Material Safety Data Sheet

Issue N.: 1.2	Issue date: 24 May 2018	

1. Identification of the material/supplier

Product Name: **Az-WELL**^{250SC}

Chemical Group: Epoxiconazole (triazole)+ Azoxystrobin (strobilurin)
Formulation: Suspension Concentrate
Recommended use: Fungicide (Agricultural)

Supplier: ICA International Chemicals (Pty) Ltd
Address: 28 Planken Street
Plankenbrug Industrial
STELLENBOSCH · 7600 · SOUTH AFRICA
Telephone No.: +27 (0) 21 886 9812
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Emergency Tel No.: Griffon Poison Information Centre +27 82 446 8946

2. Hazard Identification

Hazard Classification: ***Warning***

Risk Phrases:	R23	Toxic by inhalation
	R40	Limited evidence of a carcinogenic effect
	R50,R53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
	R62	Possible risk of impaired fertility
	R63	Possible risk of harm to the unborn child
Safety Phrases:	S1/2	Keep locked up and out of the reach of children
	S22	Do not breathe dust
	S36/37	Wear suitable protective clothing and gloves
	S46	In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)
	S60	This material and its container must be disposed of as hazardous waste
	S61	Avoid release to the environment. Refer to special instructions/safety data sheet

3. Composition/information on ingredients

INGREDIENT(s)	CAS NO.:	Hazardous Classification for ACTIVE INGREDIENT (EU standards)	Proportion
Azoxystrobin	131860-33-8	**Cut-Offs:** Conc >=25%: T: R23 **Classification:** T; R23 N; R50-53 **Labelling:** T; N; R: 23, 50/53 S: (1/2) 22, 45, 60, 61	125 g/ℓ
Epoxiconazole	133855-98-8	**Cut-Offs:** Conc >=5%: Xn **Classification:** R40,R62,R63, N, R51/53 **Labelling:** Xn:N R: 40, 62, 63, 51/53 S2, 36/37, 46, 61	125 g/ℓ
Other ingredients, including water		Non-hazardous	To 100%

4. FIRST AID MEASURES

Show this MATERIAL SAFETY DATA SHEET to a doctor.

INHALATION: If experiencing respiratory symptoms, remove person to fresh air and keep at rest in a position comfortable for breathing. Immediately obtain medical attention.

EYES: Rinse eyes immediately with clean water for at least 15 minutes, while holding eyelids open. Remove contact lenses if present and easy to do after the first 5 minutes. Continue rinsing while holding eyelids apart. Seek medical advice if irritation continues.

SKIN: Remove contaminated clothing. Rinse affected areas (skin) as soon as possible with plenty of water/shower for 15 – 20 minutes. Wash contaminated clothing before re-use. Seek medical advice if symptoms occur.

INGESTION: If swallowed, DO NOT induces vomiting. Never give anything to an unconscious person. Rinse mouth thoroughly with water if person is alert. If vomiting does occur keep head lower than hips, keep on giving fluids. **Immediately obtain medical attention**.

5. FIRE FIGHTING MEASURES:

Extinguishing media:	SMALL FIRE: Water spray, foam, carbon dioxide, dry powder. LARGE FIRE: Foam, water fog, water spray.
Exposure Hazards:	Thermal decomposition may generate: carbon monoxide, carbon dioxide, nitrogen oxides. Exposure to decomposition products may be a hazard to health.
Precautions for fire fighters	Fire fighters should wear full protective gear, including self-contained breathing apparatus. If possible and without risk, remove intact containers from exposure to fire. If unable to do so, keep cool with spraying water unto containers. Keep unauthorised persons away from fire.

6. ACCIDENTAL RELEASE MEASURES:

SPILL OR LEAK:	Wear proper protective equipment. Avoid contact with spilled material or contaminated surfaces. Avoid breathing mist/vapour. Do not allow product from entering drains and waterways. Contain spill and absorb with earth, sand clay or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately.

7. HANDLING AND STORAGE

SAFE HANDLING:	Wear gloves and safety goggles during mixing and loading. Keep out of reach of children.
SAFE STORAGE:	Store in closed, original container in a cool, dry, well-ventilated area. Do not store in direct sunlight for prolonged periods. Always store in original container, never transfer fungicides to soft drink bottles or *ANY* other containers. Keep separate from food and animal feeding stuff.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:	TLV not established
ENGINEERING CONTROLS:	Facilities should be equipped with an eyewash facility and a safety shower.
PERSONAL PROTECTIVE EQUIPMENT:	If exposure by inhalation is likely to occur use respiratory protection. Use in well-ventilated area. In case of *insufficient ventilation*, wear suitable respiratory equipment. EYES: Safety glasses or face shield during mixing. GLOVES: Wear chemical resistant PVC gloves during mixing.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE (physical form:)		Suspension concentrate
Colour:		Off-white
Odour;		Mild chemical
pH:		7-8.2 (CIPAC MT 75.3)
Density		~1.08 g/mℓ at 21 °C
Viscosity:		~ 1360 mPa/s
Persistent Foaming		~14 mℓ after 1 minute (CIPAC MT 47.2) and 46 mℓ 1 min after 14 days storage at 54 °C
Spontaneity of dispersion:		~ 97% at initial and after 14 days at 54°C (CIPAC MT 160)
Suspensibility:		~ 97% (CIPAC MT 184) (800 mℓ /30 ℓ) and ~95 % after 14 days storage at 54 °C
Pourability:		2.5 % -initial and 2.2 % after 14 days storage at 54 °C (CIPAC Method 148.1)
Storage Stability:		Stable
Wet sieve:		<0.1 % (CIPAC MT 185)
Particle size:	D50%	2.826 µm initial and 2.965 µm after 14 days storage at 54 °C
	D90 %	5.023 µm initial and 5.258 µm after 14 days storage at 54 °C
Oxidising Property		Not oxidising
Explosivity:		Not explosive
Low temp. stability:		Visibly Stable.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable under normal conditions.
CONDITIONS TO AVOID:	Thermal decomposition may generate carbon monoxide, carbon dioxide, nitrogen oxides.
INCOMPATIBLE MATERIALS:	Avoid contact with strong basis and oxidizing agents.
HAZARDOUS REACTIONS:	Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

