



## CENTAUR

Version 4 / GB  
102000015664

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Revision Date: 19.05.2014  
Print Date: 19.05.2014

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

#### 1.1 Product identifier

Trade name                                   CENTAUR  
Product code (UVP)                       06126013

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

Use   Fungicide

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

Supplier                                       Bayer CropScience Limited  
230 Cambridge Science Park  
Milton Road  
Cambridge  
Cambridgeshire CB4 0WB  
United Kingdom

Telephone                                   +44(0)1223 226500  
Telefax                                       +44(0)1223 426240  
Responsible Department                Email: [ukinfo@bayercropscience.com](mailto:ukinfo@bayercropscience.com)

#### 1.4 Emergency telephone no.

Emergency telephone no.               0800-220876 (UK 24 hr)  
   +44(0)1635-563000 (Overseas 24 hr)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Reproductive toxicity: Category 2  
H361d                                       Suspected of damaging the unborn child.

Skin sensitisation: Category 1  
H317                                       May cause an allergic skin reaction.

Eye irritation: Category 2  
H319                                       Causes serious eye irritation.

Chronic aquatic toxicity: Category 2  
H411                                       Toxic to aquatic life with long lasting effects.

#### **Classification according to EU Directives 67/548/EEC or 1999/45/EC**

Repr.Cat.3, R63  
Xi Irritant, R36  
R43  
N Dangerous for the environment, R51/53

#### 2.2 Label elements

**Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Hazard label for supply/use required.

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- Cyproconazole

**Signal word:** Warning**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.

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor/physician.  
 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.

**2.3 Other hazards**

No other hazards known.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Chemical nature**Emulsifiable concentrate (EC)  
Cyproconazole 200 g/l**Hazardous components**R-phrase(s) according to EC directive 67/548/EEC  
Hazard statements according to Regulation (EC) No. 1907/2006

Name	CAS-No. / EC-No.	Classification		Conc. [%]
		EC Directive 67/548/EEC	Regulation (EC) No 1272/2008	
Cyproconazole	94361-06-5 619-020-1	Repr.Cat.3 R63 Xn; R22 N; R50/53	Repr. 2, H361d Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	19.80
2-Ethylhexanol propylene ethyleneglycol ether	64366-70-7 613-582-1	R52/53	Aquatic Chronic 3, H412	> 1.00 - < 25.00
gamma- Butyrolactone	96-48-0 202-509-5	Xn; R22 Xi; R41 R67	Acute Tox. 4, H302 Eye Dam. 1, H318 STOT SE 3, H336	> 1.00 - < 25.00

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N,N-Dimethyl decanamide	14433-76-2 238-405-1	Xi; R36/38	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412	> 5.00 - < 10.00
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**Further information**

Cyproconazole	94361-06-5	M-Factor: 10 (acute)
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For the full text of the R-phrases/ Hazard statements mentioned in this Section, see Section 16.

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures**

<b>General advice</b>	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
<b>Inhalation</b>	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
<b>Skin contact</b>	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If eye irritation or redness persists, see an ophthalmologist.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

**4.2 Most important symptoms and effects, both acute and delayed**

**Symptoms** No symptoms known or expected.

**4.3 Indication of any immediate medical attention and special treatment needed**

**Treatment** Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. There is no specific antidote.

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media**

**Suitable** Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, Sand

**5.2 Special hazards arising from the substance or mixture** In the event of fire the following may be released: Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NO<sub>x</sub>)

**5.3 Advice for firefighters**

**Special protective equipment for fire-fighters** In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

**Further information** Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

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**Precautions** Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

**6.2 Environmental precautions** Do not allow to get into surface water, drains and ground water. If spillage enters drains leading to sewage works inform local water company immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

**6.3 Methods and materials for containment and cleaning up**

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

**SECTION 7: HANDLING AND STORAGE****7.1 Precautions for safe handling**

**Advice on safe handling** No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.

**Hygiene measures** Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

**7.2 Conditions for safe storage, including any incompatibilities**

**Requirements for storage areas and containers** Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight.

**Advice on common storage** Keep away from food, drink and animal feedingstuffs.

**Suitable materials** HDPE (high density polyethylene)  
Coextruded containers with an internal barrier layer made of ethylene vinyl alcohol copolymer (EVOH)

**7.3 Specific end uses** Refer to the label and/or leaflet.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Cyproconazole	94361-06-5	0.08 mg/m <sup>3</sup>		OES BCS*

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\*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

**8.2 Exposure controls**

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

**Personal protective equipment**

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

**Respiratory protection**

If product is handled while not enclosed, and if contact may occur: Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

**Hand protection**

Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness of 0,4 mm). Wash when contaminated and dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

**Eye protection**

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

**Skin and body protection**

Wear standard coveralls and Category 3 Type 4 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

<b>Form</b>	Liquid, clear to slightly turbid
<b>Colour</b>	light yellow to light brown
<b>Odour</b>	weak, amine-like
<b>pH</b>	4.0 - 6.0 at 1 % (23 °C) (deionized water)
<b>Flash point</b>	>100 °C
<b>Density</b>	ca. 1.01 g/cm <sup>3</sup> at 20 °C
<b>Water solubility</b>	emulsifiable
<b>Partition coefficient: n-octanol/water</b>	Cyproconazole: log Pow: 3.1

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**9.2 Other information** Further safety related physical-chemical data are not known.

