



SAFETY DATA SHEET

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

Manitoba

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

1.1. Product identifier

Manitoba

Synonyms

Epoxiconazole Folpet 50 375 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 Agricultural Solutions UK Ltd
Unit 15, Thatcham Buisness Village Colthrop Way,
Thatcham Berkshire RG19 4LW, UK : 01635 860555
Fax: 01635 861555

For further information, please contact

Email address

ukenquiries@adama.com

1.4. Emergency telephone number

Emergency Telephone

National Chemical Emergency Centre (UK):
Tel: 01865 407333 (24 hours)

Section 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

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

Acute toxicity - Inhalation

Category 4 - (H332)

(Dusts/Mists)

Serious eye damage/eye irritation

Category 2 - (H319)

Carcinogenicity

Category 2 - (H351)

Reproductive Toxicity

Category 1B - (H360Df)

Acute aquatic toxicity

Category 1 - (H400)

Hazardous to the Aquatic

Category 3 - (H412)

Environment - Chronic Hazard

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

Full text of R-phrases: see section 16

Carc. cat. 3;R40 - Repr. cat. 2;R61 - Xn;R20 - N;R50

2.2. Label elements

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

Hazard pictograms



Signal word

Danger

Hazard Statements

H319 - Causes serious eye irritation
 H332 - Harmful if inhaled
 H351 - Suspected of causing cancer
 H360Df - May damage the unborn child. Suspected of damaging fertility
 H400 - Very toxic to aquatic life
 H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
 P201 - Obtain special instructions before use
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 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

EUH208 - Contains Folpet, Methenamine. May produce an allergic reaction
 EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Additional phrases for PPP

SP1 - Do not contaminate water with the product or its container

2.3. Other hazards

No information available

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	M-Factor	REACH Registration Number
Folpet	31-34	133-07-3	205-088-6	613-045-00-1	Acute Tox. 4 (H332) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Carc. 2 (H351) Aquatic Acute 1 (H400)	Xn; R20 Xi; R36 R43 Carc.Cat.3; R40 N; R50	M=10	-

Epoxiconazole (ISO)	3-5	133855-98-8	-	613-175-00-9	Carc. 2 (H351) Repr. 1B (H360Df) Aquatic Chronic 2 (H411)	Carc. Cat.3; R40 Repr. Cat. 2; R61 Repr. Cat. 3; R62 N; R51-53		-
Poly(oxy-1,2-ethanediy l), .alpha.-sulfo-.omega.-[tris(1- phenylethyl)phenoxy -, ammonium salt	1-2	119432-41-6	-	-	Aquatic Chronic 3 (H412)	R52-53		-
methenamine	0.5-0.9	100-97-0	202-905-8	612-101-00-2	Flam. Sol. 2 (H228) Skin Sens. 1 (H317)	F; R11 R43		-

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	Do NOT induce vomiting. 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

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.

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

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. Use with local exhaust ventilation.

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 in a dry and well-ventilated place. 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	Austria	Switzerland	Poland	Norway	Ireland
methenamine 100-97-0			TWA: 4 mg/m ³	TWA: 3 mg/m ³ STEL: 6 mg/m ³	

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, Suitable protective clothing, Apron, Gloves made of plastic or rubber, Rubber boots, Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

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	: opaque white		
Odor	: Organic		
Odor threshold	: No data available		
pH	: 5.7-6.7	CIPAC MT 75.3	solution (1 %)
Melting point/freezing point °C	: ----		No data available
Boiling point/boiling range °C	: No data available		
Flash point °C	: > 79	CIPAC MT 12.2	
Evaporation rate	: ----		No data available
Flammability (solid, gas)	: Not applicable for liquids		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: ----		Not Applicable
Vapor density	: No data available		
Relative density	: 1.2-1.3	CIPAC MT 3.3.2	
Solubility(ies) mg/l	: ----		Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	: ----		See Section 12 for more information
Autoignition temperature °C	: > 400	EEC A.15	
Decomposition temperature °C	: No data available		
Kinematic viscosity mm²/s 40 °C	: 61-735	OECD 114	
Explosive properties	: Not an explosive		
Oxidizing properties	: Not oxidizing		

