

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

### 1.1. Product identifier

Product form : Mixture  
Product name : SIRENA  
Product group : Trade product

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

#### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

#### 1.2.2. Uses advised against

No additional information available

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

Globachem NV  
Brustem Industriepark - Lichtenberglaan 2019  
B-3800 Sint-Truiden  
T +32 11 78 57 17 - F +32 11 68 15 65  
[globachem@globachem.com](mailto:globachem@globachem.com) - [www.globachem.com](http://www.globachem.com)

### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0870 600 6266 (UK only),	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	
United Kingdom	National Poisons Information Service Edinburgh Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA Edinburgh	0344 892 0111	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0344 892 0111	

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Flammable liquids, Category 3 H226  
Skin corrosion/irritation, Category 2 H315  
Serious eye damage/eye irritation, Category 1 H318  
Skin sensitisation, Category 1 H317  
Reproductive toxicity, Category 2 H361d  
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335  
Aspiration hazard, Category 1 H304  
Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410  
Full text of H statements : see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

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### 2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) : Danger

Hazardous ingredients : Metconazole

Hazard statements (CLP) : H226 - Flammable liquid and vapour.  
H304 - May be fatal if swallowed and enters airways.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H318 - Causes serious eye damage.  
H335 - May cause respiratory irritation.  
H361d - Suspected of damaging the unborn child.  
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor.  
P331 - Do NOT induce vomiting.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

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

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
pentanol, branched and linear	(CAS-No.) 94624-12-1 (EC-No.) 305-536-1	< 40	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
Metconazole	(CAS-No.) 125116-23-6 (EC Index-No.) 613-284-00-1	6.7	Acute Tox. 4 (Oral), H302 Repr. 2, H361d Aquatic Chronic 2, H411

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

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First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor if you feel unwell.

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

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

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

No additional information available

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

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

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

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

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

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Wear protective gloves.

### Eye protection:

Chemical goggles or safety glasses

### Respiratory protection:

Wear appropriate mask

### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: characteristic.
Odour threshold	: No data available
pH	: 5.5 – 7.5
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: < -30 °C
Freezing point	: No data available
Boiling point	: 172 – 185
Flash point	: 43 °C
Auto-ignition temperature	: 289 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: 160 Pa (20°C)
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.89 g/cm <sup>3</sup> (20°C)
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: 6 mm <sup>2</sup> /s (40°C)
Viscosity, dynamic	: 5.3 mPa·s (40°C)
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing material according to EC criteria.
Lower explosive limit (LEL)	: 0.6 vol %
Upper explosive limit (UEL)	: 8 vol %

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
 Acute toxicity (dermal) : Not classified  
 Acute toxicity (inhalation) : Not classified

SIRENA	
LD50 oral rat	2102 mg/kg
LD50 dermal rat	> 4000 mg/kg
LC50 inhalation rat (mg/l)	> 9.57 mg/l/4h

Metconazole (125116-23-6)	
LD50 oral rat	595 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bw/day
LC50 inhalation rat (mg/l)	> 5.6 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.  
 pH: 5.5 – 7.5

Additional information : Based on available data, the classification criteria are not met

Serious eye damage/irritation : Causes serious eye damage.  
 pH: 5.5 – 7.5

Additional information : Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Additional information : Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Reproductive toxicity : Suspected of damaging the unborn child.

Additional information : Based on available data, the classification criteria are not met

STOT-single exposure : May cause respiratory irritation.

Additional information : Based on available data, the classification criteria are not met

STOT-repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : May be fatal if swallowed and enters airways.

Additional information : Based on available data, the classification criteria are not met

SIRENA	
Viscosity, kinematic	6 mm <sup>2</sup> /s (40°C)

Potential adverse human health effects and symptoms : Harmful if swallowed.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

SIRENA	
LC50 fish 1	10 mg/l (96 h) <i>Oncorhynchus mykiss</i>
EC50 Daphnia 1	9.28 mg/l (48 h) <i>Daphnia magna</i>
ErC50 (algae)	3.94 mg/l (72 h) <i>Selenastrum capricornutum</i>

Metconazole (125116-23-6)	
LC50 fish 1	2.1 mg/l <i>Salmo gairdneri</i> (72h)
EC50 Daphnia 1	4.2 mg/l <i>Daphnia magna</i> (48h)

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### 12.2. Persistence and degradability

#### SIRENA

Persistence and degradability	May cause long-term adverse effects in the environment.
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### 12.3. Bioaccumulative potential

