



SAFETY DATA SHEET

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

Cirkon

Revision Date 29-Jul-2014

Version 1.01

Product No FNG56801-44

Publish Date 29-Jul-2014

R-8361-BUTNW MCW 309 P

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

1.1. Product identifier

Cirkon

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 Agricultural Solutions UK Ltd Unit 15, Thatcham Buisness Village Colthrop Way, Thatcham Berkshire RG19 4LW, UK : 01635 860555 Fax: 01635 861555
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For further information, please contact

Email address	ukenquiries@adama.com
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1.4. Emergency telephone number

Emergency Telephone	National Chemical Emergency Centre (UK): Tel: 01865 407333 (24 hours)
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Section 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation Category 2 - (H319)

Hazardous to the Aquatic Environment - Chronic Hazard Category 2 - (H411)

Environment - Chronic Hazard

Classification according to Directive 67/548/EEC or 1999/45/EC

Full text of R-phrases: see section 16

Xi;R36 - N;R51-53

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Signal word

Warning

Hazard Statements

H319 - Causes serious eye irritation
 H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P501 - Dispose of contents/ container to an approved waste disposal plant

EU Specific Hazard Statements

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Additional phrases for PPP

EUH208 - Contains Propiconazole. May produce an allergic reaction
 SP1 - Do not contaminate water with the product or its container

2.3. Other hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight-%	CAS No	EC No	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Classification according to 67/548/EEC	M-Factor	REACH Registration Number
Prochloraz	33-36	67747-09-5	266-994-5	613-128-00-2	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Xn; R22 N; R50-53	M=1 M=10	-
Propiconazole	6-9	60207-90-1	262-104-4	613-205-00-0	Acute Tox. 4 (H302) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Xn; R22 R43 N; R50-53		-
Butyrolactone	6-8	96-48-0	202-509-5	-	STOT SE 3 (H336) Eye Dam. 1 (H318) Acute Tox. 4 (H302)	Xn; R22-41 R67		01-21194718 39-21-0000
butan-1-ol	2-4	71-36-3	200-751-6	603-004-00-6	Flam Liq. 3 (H226) Acute Tox. 4 (H302) STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT SE 3 (H336)	R10 Xn; R22 Xi; R37/38-41 R67		01-21194846 30-38-XXXX
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	0.7-1.2	N/A	-	-	Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	Xi; R41, R38		01-21195605 92-37

Full text of R-phrases: see section 16

Full text of H- and EUH-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

Chemical Name	European Union	United Kingdom	France	Spain	Germany
Butyrolactone 96-48-0					Skin
butan-1-ol 71-36-3		STEL: 50 ppm STEL: 154 mg/m ³ Skin	STEL: 50 ppm STEL: 150 mg/m ³	S* STEL: 50 ppm STEL: 154 mg/m ³	TWA: 100 ppm TWA: 310 mg/m ³ Ceiling / Peak: 100 ppm Ceiling / Peak: 310 mg/m ³
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Butyrolactone 96-48-0				TWA: 50 ppm TWA: 14 mg/m ³ STEL: 250 ppm STEL: 70 mg/m ³ Skin	
butan-1-ol 71-36-3		TWA: 20 ppm		TWA: 50 ppm TWA: 150 mg/m ³ STEL: 75 ppm STEL: 230 mg/m ³ Skin	Ceiling: 50 ppm Ceiling: 150 mg/m ³ Skin
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland

