

# SAFETY DATA SHEET

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

## Section 1. Identification of the material and the supplier

Product: **Unistar**  
 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)**  
**0800 764 766 (National Poison Centre)**

Date of SDS Preparation: 6 June 2024 v2

## Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

**EPA Approval No: HSR100900**

### Pictograms



Chronic



Ecotoxic

Signal Word: **Warning**

GHS Classification and Category	Hazard Code	Hazard Statement
Carcinogenicity Cat. 2	H351	Suspected of causing cancer.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment chronic Cat. 2	H411	Toxic to aquatic life with long lasting effects.

Prevention Code	Prevention Statement
P103	Read carefully and follow all instructions.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe fumes, vapours or spray.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in SDS Section 8.

Response code	Response Statement
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.
P308 + P313	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

Storage Code	Storage Statement
P405	Store locked up.

Disposal Code	Disposal Statement
P501	Refer to Section 13.

### Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Content (%w/v)	CAS NUMBER.
Boscalid	50.0	188425-85-6
Non-hazardous ingredients	To balance	

### Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
If on Skin	IF ON SKIN: Wash skin with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
If Swallowed	If swallowed do NOT induce vomiting. Rinse mouth. For advice, contact the National Poisons Centre on 0800 POISON (0800 764766) or a doctor immediately.
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:** Causes mild skin irritation.

**Eye:** Not applicable.

**Chronic:** Suspected of causing cancer. May cause damage to organs through single, prolonged or repeated exposure.

**Treatment:** No known specific antidote. Treat symptomatically (decontamination, vital functions).

**Section 5. Fire Fighting Measures**

<b>Hazard Type</b>	This product is not flammable.
<b>Hazards from products</b>	Carbon and nitrogen oxides.
<b>Suitable Extinguishing media</b>	Dry chemical, water spray, foam, carbon dioxide.
<b>Recommended protective clothing &amp; Precautions for firefighters</b>	Wear SCBA and chemical-protective clothing.
<b>HAZCHEM CODE</b>	<b>3Z</b>

**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:**

Contain and collect spillage with non-combustible absorbent materials e.g. sand, earth, vermiculite, diatomaceous earth. 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 carefully and follow all instructions.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe fumes, vapours or spray.
- Ventilation required.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Wear protective clothing as detailed in SDS Section 8.

**Precautions for Storage:**

- Store locked up.
- Keep away from heat and protect from sunlight.
- Protect against freezing.
- Store away from incompatible materials listed in Section 10.

**Section 8 Exposure Controls / Personal Protection****WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>

No ingredient has 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 2023 14TH EDITION.

## Engineering Controls / Industrial Hygiene

Ensure adequate ventilation.

### Personal Protection Equipment



<b>Eyes</b>	Safety goggles with side-shields.
<b>Skin</b>	Wear suitable chemical resistant safety gloves (e.g. nitrile rubber (.4mm)). Body protection (chemical protection suit, boots) must be chosen depending on activity and possible exposure.
<b>Respiratory</b>	Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles.
<b>General</b>	Keep away from food, drink and animal feedstuffs. No eating, drinking or smoking during use. Wash hands and face before breaks and after work.

### Section 9 Physical and Chemical Properties

<b>Appearance</b>	Suspension concentrate
<b>Colour</b>	White
<b>Odour</b>	Characteristic
<b>Odour Threshold</b>	Not available
<b>pH</b>	6.0 – 8.5
<b>Boiling Point</b>	Not available
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Not available
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Density</b>	1.12 g/l
<b>Water Solubility</b>	Not available
<b>Octanol/water partition coefficient:</b>	Not available
<b>Auto Ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available
<b>Particle Characteristics</b>	Not available

### Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None known.
<b>Conditions to Avoid</b>	Temperature extremes.
<b>Incompatible Materials</b>	Oxidizing agents, acids and alkali.
<b>Hazardous Decomposition Products</b>	Carbon and nitrogen oxides.

### Section 11 Toxicological Information

#### Acute Effects:

<b>Swallowed</b>	Not applicable. Based on active ingredient: Acute LD <sub>50</sub> oral = >5 000mg/kg
<b>Dermal</b>	Not applicable. Based on active ingredient: Acute LD <sub>50</sub> dermal (rats) = >2000 mg/kg
<b>Inhalation</b>	Not applicable. Based on active ingredient: Acute LC <sub>50</sub> (rats) inh- 4 hr = 6.7 mg/L
<b>Eye</b>	Not applicable.
<b>Skin</b>	Not applicable.

**Chronic Effects:**

<b>Carcinogenicity</b>	Suspected of causing cancer.
<b>Reproductive Toxicity</b>	Not applicable.
<b>Germ Cell Mutagenicity</b>	Not applicable.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.
<b>STOT/RE</b>	May cause damage to organs through repeated or prolonged exposure.

**Section 12. Ecotoxicological Information**

<b>Ecological effects information</b>	Toxic to aquatic life with long lasting effects.
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulation</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>Other adverse effects</b>	No data available
<b>Acute fish toxicity:</b> Based on active ingredient	LC <sub>50</sub> (96h) rainbow trout 2.7 mg/ℓ
<b>Toxicity for daphnia:</b> Based on active ingredient	EC <sub>50</sub> (48h) 5.33 mg/ℓ
<b>Toxicity to algae:</b> Based on active ingredient	ErC <sub>50</sub> (96h) Pseudokirchneriella subcapitata 3.75 mg/ℓ
<b>Precautions:</b>	Do not allow to enter waterways.

**Section 13. Disposal Considerations****Disposal Method:**

Triple rinse container and add residue to spray tank. Return empty container to an AgRecovery collection point for disposal.

**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 5433:2020**

**Road, Rail, Sea and Air Transport**

<b>UN No</b>	3082
<b>Class - Primary</b>	9
<b>Packing Group</b>	III
<b>Proper Shipping Name</b>	<b>ENVIRONMENTALLY HAZARDOUS (BOSCALID), SUBSTANCE, LIQUID, N.O.S.</b>
<b>Marine Pollutant</b>	Yes
<b>Special Provisions-Limited Quantities</b>	If the product's individual container is below 5L, 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 2020

EPA Approval Code: HSR100900

<b>HSW (HS) Regulations 2017</b>	<b>Trigger Quantity</b>
Certified Handlers	Not required
Location Certificate	Not required
Signage Trigger Quantities (Schedule 3)	1000L
Emergency Response Plan (Schedule 5)	1000L
Secondary Containment (Schedule 5)	1000L
Tracking (Schedule 26)	Not required
<b>HSNO Additional Controls (Restrictions of use)</b>	<b>Refer to EPA <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> for controls document - HSR100900</b>
77A - <b>Application method restrictions</b>	The application of Unistar must be limited to ground-based application methods only[1]  [1] Ground-based methods of applying pesticides include, but are not limited to, application by ground boom, airblast or knapsack, and do not include aerial application methods
<b>ACVM Act and Regulations</b>	
ACVM Approval No See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration controls	P8733

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 <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	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 2023 14<sup>th</sup> edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
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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