

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** FATHOM

**Product code:** 1641

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

**Use of substance / mixture:** Can be used as fungicide only.

**1.3. Details of the supplier of the safety data sheet**

**Company name:** Headland Agrochemicals

Rectors Lane

Pentre

Flintshire

CH5 2DH

United Kingdom

**Tel:** +44(0)1244 537370

**Fax:** +44(0)1244 532097

**Email:** [enquiry@headlandgroup.com](mailto:enquiry@headlandgroup.com)

**1.4. Emergency telephone number**

**Emergency tel:** +44(0)1244 537370

(office hours only)

**Section 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification under CLP:** \* Skin Sens. 1B: H317; Eye Irrit. 2: H319; Repr. 2: H361d; Aquatic Chronic 2: H411; -: EUH401

**Most important adverse effects:** May cause an allergic skin reaction. Causes serious eye irritation. Suspected of damaging the unborn child. Toxic to aquatic life with long lasting effects. To avoid risks to human health and the environment, comply with the instructions for use.

**2.2. Label elements**

**Label elements:**

**Hazard statements:** \* H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H361d: Suspected of damaging the unborn child.

H411: Toxic to aquatic life with long lasting effects.

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

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**Signal words:** \* Warning

**Hazard pictograms:** \* GHS07: Exclamation mark

GHS08: Health hazard

GHS09: Environmental



**Precautionary statements:** \* P261: Avoid breathing vapours.

P264: Wash hands thoroughly after handling.

P273: Avoid release to the environment.

P281: Use personal protective equipment as required.

P305+351+338: 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 hazardous or special waste collection point.

## 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

\* **Hazardous ingredients:**

TEBUCONAZOLE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
403-640-2	107534-96-3	-	Repr. 2: H361d; Acute Tox. 4: H302; Aquatic Chronic 2: H411	10-30%

OCTAN-1-OL - REACH registered number(s): 01-2119486978-10-XXXX

203-917-6	111-87-5	-	Eye Irrit. 2: H319	10-30%
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TRISTYRYLPHENYL-POLYETHYLENEGLYCOL-PHOSPHORIC ACID

-	114535-82-9	-	Eye Irrit. 2: H319	1-10%
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BENZENESULPHONIC ACID, 4-C10-C13-SEC-ALKYL DERIVS. - REACH registered number(s): 01-2119490234-40-XXXX

287-494-3	85536-14-7	-	Acute Tox. 4: H302; Skin Corr. 1C: H314	1-10%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Consult a doctor if irritation develops.

**Eye contact:** Bathe the eye with running water for 15 minutes. Remove contact lenses, if present, after the first few minutes, then continue rinsing. Consult a doctor if irritation persists or problems with vision occur.

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**Ingestion:** Do not induce vomiting. Wash out mouth with water. Drink several glasses of water or milk. If vomiting occurs, rinse mouth and drink fluids again. Transfer to hospital as soon as possible.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.

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

**Skin contact:** \* There may be irritation and redness at the site of contact. May produce an allergic reaction.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** \* Animal tests on a similar product showed ingestion of high doses can cause symptoms including passivity, impaired mobility and shortness of breath.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Delayed / immediate effects:** No data available.

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

**Immediate / special treatment:** Immediate medical attention is required in case of ingestion. Show this safety data sheet to the doctor in attendance. There is no known specific antidote for this substance. Gastric lavage and/or administration of activated charcoal can be considered. After decontamination, treatment should be directed at the control of symptoms and the clinical condition.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Use water spray to cool containers. Avoid heavy hose streams.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In combustion emits toxic fumes. The essential breakdown products are: carbon monoxide, carbon dioxide, nitrogen oxides, sulphur dioxide, hydrogen chloride, phosphorus pentoxide and various chlorinated organic compounds.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** \* Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water run off. Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** \* Refer to section 8 of SDS for personal protection details. Eliminate all sources of

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ignition. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid. In the case of large spills, (1 ton or more) alert the appropriate authorities.

## 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding. Accidental release into water courses must be alerted to the appropriate regulatory body.

