

## Safety Data Sheet

Revision date: 24<sup>th</sup> July 2006

replaces all previous editions

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### DACONIL TURF

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

##### Identification of the substance or preparation

Tradename                DACONIL TURF  
Design Code             A7867A

##### Company identification

Company                 Syngenta Crop Protection UK Ltd  
                              Whittlesford, CAMBRIDGE, CB2 4QT  
Phone                    (01223) 833621  
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Website                 www.syngenta-crop.co.uk  
Emergency Phone       **+44 (0) 1484 538444 (24h)**

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#### 2. COMPOSITION / INFORMATION ON INGREDIENTS

EC-No. : 217-588-1 Chlorothalonil

EC-No. : 200-338-0 Propane-1,2-diol (Propylene glycol or 1,2-propanediol)

CAS-No.	Hazardous ingredients	Hazard symbols	Risk phrases (R)	% w/w
1897-45-6	Chlorothalonil	T+, N	26, 37, 40, 41, 43, 50/53	40
57-55-6	Propane-1,2-diol	-	-	5 to 10

For the full text of the R phrases mentioned in this Section, see Section 16.

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#### 3. HAZARDS IDENTIFICATION

Harmful by inhalation. Irritating to eyes and respiratory system. Limited evidence of a carcinogenic effect. May cause sensitisation by skin contact. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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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 centre or physician, or going for treatment.

**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.

**Skin contact:** Take off immediately all contaminated clothing. Wash skin immediately with water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

**Inhalation:** Remove 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.

**Ingestion:** If swallowed seek medical advice immediately and show the container, label or this Data Sheet, if possible. Do not induce vomiting.

**Medical advice:** There is no specific antidote available. Treat symptomatically.

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#### 5. FIRE FIGHTING MEASURES

**Extinguishing media- small fires:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Extinguishing media - large fires:** Use alcohol-resistant foam or water spray.

**Extinguishing media which must 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.

**Special protective equipment for fire-fighters:** In the event of fire, wear 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.

**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 and collect spillage 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

**Advice on safe handling:** No special technical protective measures required. No special handling advice required. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. For personal protection see section 8.

**Requirements for storage areas and containers:** No special storage conditions required. 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 feeding stuffs.

**Storage Life:** 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

### Exposure Controls

#### Occupational Exposure Limits - Hazardous ingredients

Propane-1,2-diol (Propylene glycol), HSE/EH40/2002, LTEL, 8 hr TWA Total (vapour & particulates) 150 ppm 474 mg/m<sup>3</sup>. Particulates: 10 mg/m<sup>3</sup>.

Chlorothalonil, Syngenta Standard; 8 hr TWA 0.1 mg/m<sup>3</sup>

### 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 vapours 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 Protection

When using this product refer to the label for details. In all other cases, use the following 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, vapour 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.

**Eye protection:** If eye contact is possible, use tight-fitting chemical safety goggles.

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

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Suspension
Colour:	Off-white to light brown.
Odour:	Pungent, weak.
Boiling point:	> 100 °C
Melting point:	-5 °C
Explosive properties:	Not explosive.
Density:	1.24 g/ml
Solubility:	Dispersible in/with water.
pH-value (quant.):	6 to 9
Oxidizing properties:	Not oxidising

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## 10. STABILITY AND REACTIVITY

**Hazardous decomposition products:** Combustion or thermal decomposition will evolve toxic and irritant vapours.

**Hazardous reactions:** None known. Hazardous polymerisation does not occur. Stable under normal conditions.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute Oral LD50 rat:</b>	4,200 mg/kg.
<b>Acute Dermal LD50 rabbit:</b>	> 20,000 mg/kg.
<b>Acute Inhalation LC50 rat :</b>	> 1.96 mg/l 4 hours
<b>Eye Irritation rabbit:</b>	Moderately irritant.
<b>Skin Irritation rabbit:</b>	Slight.

### Long term toxicity

Did not show mutagenic effects in animal experiments. Chlorothalonil is reported as a high dose threshold carcinogen in rats and mice. Did not show reproductive toxicity effects in animal experiments. Did not show teratogenic effects in animal experiments. This is not considered to be a risk to man when handled and used as directed on the label. This information refers to Chlorothalonil.

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## 12. ECOLOGICAL INFORMATION

### Persistence and Degradation

Chlorothalonil has low potential for bioaccumulation, is not persistent in soil or water and has low to slight mobility in soil.

### Ecotoxicity

Toxicity to fish, LC50 96 hours rainbow trout: 0.195 mg/l

Toxicity to aquatic invertebrates, EC50 24 hours *Daphnia magna* (water flea): 0.882 mg/l

Toxicity to algae, ErC50 72 hours *Pseudokirchneriella subcapitata* (green algae): 0.521 mg/l

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## 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.

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## 14. TRANSPORT INFORMATION

### Road transport ADR/RID

UN Number:	UN3082
Class-primary:	9 Miscellaneous Dangerous Goods
UN Packaging Group:	III
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (CHLOROTHALONIL)

**Maritime transport IMDG**

UN Number: UN3082  
Class-primary: 9 Miscellaneous Dangerous Goods  
UN Packaging Group: III  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S., (CHLOROTHALONIL)  
Marine pollutant: Yes

**Air transport ICAO/IATA**

Not dangerous goods

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**15. REGULATORY INFORMATION**

<b>Hazard Symbols / Classifications</b>	N	Dangerous for the environment.
<b>Risk phrases (R)</b>	Xn	Harmful.
	20	Harmful by inhalation.
	36/37	Irritating to the respiratory system and eyes.
	40	Limited evidence of a carcinogenic effect.
	43	May cause sensitisation by skin contact.
<b>Safety phrases (S)</b>	50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	2	Keep out of the reach of children.
	13	Keep away from food, drink and animal feeding stuffs.
	20/21	When using do not eat, drink or smoke.
	35	This material and its container must be disposed of in a safe way.
	36/37	Wear suitable protective clothing and gloves.
<b>Special label</b>	57	Use appropriate containment to avoid environmental contamination.
		To avoid risks to man and the environment, comply with the instructions for use.

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

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## 16. OTHER INFORMATION

Use: A broad spectrum fungicide.

Always read the label. Use pesticides safely.

Based upon SDS version 7, release date 10.09.04. DPD compliant.

New Persistence and Degradation statement in section 12, plus minor updated to section 2 and removal of 50% from PSN in section 14.

Text of R phrases mentioned in Section 2:

**R26** Very toxic by inhalation.

**R37** Irritating to respiratory system.

**R40** Limited evidence of a carcinogenic effect.

**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.

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.