

F U N G I C I D E

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

Tradename **ALTO ELITE**
 Design Code **A8384A**
 AGI Code **20373/162421**

COMPANY/UNDERTAKING IDENTIFICATION

Company Syngenta Crop Protection UK Ltd
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2. COMPOSITION/INFORMATION ON INGREDIENTS**CHEMICAL CHARACTERISTIC**

Formulation type Suspension concentrate
 Active ingredient(s) 4% w/v cyproconazole
 37.5% w/v chlorothalonil EC_No 217-588-1

HAZARDOUS COMPONENTS

CAS-NO.	CHEMICAL NAME	CONCENTRATION (% w/w)	HAZARD SYMBOLS	RISK PHRASES
1897-45-6	chlorothalonil	31	T+, N	26, 37, 40, 41,43, 50/53
94361-06-5	cyproconazole	3.3	N, Xn	22, 50/53, 63

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

3. HAZARDS IDENTIFICATION

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

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.

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.

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 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.

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

HANDLING

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.

STORAGE

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 feed.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Internal exposure limit: SIEL (Syngenta internal exposure level):

Cyproconazole 8hr TWA: 0.5 mg/m³

Chlorothalonil 8hr TWA: 0.1 mg/m³

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. Seek additional occupational hygiene advice.

PERSONAL PROTECTION EQUIPMENT

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 particulate 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.

Eye protection: If eye contact is possible, use tight-fitting chemical safety goggles and a face shield.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	Grey to brown
Odour:	Weak
Melting Point/Range:	ca -5°C
Explosive Properties:	Not explosive
Density:	ca 1.2 g/cm ³ (20°C)
Surface Tension:	58.8–60.4 mN/m (5.0 g/l; Suspension in distilled water; 20°C)
Water Solubility:	Miscible
Dynamic Viscosity:	73.2–177 mPa.s (50–250 rps; 20°C)
Dynamic Viscosity:	58.1–159 mPa.s (50–250 rps; 40°C)

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

Acute Oral Toxicity LD₅₀: >5000 mg/kg (rat)

Acute Dermal Toxicity LD₅₀: >2000 mg/kg (rat)

Acute Skin Irritation: Non irritant (rabbit)

Acute Eye Irritation: Highly irritation (rabbit)

Skin Sensitisation: Sensitising (guinea pig)

LONG-TERM TOXICITY

Did not show mutagenic effects in animal experiments. Chlorothalonil causes kidney tumours in rats and mice via a non-genotoxic mode of action secondary to target organ toxicity. 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.

12. ECOLOGICAL INFORMATION

ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)

Bioaccumulation: Cyproconazole does not bioaccumulate. Chlorothalonil has low potential for bioaccumulation.

Stability in water: Cyproconazole is not persistent in water. Chlorothalonil is not persistent in water.

Stability in soil: Cyproconazole is moderately to very persistent in soil and chlorothalonil has low persistence in soil.

Mobility: Cyproconazole has low to medium mobility in soil. Chlorothalonil has low to slight mobility in soil.

Acute Toxicity to Fish LC₅₀: 0.16 mg/l (*Salmo trutta* (trout); 96 h) OECD 203

LC₅₀: 0.35 mg/l (*Cyprinus carpio* (Common carp); 96 h) OECD 203

Growth Inhibition, Algae EC₅₀: 3.59 mg/l (*Selenastrum capricornutum* (green algae)) OECD 201

Toxicity to Aquatic Invertebrates

EC₅₀: 0.14 mg/l (*Daphnia magna* (water flea); 48 h) OECD 202

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

Special Information: Use unbreakable containers, make sure they cannot fall, and label in accordance with regulations.

**RAIL/ROAD/AIR
(RID/ADR/IATA)**

Class	UN number	Packaging group
9	3082	III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (CHLOROTHALONIL)

SEA (IMDG-CODE)

Class	UN number	Packaging group
9	3082	III

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (CHLOROTHALONIL 37.5%)

Marine pollutant: Yes

15. REGULATORY INFORMATION

Classifications/ Hazard symbols	Xn N	HARMFUL DANGEROUS FOR THE ENVIRONMENT
Risk phrases (R)	20	Harmful by inhalation.
	37	Irritating to the respiratory system.
	40	Limited evidence of a carcinogenic effect.
	41	Risk of serious damage to eyes.
	43	May cause sensitisation by skin contact.
	50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases (S)	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.
	26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	35	This material and its container must be disposed of in a safe way.
	36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
	45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
	57	Use appropriate containment to avoid environmental contamination.
Special label		To avoid risks to man and the environment, comply with the instructions for use.

16. OTHER INFORMATION

Based upon SDS release date 12/09/2005, version 6 issued 15/11/2005, with local amendments.

Always read the label. Use pesticides safely.

Product approval number: MAFF 08467.

Risk phrases from section 2:

R22 Harmful if swallowed

R26 Very toxic by inhalation

R37 Irritating to the 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

R63 Possible risk of harm to the unborn child

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.