



## SAFETY DATA SHEET

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

Product: **Bolide**  
Product Use: Fungicide  
Restriction of Use: Refer to Section 15

New Zealand Supplier: ADAMA New Zealand Ltd  
Address: Level 1/93 Bolt Road  
Tahunanui, Nelson 7011  
Telephone: +64 3 543 8275  
Fax Number: +64 3 543 8274

**Emergency Telephone: 0800 764 766 (National Poison Centre)  
0800 734 607 (24hr Emergency Response)**

Date of SDS Preparation: 30 September 2021

### Section 2. Hazards Identification

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

**EPA Approval No:** HSR101152

#### Pictograms



Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement
Eye irritation Category 2	H319	Causes serious eye irritation.
Carcinogenicity Category 2	H351	Suspected of causing cancer.
Reproductive toxicity Category 2	H361	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment acute Category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment chronic Category 1	H410	Very toxic to aquatic life with long lasting effects.

<b>Prevention Code</b>	<b>Prevention Statement</b>
P102	Keep out of reach of children.
P103	Read label before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe fumes, mist, vapours or spray.
P264	Wash hands thoroughly after handling
P273	Avoid unintended release into the environment.
P280	Wear protective gloves, clothing and eye protection.
P281	Use personal protective equipment as required.

<b>Response Code</b>	<b>Response Statement</b>
P101	If medical advice is needed, have product container or label at hand.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P391	Collect spillage.

<b>Storage Code</b>	
P405	Store locked up.

<b>Disposal Code</b>	<b>Disposal Statement</b>
P501	Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers and add rinsate to spray tank before puncturing and offering for recycling or landfill. Do not allow product to enter waterways. Do not burn product or container.

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

<b>Ingredients</b>	<b>Wt%</b>	<b>CAS NUMBER.</b>
Prochloraz	21-23	67747-09-5
2-ethylhexyl lactate	>10	186817-80-1
Epoxiconazole	<5	133855-98-8
Sodium dioctyl sulfosuccinate/ethanol	>1	Proprietary

### **Section 4. First Aid Measures**

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If needed: Get medical advice.
If on Skin	Wash with plenty of soap and water. Wash off with plenty of water and soap If needed: get medical advice/attention.
If Swallowed	Do not induce vomiting. Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediately get medical attention.

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. Get medical advice if breathing becomes difficult.

**Most important symptoms and effects, both acute and delayed**

**Symptoms:**

**Ingestion:** Not applicable.  
**Skin:** Not applicable.  
**Inhalation:** Not applicable.  
**Eyes:** Causes serious eye irritation.  
**Chronic:** May cause damage to organs through prolonged or repeated exposure. Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

**Section 5. Fire Fighting Measures**

<b>Hazard Type</b>	Non Flammable.
<b>Hazards from combustion products</b>	Carbon dioxide, Carbon monoxide, Nitrogen oxides, Chlorides.
<b>Suitable Extinguishing media</b>	Water spray, water fog, foam.
<b>Precautions for firefighters and special protective clothing</b>	Wear suitable protective clothing. Self-contained breathing apparatus. Fight fires from a protected location. Dike fire control water for later disposal.
<b>HAZCHEM CODE</b>	3Z

**Section 6. Accidental Release Measures**

Wear full protective clothing including eye/face protection. Evacuate area from unnecessary personnel.

In the event of minor spillage: Absorb in sand or other inert material. Use appropriate container to avoid environmental contamination.

In the event of major spillage: Collect and contain as much free liquid as possible. Dike spills using absorbent or impervious materials such as sand or clay for later disposal.

Dispose of according to Local Regulations.

**Section 7. Handling and Storage**

**Precautions for Handling:**

- Read label before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe fumes, mist, vapours or spray.
- Avoid unintended release into the environment.
- Wear protective gloves, clothing and eye protection.
- Use personal protective equipment as required.

**Precautions for Storage:**

- Store away from incompatible materials listed in Section 10.
- Keep away from children.
- Store locked up.
- Keep container tightly closed in its original container in a cool and well-ventilated place.
- Avoid temperatures above: 50 °C
- Keep in properly labeled containers.

**WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

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

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.

**Engineering Controls**

Ensure adequate ventilation, especially in confined areas.

**Personal Protection Equipment**

<b>Eyes</b>	Tightly sealing safety goggles with side shields. Avoid wearing contact lenses.
<b>Hands and Skin</b>	Wear suitable gloves, protective clothing and chemical resistant boots.
<b>Respiratory</b>	During spraying wear suitable respiratory equipment.
<b>General</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower. Wash hands thoroughly after handling. Wash clothing before re-using.

**Section 9****Physical and Chemical Properties**

<b>Appearance</b>	Translucent orange liquid
<b>Odour</b>	Faint odour - Chemical
<b>Odour Threshold</b>	Not applicable
<b>pH</b>	6.8-7.8 (1%)
<b>Boiling Point</b>	Not applicable
<b>Melting Point</b>	Prochloraz : 46-49 Epoxiconazole : 136.2
<b>Crystallization temperature</b>	Not applicable
<b>Flash Point</b>	=/ > 79 °C
<b>Flammability</b>	Not flammable
<b>Upper and Lower Exposure Limits</b>	Not applicable
<b>Vapour Pressure</b>	Not applicable
<b>Density</b>	Not applicable
<b>Relative Density</b>	1.0513 g/ml
<b>Solubilities</b>	Not applicable
<b>Partition Coefficient: n-octanol/water</b>	Prochloraz: 3.52, Epoxiconazole : 3.3
<b>Auto-ignition Temperature</b>	276°C
<b>Surface tension @ 25°C</b>	30.6, 24.7°C 29.8, 40°C
<b>Kinematic Viscosity</b>	Kinematic viscosity 94.5561 mm <sup>2</sup> /sec (20°C) Kinematic viscosity 31.0062 mm <sup>2</sup> /sec (40°C)
<b>Molecular Weight</b>	Prochloraz : 376.7 Epoxiconazole : 329.8