9.2. Other information

Bulk density g/ml	: ----	Not Applicable
Surface tension mN/m	: 24.2	
Minimum ignition energy (MIE) mJ	: ----	No data available

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 423	
Dermal LD50 mg/kg	: >2000	Rat	OECD 423	
Inhalation LC50 mg/l/4h	: 1.18-1.83	Rat	OECD 403	
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, (M&K test)	

Chronic toxicity

Germ cell mutagenicity

Chemical Name

Folpet : Not classified
 Epoxiconazole (ISO) : Not classified

Carcinogenicity

Chemical Name

Folpet : Suspected of causing cancer
 Epoxiconazole (ISO) : Suspected of causing cancer

Reproductive toxicity .

Chemical Name

Folpet : Not toxic for the reproductive system
 Epoxiconazole (ISO) : H360Df - May damage the unborn child. Suspected of damaging fertility

STOT - single exposure

Chemical Name

Folpet : No data available
 Epoxiconazole (ISO) : No data available

STOT - repeated exposure**Chemical Name**

Folpet : No data available
 Epoxiconazole (ISO) : No data available

Aspiration hazard**Chemical Name**

Folpet : No data available
 Epoxiconazole (ISO) : No data available

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

Aquatic toxicity	Values	Species	Method	Remarks
Fish 96-hour LC50 mg/l	: 0.354	Rainbow trout	OECD 203	Static
Crustacea 48-hour EC50 mg/l	: 3.530	Daphnia magna	OECD 202	Static
Algae 72-hour EC50 mg/l	: 0.0375	D. Subspicatus	OECD 201	
Other plants EC50 mg/l	: ---			No data available

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

Folpet : >2510 Bobwhite quail EPA 71-1
 Epoxiconazole (ISO) : > 2000 Bobwhite quail US EPA 71-1

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

Folpet : >236 EPPO 170 (1992)
 Epoxiconazole (ISO) : > 1286

12.2. Persistence and degradability

Abiotic Degradation	Values	Method	Remarks
Water DT50 days			
Chemical Name			
Folpet	: <0.05	OECD 111	pH 7
Epoxiconazole (ISO)	: 38 - 93	OECD 308	

Soil DT50 days**Chemical Name**

Folpet : 4.3 SETAC 25° C
 Epoxiconazole (ISO) : 74 Field

Biodegradation**Chemical Name**

Folpet : Readily biodegradable OECD 301 B
 Epoxiconazole (ISO) : No data available

12.3. Bioaccumulative potential

Partition Coefficient	Values	Method	Remarks
(n-octanol/water) Log Pow			
Chemical Name			
Folpet	: 3.017		20 ° C
Epoxiconazole (ISO)	: 3.3	OECD 117	25° C

Bioconcentration factor (BCF)**Chemical Name**

Folpet	: 56	OECD 305E	
Epoxiconazole (ISO)	: 70		Low bioaccumulation potential

12.4. Mobility in soil

Adsorption/Desorption Chemical Name	Values	Method	Remarks
Folpet	: 304		Koc
Epoxiconazole (ISO)	: 280	OECD 106	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. (Epoxiconazole, Folpet)
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. (Epoxiconazole, Folpet)
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. (Epoxiconazole, Folpet)
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

R11 - Highly flammable
R20 - Harmful by inhalation
R36 - Irritating to eyes
R40 - Limited evidence of a carcinogenic effect
R43 - May cause sensitization by skin contact
R50 - Very toxic to aquatic organisms
R61 - May cause harm to the unborn child
R62 - Possible risk of impaired fertility
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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

H228 - Flammable solid
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H351 - Suspected of causing cancer if inhaled
H360Df - May damage the unborn child. Suspected of damaging fertility
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects

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