

TOPAS 100 EC

Version 10

Revision Date 29.05.2009

Print Date 29.05.2009

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT INFORMATION

Product name : TOPAS 100 EC
Design Code : A6209G
Use : Fungicide
Company : Syngenta Crop Protection AG
 Postfach
 CH-4002 Basel
 Switzerland
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Irritant



Dangerous for the environment

2. HAZARDS IDENTIFICATION

Causes eye irritation.
 Toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrases(s)	Concentration
penconazole	66246-88-6	266-275-6	N	R51/53	10.2 % W/W
cyclohexanone *	108-94-1	203-631-1	Xn	R10 R20	5 - 10 % W/W
benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2, 84989-14-0, 90194-26-6	247-557-8, 284-903-7, 290-635-1	Xi	R38 R41	0 - 5 % W/W
1-propanol, 2-methyl-	78-83-1	201-148-0	Xi	R10 R37/38 R41 R67	0 - 5 % W/W

* Substances for which there are Community workplace exposure limits.
 For the full text of the R-phrases mentioned in this Section, see Section 16.

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4. FIRST AID MEASURES

- General advice** : Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.
- Inhalation** : Move the victim to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or Poison Control Centre immediately.
- Skin contact** : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.
- Eye contact** : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label.
Do NOT induce vomiting.
- Medical advice** : There is no specific antidote available. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
- Extinguishing media which shall not be used for safety reasons** : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting** : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.
Flash back possible over considerable distance.
- Special protective equipment for fire-fighters** : Wear full protective clothing and self-contained breathing apparatus.
- Further information** : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Refer to protective measures listed in sections 7 and 8.
Keep people away from and upwind of spill/leak.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Remove all sources of ignition.
Pay attention to flashback.
- Environmental precautions** : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up** : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
- Additional advice** : If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE**HANDLING**

- Advice on safe handling** : Avoid contact with skin and eyes.
When using, do not eat, drink or smoke.
Take precautionary measures against static discharges.
Use only in an area containing flame proof equipment.
For personal protection see section 8.

STORAGE

- Requirements for storage areas and containers** : Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children.
Keep away from food, drink and animal feedingstuffs.
Keep away from heat and sources of ignition.
Keep away from combustible material.
Keep in an area equipped with sprinklers.
No smoking.
- Other data** : Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	Exposure limit(s)	Type of exposure limit	Source
cyclohexanone	100 mg/m ³	8 h TWA	SUVA
	200 mg/m ³	15 min STEL	SUVA
	80 mg/m ³	8 h TWA	DFG
	100 mg/m ³	8 h TWA	ACGIH
	700 ppm	IDLH	NIOSH
	10 ppm	8 h TWA	UK HSE
	20 ppm	15 min STEL	UK HSE
	40.8 mg/m ³	8 h TWA	IOELV
	10 ppm	8 h TWA	IOELV
	81.6 mg/m ³	15 min STEL	IOELV
20 ppm	15 min STEL	IOELV	
1-propanol, 2-methyl-	1,600 ppm	15 min STEL 8 h TWA 8 h TWA	NIOSH
	50 ppm		SUVA
	100 ppm		SUVA
	50 ppm		ACGIH
	100 ppm		DFG
penconazole	7 mg/m ³	8 h TWA	SYNGENTA

ENGINEERING MEASURES

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

If airborne mists or vapors are generated, use local exhaust ventilation controls.

Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.

Where necessary, seek additional occupational hygiene advice.

PERSONAL PROTECTIVE EQUIPMENT

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

Respiratory protection : A gas and vapor filter respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

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- Hand protection** : Chemical resistant gloves are not usually required.
Select gloves based on the physical job requirements.
- Eye protection** : Eye protection is not usually required.
Follow any site specific eye protection policies.
- Skin and body protection** : No special protective equipment required.
Select skin and body protection based on the physical job requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form** : liquid
Colour : light yellow to brownish
- pH** : 4 - 8 at 1 % w/v
Boiling point/boiling range : > 143 °C
Flash point : 60 °C at 1,013 hPa

Autoignition temperature : 210 °C

- Oxidizing properties** : not oxidizing
- Explosive properties** : Not explosive
- Density** : 0.985 g/cm³ at 20 °C
- Miscibility** : Miscible
- Viscosity, dynamic** : 7.53 mPa.s at 20 °C
: 4.37 mPa.s at 40 °C
- Surface tension** : 30.3 mN/m at 25 °C

10. STABILITY AND REACTIVITY

- Hazardous decomposition products** : Combustion or thermal decomposition will evolve toxic and irritant vapors.
- Hazardous reactions** : None known.
Hazardous polymerization does not occur.
Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity** : LD50 female Rat, 2,574 mg/kg
GHS-Classification
Category 5