## 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** \* Do not use equipment in clean-up procedure which may produce sparks. Surface water drains within close vicinity of the spill should be covered. Spills on the floor or other impervious surface should be absorbed onto an absorptive material such as hydrated lime, universal binder, or other absorbent clays. Collect the contaminated absorbent in suitable containers. Rinse the area with water and industrial detergent. Absorb wash liquid onto absorbent and transfer to suitable containers. Spills which soak into the ground should be dug up and placed in suitable containers. Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal. Refer to section 13 of SDS for suitable method of disposal.

## 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** \* Pregnant women should not work with this product. Avoid direct contact with the substance. Material should be handled by mechanical means as much as possible. Ensure there is sufficient ventilation of the area. Exhaust gases should be filtered or treated otherwise. For its use as a pesticide, look for precautions and personal protective measures on the officially approved label or other official guidance or policy in force. If these are lacking, see section 8 of this SDS. Remove contaminated clothing immediately after handling, then wash thoroughly and put on clean clothes. Clean protective clothing and protective equipment with soap and water after use. Collect all wash water and dispose of as hazardous waste.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Crystallisation may occur at temperatures below -10°C. Recommended storage temperature: 5°C to 30°C. Keep container tightly closed. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor. The room should only be used for storage of chemicals, and without access to unauthorised persons or children. Food, drink, feed and seed should not be present. A warning sign reading 'POISON' is recommended. A hand wash station should be available.

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**Suitable packaging:** \* The product contains an ingredient which can be degraded by fluorinated packaging materials.

## 7.3. Specific end use(s)

**Specific end use(s):** This product is a registered pesticide, which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Workplace exposure limits:** No data available.

### DNEL/PNEC Values

**Hazardous ingredients:**

#### TEBUCONAZOLE

Type	Exposure	Value	Population	Effect
DNEL	-	0.03 mg/kg.bw/day	-	-
PNEC	-	1 µg/l	-	-

### 8.2. Exposure controls

**Engineering measures:** When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping system non-hazardous before opening.

**Respiratory protection:** The product is not likely to present an airborne exposure concern during normal handling, but in the event of a discharge of the material which produces a heavy vapour or mist, workers should put on officially approved face mask or respiratory protection: Respiratory protection with universal filter type, including particle filter.

**Hand protection:** Wear heavy duty natural rubber or chemical resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton. The breakthrough times of these materials for the product are unknown. Replace gloves frequently and limit work done manually.

**Eye protection:** Face-shield. Ensure eye bath is to hand.

**Skin protection:** Waterproof pants and apron of chemical resistant material or coveralls with polyethylene (PE) coating will be sufficient for short time exposure. Coveralls must be discarded after use if contaminated. In cases of prolonged exposure, barrier laminate coveralls may be required.

**Environmental:** Refer to specific Member State legislation for requirements under Community environmental legislation.

## Section 9: Physical and chemical properties

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## 9.1. Information on basic physical and chemical properties

**State:** Liquid  
**Colour:** Pale yellow  
**Odour:** Soap-like  
**Oxidising:** Non-oxidising (by EC criteria)  
**Solubility in water:** Dispersible in water  
**Viscosity:** 9.0 mPa.s at 20°C; 4.9 mPa.s at 40°C  
**Flash point°C:** 73  
**Autoflammability°C:** 262  
**pH:** 3.5 (1% in water)  
**Part.coeff. n-octanol/water:** See section 12.3  
**Relative density:** 0.976 g/ml at 20°C

## 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat.

### 10.5. Incompatible materials

**Materials to avoid:** The product contains an ingredient which can be degraded by fluorinated packaging materials.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes. See subsection 5.2.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

**\* Toxicity values:**

Route	Species	Test	Value	Units
ORAL	RAT	LD50	>2000	mg/kg

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DERMAL	RAT	LD50	>2000	mg/kg
INHALATION	RAT	4H LC50	>5.13	mg/l

## Hazardous ingredients:

### TEBUCONAZOLE

DERMAL	RAT	LD50	>2000	mg/kg
INHALATION	RAT	4H LC50	>5.093	mg/l
ORAL	RAT	LD50	>1700	mg/kg

### OCTAN-1-OL

DERMAL	GPG	LD50	>1000	mg/kg
ORAL	RAT	LD50	>3200	mg/kg

### TRISTYRYLPHENYL-POLYETHYLENEGLYCOL-PHOSPHORIC ACID

ORAL	RAT	LD50	>2000	mg/kg
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### BENZENESULPHONIC ACID, 4-C10-C13-SEC-ALKYL DERIVS.

