



SAFETY DATA SHEET

Almagor 360 EC

Revision Date 31-Jul-2016

Version 1

Product No LSMF00023-27

Publish Date 31-Jul-2016

R-26320 MCW 1086

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Almagor 360 EC

Synonyms

Azoxystrobin 56 Tebuconazole 100 Prochloraz 200 EC

Pure substance/mixture

Mixture

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use

Fungicide

Uses advised against

No information available

Details of the supplier of the safety data sheet

Supplier Address

ADAMA SOUTH AFRICA (PTY) LTD
21 Viben Street
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For further information, please contact

Email address

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Emergency Telephone

Emergency Telephone

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Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Aspiration toxicity	Category 1 - (H304)
Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitization	Category 1 - (H317)
Reproductive toxicity	Category 2 - (H361)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

Label Elements

Hazard pictograms

**Signal word**

Danger

Hazard Statements

H302 - Harmful if swallowed
 H304 - May be fatal if swallowed and enters airways
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H361 - Suspected of damaging fertility or the unborn child
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
 P201 - Obtain special instructions before use
 P270 - Do not eat, drink or smoke when using this product
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P331 - Do NOT induce vomiting
 P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	Weight-%	CAS No
Azoxystrobin	4-6	131860-33-8
Tebuconazole	7-11	107534-96-3
Prochloraz	16-20	67747-09-5
Acetophenone	31-35	98-86-2
Propanoic acid, 2-hydroxy-, 2-ethylhexyl ester	11-14	186817-80-1
calcium dodecylbenzenesulphonate	4-6	26264-06-2
2,4,6-Tris(1-phenylethyl)polyoxyethylenated phosphates	2-4	90093-37-1
2-Ethylhexan-1-ol	2-4	104-76-7

Section 4: FIRST AID MEASURES

First aid measures**General advice**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!

Inhalation

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

Self-protection of the first aider Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms None known

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Special hazards arising from the substance or mixture

No specific hazard known.

Advice for firefighters

In the event of fire, wear self-contained breathing apparatus

In the event of fire and/or explosion do not breathe fumes.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place.

Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Acetophenone 98-86-2				TWA: 10 ppm TWA: 50 mg/m ³	
2-Ethylhexan-1-ol 104-76-7					TWA: 10 ppm TWA: 54 mg/m ³ Ceiling / Peak: 10 ppm Ceiling / Peak: 54 mg/m ³ TWA: 20 ppm TWA: 110 mg/m ³
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Acetophenone 98-86-2		TWA: 10 ppm		TWA: 5 ppm TWA: 25 mg/m ³	TWA: 10 ppm TWA: 49 mg/m ³
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Acetophenone 98-86-2			STEL: 100 mg/m ³ TWA: 50 mg/m ³		TWA: 10 ppm TWA: 49 mg/m ³
2-Ethylhexan-1-ol 104-76-7	Skin STEL 100 ppm STEL 540 mg/m ³ TWA: 50 ppm TWA: 270 mg/m ³	STEL: 20 ppm STEL: 110 mg/m ³ TWA: 20 ppm TWA: 110 mg/m ³	STEL: 320 mg/m ³ TWA: 160 mg/m ³		

Exposure controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Body Protection

Suitable protective clothing.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

<u>Property</u>	<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance				
	Physical state	: liquid		
	Color	: Yellowish		
	Odor	: characteristic		
	Odor threshold	: No data available		
	pH	: 5 - 9		solution (1 %)
	Melting point/freezing point °C	: No data available		
	Boiling point/boiling range °C	: No data available		
	Flash point °C	: 92		
	Evaporation rate	: Not Applicable		
	Flammability (solid, gas)	: Not Applicable		
	Upper/lower flammability or explosive limits	: No data available		
	Vapor pressure kPa	: No data available		
	Vapor density	: No data available		
	Relative density	: 1.08 - 1.12		
	Solubility(ies) mg/l	: No data available		
	Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
	Autoignition temperature °C	: No data available		
	Decomposition temperature °C	: No data available		
	Kinematic viscosity mm²/s 40 °C	: Not Applicable		
	Explosive properties	: Not an explosive		
	Oxidizing properties	: No data available		
<u>Other Information</u>				
	Bulk density g/ml	:		
	Surface tension mN/m	: Not Applicable		