ANIMAL ACUTE TOXICITY DATA (ACTIVE INGREDIENTS)

ACTIVE INGREDIENT		AZOXYSTROBIN	EPOXICONAZOLE
Acute Oral:	LD_{50} (rat)	> 5000 mg/kg	> 5000 mg/kg
Acute Dermal:	LD_{50} (rat)	> 2000 mg/kg	> 2000 mg/kg
INHALATION:	LC_{50} rat	0.69 mg/ℓ	>5.3 mg/ℓ
DERMAL IRRITATION:	Rabbit (OECD 404)	Not irritating	Not irritating
SKIN SENSITISATION:	Guinea Pig (OECD 406)	Not a skin sensitizer.	Not a sensitizer
EYE IRRITATION:	Rabbit (OECD 405)	Not irritating	Not irritating

Azoxystrobin is not carcinogenic, teratogenic, genotoxic or mutagenic. Epoxiconazole is not genotoxic, no clear evidence of carginogenic or teratogenic effect

12. ECOLOGICAL INFORMATION:

Azoxystrobin is toxic to freshwater and estuarine/marine fish and aquatic invertebrates.
Keep out of lakes, streams, ponds and tidal marshes.

ECOTOXICITY: (ACTIVE INGREDIENTS)		AZOXYSTROBIN	EPOXICONAZOLE
	Birds	Acute oral: LD_{50} mg/kg - Bobwhite Quail >2000 Acute oral: LD_{50} mg/kg - Mallard duck >2000	Bobwhite quail: Acute LD_{50} > 2000 mg kg^{-1} (moderate); Short term (dietary) LC_{50} = > 907 mg/kg bw/day;
	Fish:	Acute tox LC_{50} - Rainbow trout = 0.47 mg/l Fathead minnow - NOEC = 0.147 mg/l	Rainbow trout: Acute LC_{50} (96hr) = 3.14 mg l^{-1}. Rainbow trout: Chronic NOEC (21 day) = 0.01 mg l^{-1}.
	Daphnia magna:	Chronic 21 day NOEC = 0.044 mg/l	Acute EC_{50} (48h) = 8.69 mg l^{-1}.
	Green Algae:	Effect on growth, static water 96 h E_bC_{50} = 0.36 mg/ℓ	Acute EC_{50} (72h) growth = 1.19 mg l^{-1}
	Honeybees	Acute Oral 24 hour LD_{50} - >200 µg a.i/bee Acute Contact 24 hour LD_{50} - >25 µg a.i/bee	Acute LD_{50} (48h) = > 83 (µg bee^{-1})
	Earthworms	Reproduction toxicity: 14 day LC_{50} 881 mg/kg dry soil. NOEC = 20 mg/kg (formulation).	Acute 14 day LC_{50} = > 500 mg kg^{-1}.
ECOLOGICAL FATE:	Persistence / Degradability	Azoxystrobin can persist for several months or longer. The US EPA concluded that the a.i. have properties similar to chemicals which are known to leach through soil to ground water under certain conditions.	In soil, epoxiconazole exhibits medium to very high persistence. It is quite stable at soil surface of the soil photolysis study and no metabolites appeared in amounts greater than 1% of the applied radioactivity. Epoxiconazole is slightly too moderately absorbed to soil and the leaching potential is low; it is not readily biodegradable.

13. DISPOSAL CONSIDERATIONS:

Do not use containers or packaging material for storing water or food. Triple or preferable pressure rinse empty containers with clean water before disposal. Add rinsing to spray/mixing tank. Do not dispose of undiluted chemical on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. IF NOT recycling, break crush or puncture and bury empty containers in a local authority landfill. If no landfill is available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of any water source (river, dam, spring, or borehole). Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION:

UN NUMBER:	3082
PROPER SHIPPING NAME:	Environmentally hazardous substance, liquid, n.o.s. (contain azoxystrobin and epoxiconazole)
CLASS AND SUBSIDIARY RISK(S):	Class 9
PACKING GROUP:	III (minor danger)
HAZCHEM CODE:	None allocated

15. REGULATORY INFORMATION:

WHO Classification:	Azoxystrobin "U, unlikely to present hazard in normal use" (WHO 2002) Epoxiconazole Unlisted
EU Hazard Classification	(T, toxic); R50/53 very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment Xn Harmful R40, R62 R63; Limited evidence of a carcinogenic effect Possible risk of impaired fertility Possible risk of harm to the unborn child
US EPA Signal Word for technical product:	No consensus

16. OTHER INFORMATION

The information contained in this document was obtained from sources which are believed to be reliable and also available in the public domain. This MSDS summarises to our best knowledge the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used to prevent accidents in the normal workplace including in conjunction with other products. However, the information is provided without warranty because the correct and safe handling of this product is beyond our control. Care for the environment is essential for our future.

Abbreviations and Acronyms:

WHO:	World Health Organization
CAS Number:	Chemical Abstract Service Registry Number
NOHSC:	National Occupational Health and Safety Commission
EU	European Union

This MSDS is valid for three years from date of issue

END of MSDS