

TILT 250 EC

Version 3

Revision Date 19.03.2008

Print Date 19.03.2008

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

PRODUCT INFORMATION

Product name : TILT 250 EC
Design Code : A6097AF
Use : Fungicide
Company : Syngenta Crop Protection AG
 Postfach
 CH-4002 Basel
 Switzerland
Telephone : +41 61 323 11 11
Telefax : +41 61 323 12 12
Emergency telephone : +44 1484 538444
E-mail address : safetydatasheetcoordination@syngenta.com



Harmful



Dangerous for the environment

2. HAZARDS IDENTIFICATION

Irritating to eyes and skin.

Harmful: may cause lung damage if swallowed.

Vapours may cause drowsiness and dizziness.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-pharse(s)	Concentration
propiconazole	60207-90-1	262-104-4	Xn, N	R22 R43 R50/53	25.1 % W/W
solvent naphtha (petroleum), heavy arom.	64742-94-5	265-198-5	Xn, N	R51/53 R65 R66 R67	55 - 65 % W/W
poly(oxy-1,2-ethanediyl), alpha-9-octadecenyl-omega-hydroxy-, (Z)-	9004-98-2		Xn	R22 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

TILT 250 EC

Version 3

Revision Date 19.03.2008

Print Date 19.03.2008

benzenesulfonic acid, tetrapropylene-, calcium salt	11117-11-6	234-360-7	Xi	R36/38	0 - 0 % W/W
---	------------	-----------	----	--------	----------------

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

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 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: contains petroleum distillates and/or aromatic solvents.
- Medical advice** : There is no specific antidote available. Treat symptomatically.
Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

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.

TILT 250 EC

Version 3

Revision Date 19.03.2008

Print Date 19.03.2008

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.

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.

TILT 250 EC

Version 3

Revision Date 19.03.2008

Print Date 19.03.2008

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	Exposure limit(s)	Type of exposure limit	Source
propiconazole	8 mg/m ³	8 h TWA	SYNGENTA
solvent naphtha (petroleum), heavy arom.	100 mg/m ³	8 h TWA	SUPPLIER
1-propanol, 2-methyl-	1,600 ppm 50 ppm 100 ppm 50 ppm 100 ppm	15 min STEL 8 h TWA 8 h TWA	NIOSH SUVA SUVA ACGIH DFG

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 combination gas, vapor and particulate 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.

Hand protection : Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be changed when breakthrough is suspected. Suitable material:
Nitrile rubber

Skin and body protection : Assess the exposure and select chemical resistant clothing

TILT 250 EC

Version 3

Revision Date 19.03.2008

Print Date 19.03.2008

based on the potential for contact and the permeation / penetration characteristics of the clothing material.
Wash with soap and water after removing protective clothing.
Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.)
Wear as appropriate:
impervious protective suit

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid
Colour	: light yellow to dark yellow
pH	: 4 - 8 at 1 % w/v
Boiling point/boiling range	: > 170 °C
Flash point	: 60 °C at 770 mmHg Pensky-Martens c.c.
Oxidizing properties	: not oxidizing
Explosive properties	: Not explosive
Density	: 0.984 g/cm ³ at 20 °C
Miscibility	: Miscible
Viscosity, dynamic	: 5.0 mPa.s at 20 °C
	: 3.0 mPa.s at 40 °C
Surface tension	: 30.9 mN/m at 25 °C
Viscosity, kinematic	: 2.9 mm ² /s at 40 °C
	: 4.9 mm ² /s at 20 °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 male Rat, > 3,000 mg/kg GHS-Classification: Category 5
	: LD50 female Rat, > 2,000 - < 3,000 mg/kg GHS-Classification: Category 5

TILT 250 EC

Version 3

Revision Date 19.03.2008

Print Date 19.03.2008

Acute dermal toxicity	: LD50 Rat, > 4,000 mg/kg GHS-Classification: None
Skin irritation	: Rabbit: irritating GHS-Classification: Category 2
Eye irritation	: Rabbit: irritating GHS-Classification: Category 2A
Sensitisation	: Buehler Test guinea pig: not sensitizing GHS-Classification: None

Long term toxicity

Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

12. ECOLOGICAL INFORMATION**ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)**

Bioaccumulation	: Propiconazole has low to medium potential to bioaccumulate.
Stability in water	: Propiconazole is stable in water.
Stability in soil	: Propiconazole is not persistent in soil.
Mobility	: Propiconazole has low to medium mobility in soil.

ECOTOXICITY EFFECTS

Toxicity to fish	: LC50 <i>Cyprinus carpio</i> (Carp), 11.0 mg/l , 96 h GHS-Classification: Category 3
	: LC50 Bluegill sunfish, 6.7 mg/l , 96 h GHS-Classification: Category 2
	: LC50 <i>Oncorhynchus mykiss</i> (rainbow trout), 5.7 mg/l , 96 h GHS-Classification: Category 2

Toxicity to aquatic invertebrates	: EC50 <i>Daphnia magna</i> (Water flea), 6.9 mg/l , 48 h GHS-Classification: Category 2
--	--

Toxicity to algae	: ErC50 <i>Selenastrum capricornutum</i> (green algae), 17 mg/l , 72
--------------------------	--

TILT 250 EC

Version 3

Revision Date 19.03.2008

Print Date 19.03.2008

h
GHS-Classification:
Category 3

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 for local recycling or waste disposal.
Do not re-use empty containers.

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

UN-Number: 1993
Class: 3
Danger Label Number : 3
Packaging group III
Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(SOLVENT NAPHTHA)

Sea transport*IMDG:*

UN-Number: 1993
Class: 3
Danger Label Number : 3
Packaging group: III
Proper shipping name : FLAMMABLE LIQUID, N.O.S.
(SOLVENT NAPHTHA AND PROPICONAZOLE 25%)

Marine pollutant : Marine pollutant

TILT 250 EC

Version 3

Revision Date 19.03.2008

Print Date 19.03.2008

Air transport

IATA-DGR

UN-Number: 1993
 Class: 3
 Danger Label Number : 3
 Packaging group: III
 Proper shipping name : FLAMMABLE LIQUID, N.O.S.
 (SOLVENT NAPHTHA)

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- propiconazole

Symbol(s)	: Xn N	Harmful Dangerous for the environment
R-phrases(s)	: R36/38 R51/53 R65 R67	Irritating to eyes and skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness.
S-phrases(s)	: S 2 S13 S20/21 S35 S36/37 S46 S57 S62	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. Wear suitable protective clothing and gloves. If swallowed, seek medical advice immediately and show this container or label. Use appropriate container to avoid environmental contamination. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
Special labelling of certain preparations	:	To avoid risks to man and the environment, comply with the instructions for use.

TILT 250 EC

Version 3

Revision Date 19.03.2008

Print Date 19.03.2008

Contains propiconazole. May produce an allergic reaction.

Note : The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

16. OTHER INFORMATION**Further information**

Text of R-phrases mentioned in Section 3:

R10	Flammable.
R22	Harmful if swallowed.
R36/38	Irritating to eyes and skin.
R37/38	Irritating to respiratory system and skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
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.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
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.

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

Product names are a trademark or registered trademark of a Syngenta Group Company.
