

HERBICIDE

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

IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

Tradename **AXIAL**
 Design Code **A12303C**
 Sales Code **27517**

COMPANY/UNDERTAKING IDENTIFICATION

Company Syngenta Crop Protection UK Ltd
 CPC4, Capital Park, Fulbourn, Cambridge CB21 5XE
 Phone (01223) 883400
 Fax (01223) 882195
 Website www.syngenta-crop.co.uk

Emergency Phone +44 (0)1484 538444 (24h)

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS

CAS NO.	EC-NO.	CHEMICAL NAME	CONCENTRATION (%W/W)	HAZARD SYMBOLS	RISK PHRASES (R)
243973-20-8	–	pinoxaden	9.7	Xn	20, 36/37, 52/53
99607-70-2	–	cloquintocet-mexyl	2.4	N, Xi	43, 50/53
99734-09-5	–	poly(oxy-1,2-ethanediyl), alphaphenyl-omegahy droxy-, styrenated	1–5	N	51/53
97-99-4	202-625-6	tetrahydrofur furyl alcohol	20–40	Xi	36
64742-94-5	265-198-5	solvent naphtha (petroleum), highly arom	40–50	N, Xn	36/37/38, 51/53, 65, 66

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

3. HAZARDS IDENTIFICATION

Irritating to skin and eyes. 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: 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.

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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: 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: 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.

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 feeding stuffs.

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)	Value type	Source
cloquintocet-mexyl	10 mg/m ³	8 h TWA	SYNGENTA
solvent naphtha (petroleum), highly arom.	20 ppm, 100 mg/m ³	8 h TWA	SUPPLIER

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 PROTECTIVE 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: No personal respiratory protective equipment normally required. A particulate filter respirator may be necessary until effective technical measures are installed.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Clear liquid
Colour:	Yellow to orange
Odour:	Aromatic
pH:	3–7 (1% w/v)
Flash-Point:	79°C (751 mmHg)
Autoignition Temperature:	305°C
Oxidising Properties:	Not oxidising
Explosive Properties:	Not explosive
Density:	1.03 g/ml (20°C)
Miscibility:	Miscible
Dynamic Viscosity:	8.34 mPa.s (20°C)

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Dynamic Viscosity: 4.41 mPa.s (40°C)
 Surface Tension: 36.6 mN/m (undiluted; 25°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: 3129 mg/kg (female rat)
Acute Dermal Toxicity LD₅₀: >2000 mg/kg (male and female rat)
Acute Inhalation Toxicity; 4 h LC₅₀: >5.0 mg/l (male and female rat)
Skin Irritation: Moderately Irritating (rabbit)
Eye Irritation: Moderately Irritating (rabbit)
Skin Sensitisation: Not sensitising (guinea pig)

LONG-TERM TOXICITY: Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

12. ECOLOGICAL INFORMATION

ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)

Bioaccumulation: Cloquintocet-mexyl does not bioaccumulate. Pinoxaden has low potential for bioaccumulation.

Stability in water: Cloquintocet-mexyl is not persistent in water. Pinoxaden is not persistent in water.

Stability in soil: Cloquintocet-mexyl is not persistent in soil. Pinoxaden has low persistence in soil.

Mobility: Cloquintocet-mexyl is immobile in soil. Pinoxaden has medium mobility in soil.

ECOTOXICITY EFFECTS

Acute Toxicity to Fish LC₅₀: 5.6 mg/l (*Oncorhynchus mykiss*, (Rainbow trout), 96 h)

Growth Inhibition, Algae EbC₅₀: 4.6 mg/l (*Pseudokirchneriella subcapitata* (green algae), 72 h)

Growth Inhibition, Algae ErC₅₀: 9.7 mg/l (*Pseudokirchneriella subcapitata* (green algae), 72 h)

Toxicity to Aquatic Invertebrates EC₅₀: 3.2 mg/l (*Daphnia magna* (Water flea), 48 h)

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

RAIL/ROAD/SEA/AIR (RID/ADR/IMDG/ICAQ/IATA)	Class 9	UN Number 3082	Packaging Group III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (SOLVENT NAPHTHA)		
Marine pollutant:	Yes		

15. REGULATORY INFORMATION

Hazard Symbol/ Classifications	N Xi	DANGEROUS FOR THE ENVIRONMENT IRRITANT
Risk phrases (R)	36/38 51/53	Irritating to eyes and skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases (S)	2 13 20/21 35 36/37/39 57	Keep out of reach of children. Keep away from food, drink and animal feeding stuffs. 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, gloves and eye/face protection. 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

Always read the label. Use pesticides safely.

Based upon SDS issue date 09.11.2006, version 4. DPD compliant.

Update: Minor changes to section 2 & 16: R phrases, section 5 PPE and addition of autoignition temperature in section 9.

Product approval number: MAPP 12521

Text of R phrases mentioned in Section 2:

R20 Harmful by inhalation.

R36 Irritating to the eyes.

R36/37 Irritating to eyes and respiratory system.

R36/36/38 Irritating to eyes, respiratory system and skin.

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.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

The information contained herein is based on the present state of our knowledge as is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.