



## SAFETY DATA SHEET

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

Product: **Bolide**  
Item Code:  
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)**

Date of SDS Preparation: 30 August 2016

### Section 2. Hazards Identification

**This substance is hazardous according to the *HSNO (Minimum Degrees of Hazard) Regulations 2001***

**EPA Approval No: HSR101152**

#### Pictograms



Irritant



Chronic



Ecotoxic

Signal Word: **Warning**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.4A	H319	Causes serious eye irritation.	Category 2A
6.7B	H351	Suspected of causing cancer.	Category 2
6.8B	H361	Suspected of damaging fertility or the unborn child.	Category 2
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	Category 2
9.1A	H400	Very toxic to aquatic life.	Category 1

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe fumes, mist, vapours or spray.
P273	Avoid release to the environment.
P280	Wear protective gloves, clothing and eye protection.
P281	Use personal protective equipment as required.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage Code	
P405	Store locked up.

Disposal Code	Disposal Statement
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

Ingredients	Wt%	CAS NUMBER.
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.

### Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Non Flammable.
<b>Hazards from</b>	Carbon dioxide, Carbon monoxide, Nitrogen oxides, Chlorides .

<b>combustion products</b>	
<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 release to 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.

## 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 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-otanol/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 Classes:** 9.1A = Very toxic to aquatic life.

**Do not allow to enter waterways**

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 and add rinsate to spray tank 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. Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal.

## Section 14 Transport Information

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

### 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

Product Name: Bolide  
Date of SDS: 30 August 2016

Issued by: Technical Compliance Consultants (NZ) Ltd  
Tel: 64 9 475 5240 www.techcomp.co.nz

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. (225 g/l Prochloraz, 50 g/l Epoxiconazole)  
Marine Pollutant Yes

**Special Provisions:**

DGLQ Limit = 5L

**Section 15 Regulatory Information**

**This substance is hazardous according to the HSNO (Minimum Degrees of Hazard) Regulations 2001**

EPA Approval Code: HSR101152

HSNO Classification: 6.4A, 6.7B, 6.8B, 6.9B, 9.1A

HSNO Controls	Trigger Quantity
Approved Handler	ANY
Location Certificate	Not required
Tracking Trigger Quantities	EXEMPT
Signage Trigger Quantities	100L(9.1A)
Emergency Response Plan	100L(9.1A)
Secondary Containment	100L(9.1A)
Restrictions of Use	a) This substance must not be applied onto or into water b) The application of this substance is limited to ground-based application methods only. c) 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.

**Section 16 Other Information**

**Glossary**

EC50	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
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.
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

1. HSNO Approved Code of Practice: Preparation of Safety Data Sheets, September 2006.  
Disclaimer

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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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