#### SIRENA

Bioaccumulative potential	Not established.
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#### Metconazole (125116-23-6)

Partition coefficient n-octanol/water (Log Pow)	3.85 (20°C)
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### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADN / ADR / IATA / IMDG / RID

### 14.1. UN number

UN-No. (ADR)	: 1993
UN-No. (IMDG)	: 1993
UN-No. (IATA)	: 1993
UN-No. (ADN)	: 1993
UN-No. (RID)	: 1993

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: FLAMMABLE LIQUID, N.O.S. (Contains pentanol, metconazole)
Proper Shipping Name (IMDG)	: FLAMMABLE LIQUID, N.O.S. (Contains pentanol, metconazole)
Proper Shipping Name (IATA)	: Flammable liquid, n.o.s. (Contains pentanol, metconazole)
Proper Shipping Name (ADN)	: FLAMMABLE LIQUID, N.O.S. (Contains pentanol, metconazole)
Proper Shipping Name (RID)	: FLAMMABLE LIQUID, N.O.S. (Contains pentanol, metconazole)
Transport document description (ADR)	: UN 1993 FLAMMABLE LIQUID, N.O.S. (Contains pentanol, metconazole), 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 1993 FLAMMABLE LIQUID, N.O.S. (Contains pentanol, metconazole), 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 1993 Flammable liquid, n.o.s. (Contains pentanol, metconazole), 3, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 1993 FLAMMABLE LIQUID, N.O.S. (Contains pentanol, metconazole), 3, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 1993 FLAMMABLE LIQUID, N.O.S. (Contains pentanol, metconazole), 3, III, ENVIRONMENTALLY HAZARDOUS

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR)	: 3
Danger labels (ADR)	: 3



#### IMDG

Transport hazard class(es) (IMDG)	: 3
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Danger labels (IMDG) : 3



### IATA

Transport hazard class(es) (IATA) : 3

Danger labels (IATA) : 3



### ADN

Transport hazard class(es) (ADN) : 3

Danger labels (ADN) : 3



### RID

Transport hazard class(es) (RID) : 3

Danger labels (RID) : 3



#### 14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

#### 14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

#### 14.6. Special precautions for user

##### - Overland transport

Classification code (ADR) : F1

Special provisions (ADR) : 274, 601

Limited quantities (ADR) : 5I

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : MP19

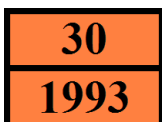
Portable tank and bulk container instructions (ADR) : T4

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Portable tank and bulk container special provisions (ADR) : TP1, TP29  
Tank code (ADR) : LGBF  
Vehicle for tank carriage : FL  
Transport category (ADR) : 3  
Special provisions for carriage - Packages (ADR) : V12  
Special provisions for carriage - Operation (ADR) : S2  
Hazard identification number (Kemler No.) : 30  
Orange plates :



Tunnel restriction code (ADR) : D/E  
EAC code : •3YE

### - Transport by sea

Special provisions (IMDG) : 223, 274, 955  
Packing instructions (IMDG) : P001, LP01  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP1, TP29  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-E  
Stowage category (IMDG) : A

### - Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y344  
PCA limited quantity max net quantity (IATA) : 10L  
PCA packing instructions (IATA) : 355  
PCA max net quantity (IATA) : 60L  
CAO packing instructions (IATA) : 366  
CAO max net quantity (IATA) : 220L  
Special provisions (IATA) : A3  
ERG code (IATA) : 3L

### - Inland waterway transport

Classification code (ADN) : F1  
Special provisions (ADN) : 274, 601  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01  
Number of blue cones/lights (ADN) : 0

### - Rail transport

Classification code (RID) : F1  
Special provisions (RID) : 274, 601  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T4  
Portable tank and bulk container special provisions (RID) : TP1, TP29  
Tank codes for RID tanks (RID) : LGBF  
Transport category (RID) : 3



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Special provisions for carriage – Packages (RID) : W12

Colis express (express parcels) (RID) : CE4

Hazard identification number (RID) : 30

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

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

Flam. Liq. 3	H226
Skin Irrit. 2	H315
Eye Dam. 1	H318
Skin Sens. 1	H317
Repr. 2	H361d
STOT SE 3	H335
Asp. Tox. 1	H304
Aquatic Chronic 1	H410

Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

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EUH401	To avoid risks to human health and the environment, comply with the instructions for use.
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SDS EU (REACH Annex II) (2017/11/09)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*