



SAFETY DATA SHEET

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

Avastel

Revision date 18-Dec-2024

Version 3 Supersedes Date: 18-Dec-2024

Product Code(s)

FNG56983-44

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Avastel

Other means of identification

Pure substance/mixture

Mixture

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

Recommended use

Fungicide, Professional use

Uses advised against

No information available

1.3. Details of the supplier of the safety data sheet

Supplier

ADAMA Agricultural Solutions UK Ltd

Third Floor East

1410 Arlington Business Park

Theale

READING

RG7 4SA

Tel: 01635 860555

Fax: 01635 861555

For further information, please contact

E-mail address

ukenquiries@adama.com

1.4. Emergency telephone number

Emergency Telephone

Republic of Ireland: National Poisons Information Centre, Beaumont Hospital:

Tel: 01 809 2166 or 01 837 9964 (8am - 10pm 7 days a week) or

the UK National Chemical Emergency Centre on

Tel: +44 (0)1865 407333 (24 hours, 7 days a week)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation	Category 1 - (H318)
Effects on or via lactation	Lact - (H362)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Contains Fluxapyroxad , 1-Octyl-2-pyrrolidinone, Alcohols, C11-14-iso-, C13-rich, ethoxylated (7-15 EO)

Hazard pictograms**Signal word**

Danger

Hazard statements

H318 - Causes serious eye damage
 H362 - May cause harm to breast-fed children
 H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
 P201 - Obtain special instructions before use
 P263 - Avoid contact during pregnancy and while nursing
 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
 P410 - Protect from sunlight
 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

SP1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards**PBT & vPvB**

The product does not contain any substance(s) classified as PBT or vPvB.

Endocrine Disruptor Information

None known.

Persistent Organic Pollutants

Not applicable.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

Chemical name	CAS No	EC No	Index No	Weight-%	Classification according to Regulation (EC) No. 1272/2008	Specific concentration limit (SCL)	M-Factor	REACH Registration Number

					[CLP]			
Acetophenone	98-86-2	202-708-7	606-042-00-1	35 - 39	Acute Tox. 4 (H302) Eye Irrit. 2 (H319)			01-211953316 9-37-0002
1-Octyl-2-pyrrolidinone	2687-94-7	403-700-8	613-098-00-0	15 - 19	Skin Corr. 1B (H314) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)			01-000001533 5-74-0000
Prothioconazole	178928-70-6	605-841-2	613-337-00-9	13 - 16	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		M = 10 M = 1	No data available
Alcohols, C11-14-iso-, C13-rich, ethoxylated (7-15 EO)	78330-21-9	-		10 - 13	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)			No data available
Poly(oxy-1,2-ethanediyl), .alpha.-[tris(1-phenylethyl)phenyl]-.omega.-hydroxy-	99734-09-5	-		8 - 11	Aquatic Chronic 3 (H412)			No data available
Fluxapyroxad	907204-31-3	-	616-228-00-4	6 - 9	Lact. (H362) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		M=1 M=1	No data available
Tristyrylphenol ethoxylate phosphate ester	114535-82-9	-		1 - 4	Eye Irrit. 2 (H319)			No data available
orthophosphoric acid	7664-38-2	231-633-2	015-011-00-6	< 1	Acute Tox. 4 (H302) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Met. Corr. 1 (H290)	Eye Irrit. 2 :: 10%<=C<25% Skin Corr. 1B :: C>=25% Skin Irrit. 2 :: 10%<=C<25%		No data available

Acute toxicity estimates (ATEs) according to Part 3 of Annex VI to Regulation (EC) No 1272/2008 are indicated in this table, if available

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 if you feel unwell, seek medical advice immediately (show the label where possible). First aider: Pay attention to self-protection.

Inhalation

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

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. Get medical

	attention immediately if symptoms occur.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a doctor if necessary.
Ingestion	Rinse mouth. Drink plenty of water. If symptoms persist, call a doctor.
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.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
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5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	No information available.
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5.3. Advice for firefighters

Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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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.
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Other information	Refer to protective measures listed in Sections 7 and 8.
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For emergency responders	Use personal protection recommended in Section 8.
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6.2. Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
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6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
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Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
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Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
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6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

Chemical name	European Union	Ireland
Acetophenone 98-86-2		TWA: 10 ppm TWA: 49 mg/m ³ STEL: 30 ppm STEL: 147 mg/m ³
orthophosphoric acid 7664-38-2	TWA: 1 mg/m ³ STEL: 2 mg/m ³	TWA: 1 mg/m ³ STEL: 2 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.

Hand protection

Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

Skin and body protection

Use suitable protective clothing and equipment if required, such as safety goggles certified to EN 166, gloves certified to EN 374, protective boots certified to EN 13832, and/or a water repellent woven coverall with 65% polyester and 35 % cotton.

Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
General hygiene considerations	Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.
Environmental exposure controls	Local authorities should be advised if significant spillages cannot be contained.