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Conditions to Avoid</b>	Decomposes upon heating. Protect from sunlight, open flame, sources of heat.
<b>Incompatible Materials</b>	Not available.
<b>Hazardous Decomposition Products</b>	nitrogen oxides, carbon monoxide, carbon dioxide, chlorides

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Non Hazardous - Oral, Rat LD50 (mg/kg) => 2000
<b>Dermal</b>	Non Hazardous - Dermal, Rat LD50 [mg/kg] = > 2000
<b>Inhalation</b>	Non-Hazardous - Inhalation, Rat LC50 [mg/l/4h] = > 7.45
<b>Eye</b>	Causes serious eye irritation.
<b>Skin</b>	Not applicable.

### Chronic Effects:

<b>Carcinogenicity</b>	Suspected of causing cancer.
<b>Reproductive Toxicity</b>	Suspected of damaging fertility or the unborn child.
<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 prolonged or repeated exposure.

## Section 12. Ecotoxicological Information

HSNO Classification: Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1.

96 H-LC50 - Rainbow trout [mg/l] : 7.05  
EC50 - Daphnia [mg/l] : 16.3 (Daphnia magna)  
72 H-EC50 - Algae [mg/l] : 0.0158 (Desmodesmus Subspicatus)

<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

## Section 13. Disposal Considerations

**Disposal Method:** Wherever possible completely use material by using according to label instructions. Dispose of unwanted product and wastes from spillages as hazardous substances in accordance with local and national regulations using a licensed waste disposal company. Triple rinse containers before puncturing and offering for recycling or landfill.



**Precautions:** Do not allow product to enter waterways.

**Disposal methods to avoid:** Do not burn product or container.

**Section 14 Transport Information****This product is classified as a Dangerous Good for transport in NZ; NZS 5433**Road and Rail Transport

UN No: 3082  
 Class-primary 9  
 Packing Group III  
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (225 g/l Prochloraz, 50 g/l Epoxiconazole)

Air Transport

UN No: 3082  
 Class-primary 9  
 Packing Group III  
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (225 g/l Prochloraz, 50 g/l Epoxiconazole)

Marine Transport

UN No: 3082  
 Class-primary 9  
 Packing Group III  
 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (225 g/l Prochloraz, 50 g/l Epoxiconazole)  
 Marine Pollutant Yes

**Special Provisions:**

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****EPA Approval Code:** HSR101152

**HSNO Classification:** Eye irritation Category 2, Carcinogenicity Category 2, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1.

<b>HSW (HS) Regulations 2017 and EPA Notices</b>		<b>Trigger Quantity</b>
Certified Handlers		Not Required
Location Certificate		Not required
Tracking Trigger Quantities		Not required
Signage Trigger Quantities		100L
Emergency Response Plan		100L
Secondary Containment		100L
<b>HSNO Additional Controls (Restrictions of use)</b>		
77A	The application of this substance is limited to ground-based application methods only.	
<b>Hazardous Property Controls Notice 2017</b>		
HPC Notice Part 1	Hazardous Property Controls preliminary provisions	
HPC Notice Part 3	Hazardous substances in a place other than a workplace	
HPC Notice Part 4 Subpart A	Substances that are hazardous to the environment: Site and storage controls	
HPC Notice Part 4 Subpart B	Use of substances that are hazardous to the	

	environment
HPC Notice Part 4 Clause 47	Equipment for environmentally hazardous substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of ecotoxic pesticides and plant growth regulators
HPC Notice Part 4 Clause 50(1)	The maximum application rate of this substance is 2 L BOLIDE/ha (0.45 kg prochloraz and 0.10 kg epoxiconazole/ha) with a maximum application frequency of two applications per calendar year.
HPC Notice Part 4 Clause 52	Agrichemicals that are hazardous to the aquatic environment must not be applied to water
HPC Notice Part 4 Subpart C	Qualifications required for the application of substances that are hazardous to the environment
<b>ACVM Act and Regulations</b>	
Registered pursuant to the ACVM Act 1997, See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a> for registration conditions	No. P009339

## Section 16 Other Information

### Glossary

ACVM	Agricultural Compounds and Veterinary Medicines Act 1997.
EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority.
HSNO	Hazardous Substances and New Organisms Act 1996.
HSW	Health and Safety at Work Act 2015.
HSW (HS) Regulations 2017.	Health and Safety at Work (Hazardous Substances) Regulations 2017.
LC50	Lethal concentration that will kill 50% of the test organisms
inhaling or ingesting it.	
LD50	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
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
5. HSW (Hazardous Substances) Regulations 2017

### Disclaimer:

This document has been issued by Adama New Zealand Ltd and serves as their Safety Data Sheet ('SDS'). It is based on information concerning the product which is held by Adama New Zealand Ltd or has been 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. While Adama New Zealand Ltd 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, Adama New Zealand 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. The information herein is given in good faith, but no warranty, express or implied is made.

Issue Date: 30 September 2021

Review Date: 29 September 2026

Product Name: Bolide  
Date of SDS: 30 September 2021

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