SAFETY DATA SHEET

MOGUL ®

Date of Issue: 03rd October 2017

Date of Previous Issue: 12th September 2012

1. Identification of the Substance/Mixture and Supplier.

Product name:	Mogul
Other product names:	
Application:	A combination fungicide for control of number of diseases in cereals and ryegrass.
EPA approval:	HSR007993.
Company:	Bayer New Zealand Limited, 3 Argus Place, Hillcrest, North Shore 0627 New Zealand.
Telephone:	0800 428 246
Facsimile:	09 441 8645
Emergency telephone:	0800 734 607 (24hr)

2. Hazards Identification.

3.

Hazard classification:	Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
Classification and type:	**HSNO Class♦** 6.1E, 6.4A, 6.9B, 9.1B May be harmful if swallowed. Harmful – may cause eye irritation. Harmful – presumed to/may cause organ damage from repeated oral exposure at high doses. Toxic to aquatic organisms with long-lasting effects.
Risk & Safety Phrases:	R36, R40, R51

4. Composition/Information on Ingredients.

Chemical identity of ingredients

Mixture:

Ingredient	CAS No.	Content (%w/v)
Fluoxastrobin	193740-76-0	4.40
Prothioconazole	178928-70-6	8.80
2-Ethylhexanol propylene ethyleneglycol ether	64366-70-7	15.00
Arylethylphenylpolyglycol ether		5.00
Citric acid	77-92-9 201-069-1	1.00
Gamma-Butyrolactone	96-48-0 202-509-5	40.70

5. First Aid Measures.

General information:	Contaminated clothing and shoes must be removed immediately.
Skin contact:	After contact with skin, wash immediately with plenty of water and soap.
Eye contact:	Contamination of the eyes must be treated by thorough irrigation with water, with the eyelids held open. A doctor (or eye specialist) should be consulted immediately.
Ingestion:	Do not induce vomiting. Wash out mouth and water. Call a doctor immediately.
Inhalation:	Bring casualties into the fresh air. Call a doctor immediately.
Further information:	Contact the National Poisons and Hazardous Chemicals Information centre in Dunedin, PO Box 913, Dunedin. Phone 0800 764 766, 0800 POISON.

6. Fire-Fighting Measures.

Extinguishing media and methods:	Water spray, Carbon dioxide (CO2) Foam, Sand
Specific hazards during fire:	Nitrogen oxides (NOx) Sulphur dioxide (SO2) Carbon monoxide (CO) Hydrogen chloride (HCl) Hydrogen cyanide (hydrocyanic acid)
Recommended protective clothing:	Fire fighters must wear self contained breathing apparatus.

7. Accidental Release Measures.

	Emergency Procedures:
Personal Precautions:	Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and overalls.
Environmental Precautions:	Washings must be prevented from entering surface water drains or waterways.
Procedure for spill:	Keep all bystanders away. Wear goggles, half face-piece respirator with combined dust and vapour cartridge, full length clothing and PVC gloves.

	Contaminated material must be disposed of in accordance with all local authority requirements. a. For quantities up to 50L of product bury in a secure approved landfill site. b. For quantities greater than 50L seek advice from the manufacturer (use emergency contact number) c. before attempting disposal. Contain in a secure location until disposal method is established. Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.
Procedure for Disposal:	a) Triple rinsing or preferably pressure rinsing containers with water. Add the rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site. b) Empty containers: Take to an Agrecovery collection site. c) Product or unused spray mix should be disposed of according to label instructions.

8. Handling and Storage.

Handling: Storage:	Use only in area provided with appropriate exhaust ventilation. Store in a place accessible by authorized persons only. Keep containers tightly closed in a cool, well-ventilated place. Storage temperature -10 - >40°C.

9. Exposure Control/Personal Protection

Engineering measures: Respiratory protection: Hand protection:	Use in well ventilated areas. Where insufficient ventilation, use suitable respiratory protection solvent-resistant gloves.
Eye protection:	Chemical goggles/face protection.
Other protective equipment:	Wear suitable protective clothing.
Respiratory protection:	Full dust mask (Class P2).
Hygiene measures:	Avoid contact with eyes and skin. Store work clothes and street clothes separately. Wash hand before breaks and at the end of work. Change contaminated protective clothing. Keep away from food, drinks and tobacco.

10. Physical and Chemical Properties

Appearance	
Form:	Liquid, clear
Colour:	Tan
Odour:	Aromatic
Safety data:	
pH:	4 – 5 @ 1%
Flash point:	96°C
Ignition temperature	405°C
Density	Ca. 1.13g/cm³ at 20°C
Water solubility	Emulsifiable
Viscosity, dynamic	58.5mPa at 20°C
Viscosity, kinematic	517mm2/s at 20°C
Surface tension	32.13 mN/m
Explosivity	Not explosive

11. Stability and Reactivity

Conditions to avoid:	Extremes of temperature and direct sunlight.
Materials to avoid	None
Hazardous reactions:	No hazardous reactions when stored and handled according to prescribed instructions. Stable under recommended storage conditions.

12. Toxicological Information

Acute oral toxicity:	LD_{50}: (rat) >2,500mg/kg
Acute inhalation toxicity:	LC_{50}: (rat) >5077mg/l Exposure time: 4h
Acute Dermal Toxicity	LD_{50}(rat) >4,000mg/kg
Skin irritation:	Non-irritant (rabbit)
Eye irritation:	Non-irritant (rabbit)
Sensitization	Non-sensitizing (guinea pig)

13. Ecological Information

Acute fish toxicity:	LC50: 3.29mg/l Rainbow trout (*Oncorhynchus mykiss*) Exposure time: 96h
Toxicity for daphnia:	EC50: 6.9mg/l Water flea : (Daphnia magna) Exposure time: 48 h
Toxicity to algae:	EC50 13mg/l (*Pseudokirchneriella subcapitata*) Growth rate Exposure time: (77h)

14. Disposal Considerations.

Disposal:	Ensure product is not discharged to the environment. For disposal use a certified waste disposal company.
Empty container precautions:	After final product withdrawal, all residues must be removed from containers (drip free, powder free or paste free). Once the product residues adhering to the walls of the containers have been rendered harmless, the product and hazard labels must be invalidated. Take to an Agrecovery collection site.

15. Transportation Information.

Rail/Road (RID/ADR)	UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (fluoxastrobin, prothioconazole solution), Class 9, Packing Group III, Hazchem 3Z.
Sea (IMDG-Code)	UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (fluoxastrobin, prothioconazole solution), Class 9, Packing Group III, Hazchem 3Z. Marine Pollutant.
Air (ICAO/IATA)	UN 3082 Environmentally Hazardous Substance, Liquid, N.O.S. (fluoxastrobin, prothioconazole solution), Class 9, Packing Group III, Hazchem 3Z.

16. Regulatory Information.

HSNO Approval Number:	HSR007993
HSNO Controls(inc. Tracking):	See www.epa.govt.nz for controls.
Approved Handlers required:	Approved Handlers required at time of use.
ACVM Registration:	P8203
ACVM Controls:	See www.foodsafety.govt.nz for registration conditions.

17. Other Information:

6.1E May be harmful if swallowed.
6.4A Harmful – may cause eye irritation.
6.9B Harmful – presumed to/may cause organ damage from repeated oral exposure at high doses.
9.1B Toxic to aquatic organisms with long-lasting effects.

R36 Irritating to eyes.
R40 Limited evidence of carcinogenic effect.
R51 Toxic to aquatic organisms.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.