DERMAL	RAT	LD50	>2000	mg/kg
ORAL	RAT	LD50	1350 - 1470	mg/kg

## Relevant hazards for substance:

Hazard	Route	Basis
Serious eye damage/irritation	OPT	Hazardous: calculated
Reproductive toxicity	--	Hazardous: calculated

## Symptoms / routes of exposure

**Skin contact:** \* There may be irritation and redness at the site of contact. May produce an allergic reaction.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** \* Animal tests on a similar product showed ingestion of high doses can cause symptoms including passivity, impaired mobility and shortness of breath.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**Delayed / immediate effects:** No data available.

## Section 12: Ecological information

### 12.1. Toxicity

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## \* Ecotoxicity values:

Species	Test	Value	Units
HONEYBEE ( <i>Apis mellifera</i> )	48H LD50 contact	339	µg/bee
HONEYBEE ( <i>Apis mellifera</i> )	48H LD50 oral	74	µg/bee
EARTHWORM ( <i>Eisenia fetida</i> )	14d LC50	1203	mg/kg.soil
ALGAE ( <i>Desmodesmus subspicatus</i> )	72H NOEC	2.88	mg/l
ALGAE ( <i>Desmodesmus subspicatus</i> )	72H EC50	28.05	mg/l
DAPHNID ( <i>Daphnia magna</i> )	48H EC50	17.2	mg/l
RAINBOW TROUT ( <i>Oncorhynchus mykiss</i> )	96H LC50	24.2	mg/l

## 12.2. Persistence and degradability

**Persistence and degradability:** \* Tebuconazole is not readily biodegradable. It is slowly degraded in soil. Primary degradation half-lives vary with circumstance, usually from around 40 to 180 days in aerobic soil. The product contains minor amounts of not readily biodegradable ingredients, which may not be degradable in waste water treatment plants.

## 12.3. Bioaccumulative potential

**Bioaccumulative potential:** Tebuconazole: Log Kow = 3.7 (at 20°C). Tebuconazole is considered to have a low bioaccumulation potential; bioconcentration factor (BCF) measured to be 65, on average, for whole fish.

## 12.4. Mobility in soil

**Mobility:** Tebuconazole is of low mobility in soil.

## 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

## 12.6. Other adverse effects

**Other adverse effects:** No data available.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Waste that cannot be reused or chemically reprocessed can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

**Disposal of packaging:** Triple rinse (or equivalent) and offer for recycling or reconditioning. Do not discharge cleaning water to sewer systems. Alternatively, packaging can be delivered to a licensed service for disposal of hazardous waste. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

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## Section 14: Transport information

### 14.1. UN number

UN number: UN3082

### 14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(TEBUCONAZOLE)

### 14.3. Transport hazard class(es)

Transport class: 9

### 14.4. Packing group

Packing group: III

### 14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: Yes

### 14.6. Special precautions for user

Special precautions: Do not discharge to the environment.

Tunnel code: E

Transport category: 3

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk: The product is not transported in bulk tankers.

## Section 15: Regulatory information

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

Specific regulations: \* Dir. 92/85/EEC: The employer shall assess the degree and duration of exposure at the workplace and any possible effect on pregnant women working with this product, and decide which measures should be taken. Workers under the age of 18 are not permitted to work with the product. All ingredients in this product are covered by EU chemical legislation. Product Registration Number: MAPP 15328.

### 15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: EUH401: To avoid risks to human health and the environment, comply with the

[cont...]

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instructions for use.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H361d: Suspected of damaging the unborn child.

H411: Toxic to aquatic life with long lasting effects.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.