

SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) Annex II

Chronos 450 SC

Revision Date 10-Jun-2014

Version 1

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R-10804.DPD MCW-9101

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

1.1. Product identifier

Chronos 450 SC

Synonyms

Prochloraz-Zinc 450 SC

Pure substance/mixture

Mixture

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

Recommended Use

Fungicide

Uses advised against

No information available

1.3. Details of the supplier of the safety data sheet

Supplier Address

ADAMA SOUTH AFRICA (PTY) LTD
21 Viben Street
Brankenfell
7560

For further information, please contact

Email address

msds@mcw.co.il

1.4. Emergency telephone number

Emergency Telephone

+ 27 82 331 6463
+ 27 21 982 1460

Section 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification of the product is based on the coformulants listed in section 3

N;R50-53

Full text of R-phrases: see section 16

2.2. Label elements

The product is classified and labeled in accordance with Directive 1999/45/EC



Hazard symbols

N - Dangerous for the environment

R-Phrases

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S phrases S2 - Keep out of the reach of children
S60 - This material and its container must be disposed of as hazardous waste

Contains polydimethylsiloxanes. May produce an allergic reaction

2.3. Other hazards Other Information

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Name	Weight-%	CAS No	EC No	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Classification according to 67/548/EEC	REACH Registration Number
Prochloraz-Zinc complex	36 - 40	137001-93-5	-	-	Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Xi; R36 N; R50-53	-
sodium 2-[methyloleoylamino]ethane-1-sulphonate	1 - 2	137-20-2	-	-	Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	Xi; R38 Xi; R41	-
polydimethylsiloxanes	0.1 - 0.5	N/A	-	-	Skin Sens. 1 (H317)	R43	-

Full text of R-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of 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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms None known

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

No information available.

5.2. Special hazards arising from the substance or mixture

No specific hazard known.

5.3. 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

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

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

For emergency responders

Use personal protection recommended in Section 8.

6.2. 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.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

Use personal protective equipment as required. Use only with adequate ventilation. Use with local exhaust ventilation. 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. Regular cleaning of equipment, work area and clothing is recommended.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

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

7.3. 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**8.1. Control parameters**

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available.

8.2. 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, Apron, Gloves made of plastic or rubber.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

Environmental exposure controls

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

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance			
Physical state	: liquid		
Color	: white		
Odor	: none		
Odor threshold	: No data available		
pH	: 6 - 7	CIPAC MT 75.2	solution (1 %)
Melting point/freezing point °C	: No data available		
Boiling point/boiling range °C	: No data available		
Flash point °C	: No data available		Not flammable
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	: 1.19 - 1.21	CIPAC MT 3.3.2	20 °C
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	: <74	CIPAC MT 114	20 °C
Explosive properties	: Not an explosive		

Oxidizing properties : No data available

9.2. Other information

Bulk density g/ml :
Surface tension mN/m : 44 OECD 115 solution (1 %) 20-25 ° C
Minimum ignition energy (MIE) mJ :

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

No information available

10.6. Hazardous decomposition products

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: >2000	Rat	OECD 401	
Dermal LD50 mg/kg	: >2000	Rat	OECD 402	
Inhalation LC50 mg/l/4h	: >4.99	Rat	OECD 403	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: May cause slight irritation	Rabbit	OECD 405	
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

Chronic toxicity

Germ cell mutagenicity

Chemical Name
 Prochloraz-Zinc complex : Not classified

Carcinogenicity

Chemical Name
 Prochloraz-Zinc complex : Not Carcinogenic

Reproductive toxicity

Chemical Name
 Prochloraz-Zinc complex : Not toxic for the reproductive system

STOT - single exposure

Chemical Name

Prochloraz-Zinc complex : No data available

STOT - repeated exposure**Chemical Name**

Prochloraz-Zinc complex : No data available

Aspiration hazard**Chemical Name**

Prochloraz-Zinc complex : No data available

Section 12: ECOLOGICAL INFORMATION
12.1. Toxicity**Acute toxicity**

Aquatic toxicity	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	:			Not available
Crustacea 48-hour EC50 mg/l	:			Not available
Algae 72-hour EC50 mg/l	:			Not available
Other plants EC50 mg/l	:			Not available

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

Prochloraz-Zinc complex : 1440 Bobwhite quail EPA-OPPTS 850.2100

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

Prochloraz-Zinc complex : 121.53 OECD 213

12.2. Persistence and degradability

Abiotic Degradation	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Water DT50 days			
Chemical Name			
Prochloraz-Zinc complex	: 11.7		

Soil DT50 days**Chemical Name**

Prochloraz-Zinc complex : 223.62 20 °C

Biodegradation**Chemical Name**

Prochloraz-Zinc complex : Not readily biodegradable OECD 301 F

12.3. Bioaccumulative potential

Partition Coefficient (n-octanol/water) Log Pow	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical Name			
Prochloraz-Zinc complex	: 3.5	OECD 117	

Bioconcentration factor (BCF)**Chemical Name**

Prochloraz-Zinc complex : 150 - 247

12.4. Mobility in soil

Adsorption/Desorption	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Chemical Name			
Prochloraz-Zinc complex	: 1222 - 8654		Koc

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. 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

14.1 UN/ID No	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prochloraz-Zn)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Marine pollutant	Yes
14.6 Special precautions for user	

RID/ADR

14.1 UN/ID No	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prochloraz-Zn)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	

ICAO/IATA

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



Section 15: REGULATORY INFORMATION

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

15.2. Chemical safety assessment

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.

Section 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R36 - Irritating to eyes

R38 - Irritating to skin

R41 - Risk of serious damage to eyes

R43 - May cause sensitization by skin contact

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Revision Date 10-Jun-2014

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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