butan-1-ol 71-36-3	STEL 200 ppm STEL 600 mg/m ³ TWA: 50 ppm TWA: 150 mg/m ³	STEL: 50 ppm STEL: 150 mg/m ³ TWA: 50 ppm TWA: 150 mg/m ³	STEL: 150 mg/m ³ TWA: 50 mg/m ³ Skin	Skin Ceiling: 25 ppm Ceiling: 75 mg/m ³	TWA: 20 ppm STEL: 25 ppm STEL: 75 mg/m ³ Skin
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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	: clear, light brown		
Odor	: Organic		
Odor threshold	: No data available		
pH	: 6.50-7.50	CIPAC MT 75	1 %, 24 °C
Melting point/freezing point °C	: No data available		
Boiling point/boiling range °C	: No data available		
Flash point °C	: 76	EEC A.9	
Evaporation rate	: Not Applicable		
Flammability (solid, gas)	: Not applicable for liquids		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: No data available		
Vapor density	: No data available		
Relative density	: 1.10-1.20	EEC A.3	
Solubility(ies) mg/l	: No data available		
Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
Autoignition temperature °C	: >300	EEC A.15; DIN 51794	Not Determined
Decomposition temperature °C	: No data available		
Kinematic viscosity mm²/s 40 °C	: 249	OECD 114	
Explosive properties	: Not an explosive		
Oxidizing properties	: No data available		

9.2. Other information

Bulk density g/ml	:	
Surface tension mN/m	: 38.9	EEC A.5
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	: 3535	Rat	OECD 401	
Dermal LD50 mg/kg	: >2000	Rat	OECD 402	
Inhalation LC50 mg/l/4h	: >7.92	Rat	OECD 403	Maximum attainable concentration
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Irritating to eyes	Rabbit	OECD 405	
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

Chronic toxicity

Germ cell mutagenicity

Chemical Name

Prochloraz	: Not classified
Propiconazole	: Not classified

Carcinogenicity

Chemical Name

Prochloraz	: Not classified
Propiconazole	: Not classified

Reproductive toxicity

Chemical Name

Prochloraz	: Not classified
Propiconazole	: Not classified

STOT - single exposure

Chemical Name

Prochloraz	: No data available
Propiconazole	: No data available

STOT - repeated exposure

Chemical Name

Prochloraz	: No data available
Propiconazole	: No data available

Aspiration hazard**Chemical Name**

Prochloraz : No data available
 Propiconazole : 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	: 4.2	Rainbow trout	OECD 203	semi-static
Crustacea 48-hour EC50 mg/l	: 11	Daphnia magna	OECD 202	Static
Algae 72-hour EC50 mg/l	: 2.2	Selenastrum capricornutum	OECD 201	Static,
Other plants EC50 mg/l	:			Not available

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

Prochloraz	: 624	Bobwhite quail	US EPA 71-1
Propiconazole	: >2510	Mallard duck, Bobwhite quail	

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

Prochloraz	: 684
Propiconazole	: >100

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

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Prochloraz	: 11.7		
Propiconazole	: 5.4		

Soil DT50 days**Chemical Name**

Prochloraz	: 223.62
Propiconazole	: 29-70

Biodegradation**Chemical Name**

Prochloraz	: Not readily biodegradable	OECD 301 D
Propiconazole	: Not readily biodegradable	

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

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Prochloraz	: 4.3	EEC A.8	20-25 ° C
Propiconazole	: 3.72		25° C

Bioconcentration factor (BCF)**Chemical Name**

Prochloraz	: 150-247
Propiconazole	: 116

12.4. Mobility in soil

Adsorption/Desorption Chemical Name	Values	Method	Remarks
Prochloraz	: 1222-8654		Koc
Propiconazole	: 382-1789		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. (Propiconazole, Prochloraz)
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. (Propiconazole, Prochloraz)
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. (Propiconazole, Prochloraz)
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

R22 - Harmful if swallowed
R43 - May cause sensitization by skin contact
R67 - Vapors may cause drowsiness and dizziness
R41 - Risk of serious damage to eyes
R10 - Flammable
R36 - Irritating to eyes
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R37/38 - Irritating to respiratory system and skin

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed
H317 - May cause an allergic skin reaction
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H226 - Flammable liquid and vapor
H335 - May cause respiratory irritation
H315 - Causes skin irritation
H318 - Causes serious eye damage
H336 - May cause drowsiness or dizziness

Revision Note

*** - Change from previous version.

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