



# SAFETY DATA SHEET

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

## ORIOUS P

Revision Date 01-Feb-2015

Version 2

Product No FNG56797-44/1

Publish Date 01-Feb-2015

R-18156 MCW-432 EW

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

### 1.1. Product identifier

## ORIOUS P

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 - Oral	Category 4 - (H302)
Serious eye damage/eye irritation	Category 2 - (H319)
Reproductive Toxicity	Category 2 - (H361d)
Acute aquatic toxicity	Category 1 - (H400)
Hazardous to the Aquatic Environment - Chronic Hazard	Category 1 - (H410)

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

Full text of R-phrases: see section 16

Xn;R22 - Xi;R36 - Repr. cat. 3;R63 - N;R50-53

**2.2. Label elements**

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

**Hazard pictograms**



**Signal word**

Warning

**Hazard Statements**

H302 - Harmful if swallowed  
 H319 - Causes serious eye irritation  
 H361d - Suspected of damaging 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  
 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  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection\*\*\*

**EU Specific Hazard Statements**

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use  
 EUH208 - Contains Propanoic acid, 2-hydroxy-, 2-ethylhexyl ester. May produce an allergic reaction\*\*\*

**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
Tebuconazole	11-13.5	107534-96-3	403-640-2***	603-197-00-7	Acute Tox. 4 (H302) Repr. 2 (H361d) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)***	Xn; R22 Repr.Cat.3; R63 N; R50-53***	M=1 M=10***	-
Prochloraz	22-27	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***	-
Propanoic acid, 2-hydroxy-, 2-ethylhexyl ester	40-45	186817-80-1	-	-	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	Xi;R36/38 R43		-

Sodium dioctyl sulphosuccinate	1.5-3	577-11-7	209-406-4	-	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) ***	Xi; R38-R41		-
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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**

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**

Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. When using do not eat, drink or smoke. 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**

**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.

**General Hygiene Considerations** Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. When using do not eat, drink or smoke. 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>
<b>Appearance</b>			
<b>Physical state</b>	: Liquid		
<b>Color</b>	: orange light brown		
<b>Odor</b>	: No information available		
<b>Odor threshold</b>	: No data available		
<b>pH</b>	: 6.8-7.8	CIPAC MT 75.3	solution (1 %)
<b>Melting point/freezing point °C</b>	: No data available		
<b>Boiling point/boiling range °C</b>	: No data available		
<b>Flash point °C</b>	: 154	EEC A.9	
<b>Evaporation rate</b>	: Not Applicable		
<b>Flammability (solid, gas)</b>	: Not Applicable		
<b>Upper/lower flammability or explosive limits</b>	: No data available		
<b>Vapor pressure kPa</b>	: No data available		
<b>Vapor density</b>	: No data available		
<b>Relative density</b>	: 1.04-1.12	EEC A.3	
<b>Solubility(ies) mg/l</b>	: No data available		
<b>Partition Coefficient (n-octanol/water) Log Pow</b>	:		See Section 12 for more information
<b>Autoignition temperature °C</b>	: 275	EEC A.15	
<b>Decomposition temperature °C</b>	: No data available		
<b>Kinematic viscosity mm<sup>2</sup>/s 40 °C</b>	: 43.469	OECD 114	
<b>Explosive properties</b>	: Not an explosive		
<b>Oxidizing properties</b>	: No data available		

**9.2. Other information**

<b>Bulk density g/ml</b>	:		
<b>Surface tension mN/m</b>	: 35.6	OECD 115 EEC A.5	

**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

None under normal use conditions.

## 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 402	
Inhalation LC50 mg/l/4h	: >5.35	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	

#### Chronic toxicity

##### Germ cell mutagenicity

###### Chemical Name

Tebuconazole : Not classified  
Prochloraz : Not classified\*\*\*

##### Carcinogenicity

###### Chemical Name

Tebuconazole : Not classified  
Prochloraz : Not classified\*\*\*

##### Reproductive toxicity

###### Chemical Name

Tebuconazole : H361d - Suspected of damaging the unborn child  
Prochloraz : Not classified\*\*\*

##### STOT - single exposure

###### Chemical Name

Tebuconazole : No information available  
Prochloraz : No data available\*\*\*

##### STOT - repeated exposure

###### Chemical Name

Tebuconazole : No information available  
Prochloraz : No data available\*\*\*

##### Aspiration hazard

###### Chemical Name

Tebuconazole : No information available  
Prochloraz : No data available\*\*\*

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Aquatic toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
<b>Acute toxicity</b>				
Fish 96-hour LC50 mg/l	: 1.77	Oncorhynchus mykiss	OECD 203	Static
Crustacea 48-hour EC50 mg/l	: 12	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 0.41	Selenastrum capricornutum	OECD 201	Static
Other plants EC50 mg/l	:		***	***

**Terrestrial Toxicity**

**Birds Oral LD50 mg/kg**

**Chemical Name**

Tebuconazole	: 1988	Bobwhite quail		
Prochloraz	: 624***	Bobwhite quail***	US EPA 71-1***	

**Bees Oral LD50 µg/bee**

**Chemical Name**

Tebuconazole	: 83.05			Oral***
Prochloraz	: 684***			

**12.2. Persistence and degradability**

**Abiotic Degradation**

**Water DT50 days**

**Chemical Name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Tebuconazole	: 365		
Prochloraz	: 11.7***		

**Soil DT50 days**

**Chemical Name**

Tebuconazole	: 34.8		
Prochloraz	: 223.62***		

**Biodegradation**

**Chemical Name**

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

**12.3. Bioaccumulative potential**

**Partition Coefficient**

**(n-octanol/water) Log Pow**

**Chemical Name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Tebuconazole	: 3.7		
Prochloraz	: 4.3***	EEC A.8***	20-25 ° C***

**Bioconcentration factor (BCF)**

**Chemical Name**

Tebuconazole	: 78		
Prochloraz	: 150-247***		

**12.4. Mobility in soil**

**Adsorption/Desorption**

**Chemical Name**

	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Tebuconazole	: 769		Koc
Prochloraz	: 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**

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

**Section 14: TRANSPORTATION INFORMATION**

**IMDG/IMO**

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

**RID/ADR**

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

**ICAO/IATA**

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



**Section 15: REGULATORY INFORMATION**



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

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**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.

<b>Section 16: OTHER INFORMATION</b>
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**Full text of R-phrases referred to under sections 2 and 3**

R43 - May cause sensitization by skin contact

R22 - Harmful if swallowed

R63 - Possible risk of harm to the unborn child

R36/38 - Irritating to eyes and skin

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

R51/53 - Toxic 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**

H302 - Harmful if swallowed

H361d - Suspected of damaging the unborn child

H411 - Toxic to aquatic life with long lasting effects

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H400 - Very toxic to aquatic life

H410 - Very toxic 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