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		
Colour	: light yellow to light brown		
Odour	: No information available		
Odour threshold	: No data available		
pH	: 2 - 3	CIPAC MT 75.3	
Melting point / freezing point °C	: No data available		
Boiling point / boiling range °C	: No data available		
Flash point °C	: 92.5	EC A.9; ISO 2719:2002 E	
Evaporation rate	: No data available		
Flammability (solid, gas)	: Not applicable		
Upper/lower flammability or explosive limits	: No data available		
Vapour pressure kPa	: No data available		
Vapour density	: No data available		
Relative density	: 1.03 - 1.13	OECD 109; EEC A.3	
Solubility(ies) mg/l	: No data available		
Partition coefficient Log Pow	:		See Section 12 for additional Ecological Information
Autoignition temperature °C	: 420	EC A.15	
Decomposition temperature °C	: No data available		
Kinematic viscosity mm ² /s 40 °C	: 11.5	OPPTS 830.7100	
Surface tension	: 36.29	OECD 115; EC A.5	
Particle Size	: Not applicable		

9.2. Other information

Bulk density g/ml : Not applicable

9.2.1. Information with regards to physical hazard classes

Explosive properties : Not an explosive
Oxidising properties : Not oxidizing

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions**Possibility of hazardous reactions** None under normal processing.**10.4. Conditions to avoid****Conditions to avoid** None known based on information supplied.**10.5. Incompatible materials****Incompatible materials** None known based on information supplied.**10.6. Hazardous decomposition products****Hazardous decomposition products** None known based on information supplied.**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****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 402	
Inhalation LC50 mg/l	: >5.28	Rat	OECD 436	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Severely irritating to eyes	Rabbit	OECD 405	
Sensitisation	: Not a skin sensitiser	Mouse	OECD 429	

Chronic toxicity**Germ cell mutagenicity****Chemical name**

Prothioconazole : Not classified

Fluxapyroxad : Not classified

Carcinogenicity**Chemical name**

Prothioconazole : Not Carcinogenic

Fluxapyroxad : Not Carcinogenic

Reproductive toxicity**Chemical name**

Prothioconazole : Not toxic for the reproductive system

Fluxapyroxad : Effects on or via lactation

STOT - Single Exposure**Chemical name**

Prothioconazole : Not classified

Fluxapyroxad : Not classified

STOT - Repeated Exposure**Chemical name**

Prothioconazole : Not classified

Fluxapyroxad : Not classified

Aspiration hazard

Chemical name

Prothioconazole : Not classified
Fluxapyroxad : No data available

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

<u>Acute toxicity</u>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	: 3.72	Rainbow trout	OECD 203	semi-static
Crustacea 48-hour EC50 mg/l	: 6.58	Daphnia magna	OECD 202	Static
Algae 72-hour EC50 mg/l	: 8.70	P. subcapitata	OECD 201	Biomass
Other plants EC50 mg/l	: ----			

<u>Chronic aquatic toxicity</u>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish NOEC mg/l	: No data available			
Crustacea NOEC mg/l	: No data available			
Algae NOEC mg/l	: No data available			
Other plants NOEC mg/l	: No data available			

Terrestrial Toxicity

Birds Oral LD50 mg/kg

Chemical name

Prothioconazole : > 2000 Bobwhite quail FIFRA 71-1

Bees Oral LD50 µg/bee

Chemical name

Prothioconazole : > 71 Apis mellifera OECD 213

12.2. Persistence and degradability

Abiotic Degradation

Water DT50 days

Chemical name

Prothioconazole : 0.8 - 1.0 OECD 308

Soil DT50 days

Chemical name

Prothioconazole : 2.8 OECD 307

Biodegradation

Chemical name

Fluxapyroxad : Not readily biodegradable OECD 301B

12.3. Bioaccumulative potential

Partition Coefficient

(n-octanol/water) Log Pow

Chemical name

Prothioconazole : 3.04 OECD 117

Fluxapyroxad	: 3.1	OECD 117	pH 7; 20 ° C 20 ° C; pH 7
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Bioconcentration factor (BCF)**Chemical name**

Prothioconazole	: 19.7	OECD 305
Fluxapyroxad	: 36 - 37	OECD 305

12.4. Mobility in soil**Adsorption/Desorption****Chemical name**

Prothioconazole	: 1765	OECD 312	No data available
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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. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products	Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local 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: Transport information**ADR**

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole, Fluxapyroxad)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole, Fluxapyroxad), 9, III
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 601, 375
Classification code	M6

RID

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole, Fluxapyroxad)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole, Fluxapyroxad), 9, III
Environmental hazard	Yes

Special Precautions for Users**14.5 Environmental hazard** Yes**14.6 Special Precautions for Users****Special Provisions** 274, 335, 375, 601
Classification code M6**IMDG****14.1 UN number** UN3082**14.2 UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole, Fluxapyroxad)**14.3 Transport hazard class(es)** 9**14.4 Packing group** III**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole, Fluxapyroxad), 9, III, Marine pollutant**14.5 Environmental hazard** Yes**14.6 Special Precautions for Users****14.5 Marine pollutant** P**Environmental hazard** Yes**14.6 Special Precautions for Users****Special Provisions** 274, 335, 969**EmS-No** F-A, S-F**IMDG Stowage and segregation** Category A No information available**14.7 Maritime transport in bulk according to IMO instruments** No information available**IATA****14.1 UN number** UN3082**14.2 UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole, Fluxapyroxad)**14.3 Transport hazard class(es)** 9**14.4 Packing group** III**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prothioconazole, Fluxapyroxad), 9, III**14.5 Environmental hazard** Yes**14.6 Special Precautions for Users****Special Provisions** A97, A158, A197**ERG Code** 9L

* 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**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Trade name / designation****Registration Number(s)****Date**

Not Applicable

Not Applicable

Not Applicable

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

15.2. Chemical safety assessment**Chemical Safety Report**

A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H362 - May cause harm to breast-fed children
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

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Revision date 18-Dec-2024

Reason for revision

Further information This material safety data sheet complies with the provisions of Regulation (EC) No 1907/2006, as amended by Regulation (EU) 2020/878.

Abbreviations and 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

Classification according to Regulation (EC) No. 1272/2008 [CLP]**Classification of the mixture**

H318 - Causes serious eye damage
H362 - May cause harm to breast-fed children
H411 - Toxic to aquatic life with long lasting effects

Classification procedure

Classification based on test data
Classification based on Calculation method
Classification based on Calculation method

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

Disclaimer

The information provided in this 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