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- Acute inhalation toxicity** : LC50 Rat, > 5,294 mg/m³, 4 h
GHS-Classification
None
- Acute dermal toxicity** : LD50 male and female Rat, > 4,000 mg/kg
GHS-Classification
None
- Skin irritation** : Rabbit: Non-irritating
GHS-Classification
None
- Eye irritation** : Rabbit: Irritant
GHS-Classification
Category 2B
- Sensitisation** : guinea pig: Not a skin sensitizer in animal tests.
GHS-Classification
None
- Long term toxicity**
penconazole : Did not show carcinogenic, teratogenic or mutagenic effects in
animal experiments.

12. ECOLOGICAL INFORMATION**ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)****Stability in water**

- penconazole : Degradation half life: > 706 d
Penconazole is persistent in water.

Stability in soil

- penconazole : Degradation half life : 138 d
Penconazole is not persistent in soil.

Mobility

- penconazole : Penconazole has very high mobility in soil

Bioaccumulation

- penconazole : Penconazole does not bioaccumulate.

ECOTOXICITY EFFECTS**Toxicity to fish**

- : LC50 Oncorhynchus mykiss (rainbow trout), 6.8 mg/l , 96 h
GHS-Classification
Category 2

**Toxicity to daphnia and
other aquatic
invertebrates.**

- : EC50 Daphnia magna (Water flea), 36 mg/l , 48 h
GHS-Classification
Category 3

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Toxicity to algae : EC50 Scenedesmus subspicatus, 3.9 mg/l , 72 h
: ErC50 Scenedesmus subspicatus, 7.9 mg/l , 72 h
GHS-Classification
Category 2

13. DISPOSAL CONSIDERATIONS

Product : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

14. TRANSPORT INFORMATION**Land transport***ADR/ RID:*

UN-Number: 1993
Class: 3
Labels: 3
Packaging group III
Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(CYCLOHEXANONE AND PENCONAZOLE)

Environmentally hazardous substance: Environmentally hazardous substance

Sea transport*IMDG:*

UN-Number: 1993
Class: 3
Labels: 3
Packaging group: III
Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(CYCLOHEXANONE AND PENCONAZOLE)

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Marine pollutant :	Marine pollutant
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Air transport

IATA-DGR

UN-Number:	1993
Class:	3
Labels:	3
Packaging group:	III
Proper shipping name :	FLAMMABLE LIQUID, N.O.S. (CYCLOHEXANONE AND PENCONAZOLE)

15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol(s)	: Xi N	Irritant Dangerous for the environment
R-phrase(s)	: R36 R51/53	Irritating to eyes. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S 2 S13 S20/21 S35 S57	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. This material and its container must be disposed of in a safe way. Use appropriate container to avoid environmental contamination.
Note	: The preparation is classified as dangerous in accordance with Directive 1999/45/EC.	
Special labelling of certain preparations	: To avoid risks to man and the environment, comply with the instructions for use.	

GHS-Labeling

	Globally Harmonized System of Classification and Labelling of Chemicals (GHS), 2nd revised edition
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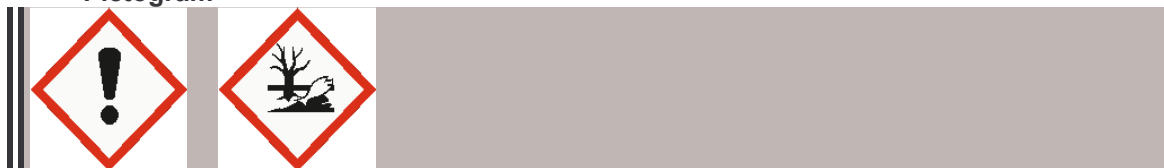
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Pictogram



Signal Word	:	Warning
Hazard Statements	:	H320 Causes eye irritation. H411 Toxic to aquatic life with long lasting effects.
Precautionary Statements	:	P102 Keep out of reach of children. P270 Do not eat, drink or smoke when using this product. P391 Collect spillage. P501 Dispose of contents/container to .?
Remarks	:	Classified using all GHS hazard classes and categories. Where the GHS contains options, the most conservative option has been chosen. Regional or national implementations of GHS may not implement all hazard classes and categories.

Hazardous components which must be listed on the label:

16. OTHER INFORMATION

Further information

Text of R-phrases mentioned in Section 3:

R10	Flammable.
R20	Harmful by inhalation.
R37/38	Irritating to respiratory system and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapours may cause drowsiness and dizziness.

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.

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