallowed | Not applicable. |
| Dermal | Not applicable. |
| Inhalation | Not applicable. |
| Eye | Not applicable. |
| Skin | Not applicable. |

Chronic Effects:

| | |
|-------------------------------|--|
| Carcinogenicity | Not applicable. |
| Reproductive Toxicity | Not applicable. |
| Germ Cell Mutagenicity | Not applicable. |
| Aspiration | Not applicable. |
| STOT/SE | Not applicable. |
| STOT/RE | May cause damage to organs through prolonged or repeated exposure. |

Acute Toxicity -

| Chemical Name | LD50 (Oral) | LD50 (Dermal) | LC50 (inhalation) |
|---------------------------------|--------------------|---------------|-------------------|
| Difenoconazole (119446-68-3) | >2000mg/kg (Rats), | >2000mg/kg | - |

Section 12. Ecotoxicological Information

| | |
|---------------------------------------|---|
| Ecological effects information | 9.1B = Toxic to aquatic life with long lasting effects. |
| Persistence and degradability | No data available |
| Bioaccumulation | No data available |
| Mobility in Soil | No data available |
| Other adverse effects | No data available |
| Acute fish toxicity: | LC50 (96 h) for rainbow trout 0.81 mg/L |
| Toxicity for daphnia: | LC50 (48 h) 0.77 mg/L |
| Toxicity to algae: | EC50 (72 h) for Scenedesmus subspicatus 0.032-1.2 mg/L |
| Precautions: | Do not allow to enter waterways. |

Section 13. Disposal Considerations

Disposal Method:

Ensure the container is empty. Rinse the container and add the residue to the spray tank. If allowed under local regulations burn if circumstances, especially wind direction, permit otherwise crush and bury in an approved local authority facility. DO NOT reuse this container for any other purpose.

Empty container precautions:

Avoid contamination of any water supply with chemical or empty container.

Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2012



Road, Rail, Sea and Air Transport

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|--|--|
| UN No | 3077 |
| Class - Primary | 9 |
| Packing Group | III |
| Proper Shipping Name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Difenoconazole) |
| Marine Pollutant | Yes |
| Special Provisions-Limited Quantities | If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG. |

Section 15 Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval Code: HSR007765

HSNO Classification: 6.9B, 9.1B

| HSW (HS) Regulations 2017 | Trigger Quantity |
|--|---|
| Certified Handlers | Not required |
| Signage Trigger Quantities (Schedule 3) | 1000kg (9.1B) |
| Emergency Response Plan (Schedule 5) | 1000kg (9.1B) |
| Secondary Containment (Schedule 5) | 1000kg (9.1B) |
| Tracking (Schedule 26) | Not required |
| For all further controls | Refer to EPA www.epa.govt.nz for controls document - HSR007765 |
| HSNO Additional Controls (Restrictions of use) | |
| 77A | This substance must not be applied onto or into water. |
| Hazardous Property Controls Notice 2017 | |
| HPC Notice Part 4 Clause 47 | Equipment for class 9 substances must be appropriate |
| HPC Notice Part 4 Clause 48 | Records of application of class 9 pesticides and plant growth regulators |
| HPC Notice Part 4 Subpart A | Site and storage controls for class 9 substances |
| ACVM Act and Regulations | |
| ACVM Approval No See www.foodsafety.govt.nz for registration controls | P7651 |

Section 16 Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label. The data contained in this safety data sheet is based on our current knowledge and describes the product only with regard to safety requirements. The data does not describe the products properties. Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any existing laws and legislation are observed.

Glossary

| | |
|------------------|---|
| EC ₅₀ | Median effective concentration. |
| EEL | Environmental Exposure Limit. |
| EPA | Environmental Protection Authority |
| HSNO | Hazardous Substances and New Organisms. |
| HSW | Health and Safety at Work. |
| LC ₅₀ | Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it. |
| LD ₅₀ | Lethal dose to kill 50% of test animals/organisms. |
| LEL | Lower explosive level. |
| OSHA | American Occupational Safety and Health Administration. |
| TEL | Tolerable Exposure Limit. |
| TLV | Threshold Limit Value-an exposure limit set by responsible authority. |
| UEL | Upper Explosive Level |
| WES | Workplace Exposure Limit |

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.

3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

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Please contact Adria, if further information is required.

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