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**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity**

**Thermal decomposition** Stable under normal conditions.

**10.2 Chemical stability** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**10.4 Conditions to avoid** Extremes of temperature and direct sunlight.

**10.5 Incompatible materials** Store only in the original container.

**10.6 Hazardous decomposition products** No decomposition products expected under normal conditions of use.

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**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

**Acute oral toxicity** LD50 (rat) > 5,000 mg/kg

**Acute inhalation toxicity** LC50 (rat) 5.266 mg/l  
Exposure time: 4 h  
Determined in the form of a respirable aerosol.

**Acute dermal toxicity** LD50 (rat) > 2,000 mg/kg

**Skin irritation** No skin irritation (rabbit)

**Eye irritation** Irritating to eyes. (rabbit)

**Sensitisation** Sensitising (mouse)  
OECD Test Guideline 429, local lymph node assay (LLNA)

**Assessment repeated dose toxicity**

Cyproconazole did not cause specific target organ toxicity in experimental animal studies.

**Assessment Mutagenicity**

Cyproconazole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment Carcinogenicity**

Cyproconazole was not carcinogenic in a lifetime feeding study in rats. Cyproconazole caused at high dose levels an increased incidence of tumours in mice in the following organ(s): liver. The tumours seen with Cyproconazole were caused through peroxisome proliferation. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

**Assessment toxicity to reproduction**

Cyproconazole did not cause reproductive toxicity in a two-generation study in rats.

**Assessment developmental toxicity**

Cyproconazole caused developmental toxicity only at dose levels toxic to the dams. Cyproconazole caused an increased incidence of non-specific malformations.

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**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**

<b>Toxicity to fish</b>	LC50 (Oncorhynchus mykiss (rainbow trout)) 19 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient cyproconazole.
<b>Toxicity to aquatic invertebrates</b>	EC50 (Water flea (Daphnia magna)) 8.2 mg/l Exposure time: 48 h
<b>Toxicity to aquatic plants</b>	IC50 (Desmodemus subspicatus) 1.14 mg/l Growth rate; Exposure time: 72 h

**12.2 Persistence and degradability**

**Biodegradability** Cyproconazole:  
not rapidly biodegradable

**Koc** Cyproconazole: Koc: 309

**12.3 Bioaccumulative potential**

**Bioaccumulation** Cyproconazole:  
Does not bioaccumulate.

**12.4 Mobility in soil**

**Mobility in soil** Cyproconazole: Moderately mobile in soils

**12.5 Results of PBT and vPvB assessment**

**PBT and vPvB assessment** Cyproconazole: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

**12.6 Other adverse effects**

**Additional ecological information** No other effects to be mentioned.

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**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

<b>Product</b>	In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).
<b>Contaminated packaging</b>	Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times. Add washings to sprayer at time of filling. Dispose of empty and cleaned packaging safely. Large containers (> 25 l or > 25 kg) should not be rinsed or re-used for any other purpose. Return large containers to supplier. Follow advice on product label and/or leaflet.

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**Waste key for the unused product**      **020108** agrochemical waste containing dangerous substances

**SECTION 14: TRANSPORT INFORMATION****ADR/RID/ADN**

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CYPROCONAZOLE SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	90
Tunnel Code	E

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

**IMDG**

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CYPROCONAZOLE SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

**IATA**

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CYPROCONAZOLE SOLUTION )
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

**UK 'Carriage' Regulations**

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CYPROCONAZOLE SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Emergency action code	3Z

**14.6 Special precautions for user**

See sections 6 to 8 of this Safety Data Sheet.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No transport in bulk according to the IBC Code.





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### SECTION 15: REGULATORY INFORMATION

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

##### UK and Northern Ireland Regulatory References

This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.

##### Transport

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No 1348)

Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No 2367)

Air Navigation Dangerous Goods Regulations 2002 (SI 2002 No 2786)

##### Supply and Use

Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716)

Chemical (Hazard Information and Packaging for Supply) (Northern Ireland) Regulations 2009

Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No 2677)

EH40 Occupational Exposure Limits - Table 1 List of approved workplace exposure limits

Control of Pesticide Regulations 1986

Dangerous Substances and Explosive Atmospheres Regulations 2002

##### Waste Treatment

Environmental Protection Act 1990, Part II

Environmental Protection (Duty of Care) Regulations 1991

The Waste Management Licensing Regulations 1994 (as amended)

Hazardous Waste Regulations 2005 (Replacing Special Waste Regulations 1996 as amended)

Landfill Directive

Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94)

Water Resources Act 1991

Anti-Pollution Works Regulations 1999

##### Further information

WHO-classification: III (Slightly hazardous)

#### 15.2 Chemical Safety Assessment

A chemical safety assessment is not required.

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### SECTION 16: OTHER INFORMATION

#### Text of R-phrases mentioned in Section 3

R22	Harmful if swallowed.
R36/38	Irritating to eyes and skin.
R41	Risk of serious damage to eyes.
R50/53	Very 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.
R63	Possible risk of harm to the unborn child.
R67	Vapours may cause drowsiness and dizziness.

#### Text of the hazard statements mentioned in Section 3



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H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Reason for Revision:** Section 12. Ecological information. Safety Data Sheet according to Regulation (EU) No. 453/2010.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.