Section 10: STABILITY AND REACTIVITY**Reactivity**

Not available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible Materials

No information available

Hazardous Decomposition Products

None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION

Information on toxicological effects**Acute toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	:			No data available
Dermal LD50 mg/kg	:			No data available
Inhalation LC50 mg/l/4h	:			No data available
Skin corrosion/irritation	:			No data available
Serious eye damage/eye irritation	:			No data available
Respiratory/skin sensitization	:			No data available

Chronic toxicity**Germ cell mutagenicity**

<u>Chemical Name</u>	
Azoxystrobin	: Not classified
Tebuconazole	: Not classified
Prochloraz	: Not classified

Carcinogenicity

<u>Chemical Name</u>	
Azoxystrobin	: Not Carcinogenic
Tebuconazole	: Not classified
Prochloraz	: Not classified

Reproductive toxicity

<u>Chemical Name</u>	
Azoxystrobin	: Not toxic for the reproductive system
Tebuconazole	: H361d - Suspected of damaging the unborn child
Prochloraz	: Not classified

STOT - single exposure

<u>Chemical Name</u>	
Azoxystrobin	: No data available
Tebuconazole	: No information available
Prochloraz	: No data available

STOT - repeated exposure

<u>Chemical Name</u>	
Azoxystrobin	: No data available
Tebuconazole	: No information available
Prochloraz	: No data available

Aspiration hazard

<u>Chemical Name</u>	
Azoxystrobin	: No data available
Tebuconazole	: No information available
Prochloraz	: No data available

Section 12: ECOLOGICAL INFORMATIONToxicity**Aquatic toxicity**

<u>Acute toxicity</u>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	:			No data available
Crustacea 48-hour EC50 mg/l	:			No data available
Algae 72-hour EC50 mg/l	:			No data available
Other plants EC50 mg/l	:			No data available

Terrestrial Toxicity**Birds Oral LD50 mg/kg****Chemical Name**

Azoxystrobin	: >2000	Bobwhite quail	
Tebuconazole	: 1988	Bobwhite quail	
Prochloraz	: 624	Bobwhite quail	US EPA 71-1

Bees Oral LD50 µg/bee**Chemical Name**

Azoxystrobin	: >25		
Tebuconazole	: 83.05		Oral
Prochloraz	: 684		

Persistence and degradability**Abiotic Degradation****Water DT50 days****Chemical Name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Azoxystrobin	: 205		pH 6.4-7.5 ;20 ° C
Tebuconazole	: 365		
Prochloraz	: 11.7		

Soil DT50 days**Chemical Name**

Azoxystrobin	: 262		20 °C
Tebuconazole	: 34.8		
Prochloraz	: 223.62		

Biodegradation**Chemical Name**

Tebuconazole	: Not readily biodegradable	OECD 301B	
Prochloraz	: Not readily biodegradable	OECD 301 D	

Bioaccumulative potential**Partition Coefficient****(n-octanol/water) Partition****Coefficient (n-octanol/water) Log****Pow****Chemical Name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Azoxystrobin	: 2.7	OECD 107	pH 5; 20 ° C
Tebuconazole	: 3.7		
Prochloraz	: 4.3	EEC A.8	20-25 ° C

Bioconcentration factor (BCF)**Chemical Name**

Azoxystrobin	:		No data available
Tebuconazole	: 78		
Prochloraz	: 150-247		

Mobility in soil**Adsorption/Desorption****Chemical Name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Azoxystrobin	: 2.5		Koc
Tebuconazole	: 769		Koc
Prochloraz	: 1222-8654		Koc

Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Improper disposal or reuse of this container may be dangerous and illegal.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORTATION INFORMATION

IMDG/IMO

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Azoxystrobin Tebuconazole Prochloraz)
Hazard Class	9
Packing Group	III
Marine pollutant	Yes
Special precautions for user	

RID/ADR

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Azoxystrobin Tebuconazole Prochloraz)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special precautions for user	

ICAO/IATA

UN/ID No *	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Azoxystrobin Tebuconazole Prochloraz)
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special precautions for user	
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Applicable



* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

Section 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Section 16: OTHER INFORMATION

Revision Note Changes made to the last version are labeled with this sign ***.

List of Acronyms

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS Number - Chemical Abstracts Service number
EC Number - EINECS and ELINCS Number
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic substance
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT - Specific Target Organ Toxicity
vPvB - Very Persistent and Very Bioaccumulative

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet