SAFETY DATA SHEET

Section 1 - Identification

Product identifier **MIGIWA® FUNGICIDE**

Other means of identification

SDS No. 782

Recommended use of the chemical and restrictions on use

Recommended use Fungicide.

Restrictions on use See product label for restrictions.

Details of manufacturer or importer

Manufacturer

Company name AgNova Technologies Pty Ltd

Address Unit 4, 482 Kingsford Smith Drive
Hamilton, Queensland 4007
Australia

Telephone AgNova Technologies Pty Ltd 03 9899 8100 (office hours)

Website agnova.com.au

E-mail info@agnova.com.au

Emergency phone number IXOM ERS 1800 033 111 (24 hours)
Poisons Information Centre 13 11 26

Section 2 - Hazard(s) identification

Classification of the hazardous chemical

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Hazardous to the aquatic environment, acute hazard — Category 3

Hazardous to the aquatic environment, long-term hazard — Category 3

Label elements, including precautionary statements

Hazard symbol(s) None.

Signal word None.

Hazard statement(s) Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention Avoid release to the environment.

Response Not assigned.

Storage Not assigned.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information This is a pesticide product registered in Australia under the Australian Pesticides and Veterinary Medicines Authority (APVMA) and is subject to certain labeling requirements. These requirements may differ from the classification criteria and hazard information required for GHS compliant safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Other hazards which do not result in classification None known.

Section 3 - Composition and information on ingredients

Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Ipflufenoquin 2-{2-[(7,8-difluoro-2-methylquinolin-3-yl)oxy]-6-fluorophenyl}propan-2-ol	1314008-27-9	20%

Additives (surfactants, others) and water	N/A	80%

Section 4 - First aid measures

Description of necessary first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Skin contact Remove contaminated clothing. Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Call a poison center or doctor/physician. Do not induce vomiting without advice from poison control centre.

Personal protection for first-aid responders Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Symptoms caused by exposure Direct contact with eyes may cause temporary irritation.

Medical attention and special treatment Treat symptomatically.

Section 5 - Firefighting measures

Extinguishing media

Suitable extinguishing equipment Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing equipment None known.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed. Carbon dioxide (CO2). Carbon monoxide. Nitrogen oxides (NOx). Sulphur oxides. Hydrogen fluoride.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Use water spray to cool unopened containers.

Hazchem code None.

General fire hazards No unusual fire or explosion hazards noted.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6 - Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Wear appropriate personal protective equipment.

For emergency responders Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up Prevent product from entering drains. Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers. Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Section 7 - Handling and storage

Precautions for safe handling Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store in tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).

Section 8 - Exposure controls and personal protection

Control parameters Follow standard monitoring procedures.

Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines No exposure standards allocated.

Control banding Not available.

Engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear suitable protective clothing.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapour cartridge.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 9 - Physical and chemical properties

Physical state	Liquid.
Form	Suspension concentrate.
Colour	Off-white.
Odour	Weak, characteristic odour.
Odour threshold	Not available.
pH	7.5 (neat).
Melting point/freezing point	114.4 - 115.5 °C (237.92 - 239.9 °F)
Boiling point and boiling range	Not available.
Flash point	Not flammable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower explosive limits	
Explosion limit - lower (%)	Not available.
Explosion limit - upper (%)	Not available.
Vapour pressure	<1.00E-05 Pa at 20 °C (active ingredient).
Vapour density	Not available.
Relative density	1.06 - 1.12 (Typical: 1.09).
Relative density temperature	20 °C (68 °F)
Solubility	
Solubility (water)	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	300 - 1100 mPa·s (Typical 858 mPa·s).
Viscosity temperature	20 °C (68 °F)
Particle characteristics	Not available.
Data relevant with regard to physical hazard classes	No relevant additional information available.

Other physical and chemical parameters

Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

Section 10 - Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.

Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Oxidising agents. Strong acids and bases.
Hazardous decomposition products	No hazardous decomposition products are known.

Section 11 - Toxicological information

Information on possible routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Not a skin irritant or skin sensitiser.
Eye contact	Not an eye irritant.
Ingestion	May cause discomfort if swallowed.
Early onset symptoms related to exposure	Direct contact with eyes may cause temporary irritation.
Delayed health effects from exposure	Not available.

Acute toxicity

Product	Species	Test Results
MIGIWA® FUNGICIDE		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Inhalation		
LC50	Rat	> 1.6 mg/l
Oral		
LD50	female rat	> 2000 mg/kg

Skin corrosion/irritation	Non-irritating (rabbit).
Serious eye damage/irritation	Non-irritating (rabbit).
Respiratory or skin sensitisation	
Respiratory sensitisation	No data available.
Skin sensitisation	This product is not expected to cause skin sensitisation.

Skin Sensitisation

MIGIWA® FUNGICIDE	Buehler test Result: Negative. Species: Guinea pig

Germ cell mutagenicity	Not classified.

Mutagenicity

Ipflufenoquin	Ames test Result: Negative. Chromosomal aberration test (human lymphocyte): Result: Negative. Comet assay (rat and mouse): Result: Negative. Cytogenetic test (mouse lymphoma): Result: Negative. Micronucleus test (mouse): Result: Negative.

Carcinogenicity	Not classifiable as to carcinogenicity to humans.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	No data available.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	No data available.

Section 12 - Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Product		Species	Test Results
MIGIWA® FUNGICIDE			
Aquatic			
Acute			
Algae	EC50	Algae	> 50 mg/l, 72 hours
	NOEC	Algae	20 mg/l, 72 hours
Crustacea	EC50	Daphnia magna	> 50 mg/l, 48 hours
Fish	LC50	Rainbow trout	32.9 mg/l, 96 hours

Persistence and degradability Not rapidly biodegradable.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Ipflufenoquin 3.89 shake flask method, (25 °C).

Bioconcentration factor (BCF)

Ipflufenoquin 214

Mobility in soil No data available for this product.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

Section 13 - Disposal considerations

Disposal methods Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Residual waste Dispose of in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14 - Transport information

ADG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

Section 15 - Regulatory information

Safety, health and environmental regulations

National regulations This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals.

High Volume Industrial Chemicals (HVIC)

Not listed.

Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10, as amended)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Not listed.

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

Restricted Carcinogenic Substances

Not regulated.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16 - Any other relevant information

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