

CENTRAL 500 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CENTRAL 500 SC
Other identifier: Azoxystrobin Cymoxanil 500 SC
Recommended use: Fungicide
Restrictions on use: Agriculture

Supplier: Villa Crop Protection (Pty) Ltd.
Co. Reg. No.: 1992/002474/07

PO Box 801,
Kempton Park, 1619,
South Africa

Telephone: (011) 396 2233

Fax: (011) 396 4666

Website: www.villacrop.co.za

Emergency telephone numbers:

24 Hr Transport / Spill emergency no:

(Hazcall24) +27 86 044 4411

(Client: Villa Crop Protection)

Griffon Poison Information Centre +27 82 446 8946

(Client: Villa Crop Protection)

Poisoning Emergency telephone numbers:

Griffon Poison Information Centre +27 82 446 8946

Poisons Information Centre +27 861 555 777

2. HAZARDS IDENTIFICATION

| UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008 | | |
|--|------------------------------|--------------|
| Hazard classes | Hazard categories | H-statements |
| Health | | |
| Oral | Acute Tox. 5 | H303 |
| Dermal | Acute Tox. 5 Skin Sens. 1 | H313 H317 |
| Inhalation | Acute Tox. 4 | H332 |
| Reproductive Toxicity | Repr. 2 | H361fd |
| Specific Target Organ Toxicity - Repeated Exposure | STOT RE 2 | H373 |
| Environment | | |
| Aquatic chronic | Aquatic chronic 1 | H410 |

The most important adverse effects: None known.

Physiochemical effects: None known.

Human health effects:

May be harmful if swallowed. (Acute Tox. 5)

May be harmful in contact with skin. (Acute Tox. 5)

Harmful if inhaled. (Acute Tox.4)

May cause an allergic reaction. (Skin sens. 1)

Suspected of damaging fertility or the unborn child.

(Repr. 2)

May cause damage to organs (blood, thymus) through prolonged or repeated exposure. (STOT RE 2)

Label elements:



Signal word: WARNING.

Hazard statements:

H303: May be harmful if swallowed.

H313: May be harmful if in contact with skin.

H317: May cause an allergic skin reaction.

H332: Harmful if inhaled.

H361: Suspected of damaging fertility and the unborn child.

H373: May cause damage to organs (blood and thymus) through prolonged or repeated exposure.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P203: Obtain, read and follow all safety instructions before use.

P260: Do not breathe mist and spray.

P261: Avoid breathing dust, fumes, mists, gas, vapours or spray.

P271: Use only outdoors in a well-ventilated area.

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release into the environment.

P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.

P301+P317: IF SWALLOWED: Get medical help.

P302+P317: IF ON SKIN: Get medical help.

P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P318: IF exposed or concerned, get medical advice.

P319: Get medical help if you feel unwell.

P333+P317: If skin irritation or rash occurs: Get medical help.

P391: Collect spillage.

P405: Store locked up.

P501: Dispose of contents/container to suitable landfill in accordance with local regulations.

Special labelling of certain mixtures: None known.

Other hazards: None known.

Toxicity:

Classification according to GHS: Category 4

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

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Composition:

| Chemical Name | CAS | Conc. (m/v%) | Classification EC 1272/2008 |
|---------------------------------------|-------------------------|--------------|---|
| Cymoxanil | 57966-95-7 | 31.68 % | Acute Tox. 3 (H302) Skin Sens. 1 (H317) Repr. 2 (H361fd) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) |
| Azoxystrobin | 131860-33-8 | 13.65 % | Acute Tox. 3 (H331) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) |
| Tristyrylphenol ethoxy sulphate | 99734-09-5 | <10% | Aquatic Chronic 3 (H412) |
| MEG | 107-21-1 | <10% | Acute Tox. 4 (H302) |
| Citric Acid | 77-92-9 | < 10 % | Skin irrit. 2 (H319) STOT SE 3 (H335) |
| 1, 2-benzisothiazolin-3-one (Biocide) | 2634-33-5 and 1310-73-2 | <0.5% | Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Skin Corr. 1A (H314) |

4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. Immediately consult a doctor.

Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. If breathing has stopped, perform artificial respiration, if breathing is laboured administer oxygen. Only qualified personnel should administer oxygen. **Seek medical attention immediately.**

Skin: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **If irritation persists, obtain medical attention.**

Eyes: Immediately flush eyes with clean water for at least 15-20 minutes. Lift eyelid (s) to facilitate irrigation. If

present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention immediately.**

Ingestion: **Seek medical attention immediately.** Do NOT induce vomiting unless instructed to do so by a poison control centre or doctor. If the person is alert, rinse mouth thoroughly with water. Do not give anything by mouth to an unconscious person.

Anticipated acute effects: May be harmful if swallowed. May be harmful in contact with skin. Harmful if inhaled.

Anticipated delayed effects: Suspected of damaging fertility or the unborn child. May cause damage to organs (Blood and thymus) through prolonged or repeated exposure.

Most important symptoms/effects: None known.

Advice to physician: There is no specific antidote available. Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use water spray, foam or carbon dioxide.

Unsuitable Extinguishing Media: High volume water jet.

Specific hazards: Combustion may result in the release of the following gases: carbon dioxide and oxides of nitrogen.

Special Fire Fighting Procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Contain fire control agents and wastewater for later disposal. Avoid pollution of waterways by run-off from the site.

Personal protective equipment: Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with eyes and skin. Do not breathe in fumes. Ventilate area of spill or leak, especially in contained areas.

Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

Emergency procedures: Alert firefighting personnel, evacuate unprotected personnel and animals.

Environmental Precautions: Prevent spilled product from entering sewers, waterways or ground water as the product is classified to be very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic

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environment. Any spillages or uncontrolled discharges into water courses should be immediately reported to the police and the Department of Water/Environmental Affairs.

Methods and Materials for Containment: Prevent material from spreading by diking area in with sand, earth, or vermiculite.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: May be harmful if swallowed. May be harmful if in contact with skin. Harmful if inhaled. Ensure adequate ventilation during handling and use. Avoid contact with skin and eyes. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly closed when not in use. In case of contact with the product refer to First Aid Measures – Section 4.

General occupational hygiene: Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used again.

Storage:

Conditions for safe storage: Keep out of reach of unauthorised persons, children and animals. Store in original, labelled container kept tightly closed in an isolated, dry, cool and well-ventilated area. Avoid excess heat. Keep out of direct sunlight. Avoid cross contamination with other pesticides and fertilisers. Local regulations should be complied with.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

| Components | Exposure limits | Type of exposure limit | Source |
|---|---------------------|------------------------|--|
| Azoxystrobin | 2 mg/m ³ | TWA (8h) | OES |
| 1,2-benzisothiazolin-3-one (Sodium hydroxide) | 2 mg/m ³ | TWA STEL | www.ohsa.gov |

Engineering Controls:

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

Personal Protective Equipment:

Respiratory Protection: If inhalation is likely to occur (airborne concentrations exceed exposure limits), use a NIOSH approved air-purifying respirator.

Hand Protection: The employee must wear appropriate chemically resistant gloves, e.g. nitrile rubber gloves, to prevent contact with this mixture.

Eye Protection: Wear a face shield when handling the concentrate and when applying the product. The use of safety goggles is recommended if a face shield is not used. Contact lenses are not protective devices.

Skin and Body Protection: Employee must wear appropriate impervious clothing and equipment (according to exposure level) to prevent repeated or prolonged skin contact with this mixture.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this mixture; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to cream viscous liquid.

Odour: Characteristic.

pH (1% aqueous dilution): 3.5 – 8.0.

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not available.

Flammability: Not available.

Upper/lower explosion limits: Not available.

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Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density/Relative density: 1.139 g/ℓ.

Solubility: Suspends in water.

n-octanol/water partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: 600 – 1400cP.

10. STABILITY AND REACTIVITY

Chemical Stability: Product is stable at ambient temperature and pressure, under normal storage and handling conditions.

Reactivity: None known.

Possibility of Hazardous Reactions: None Known.

Conditions to Avoid: Avoid extreme heat and exposure to flames or direct sunlight.

Incompatible Materials: None known.

Hazardous Decomposition Products: Combustion may release toxic and irritant vapours.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS:

Oral LD₅₀ 2301.42 mg/kg

Dermal LD₅₀ 4311.54 mg/kg

Inhalation LC₅₀ (4 h) 3.84 mg/ℓ

Skin Irritation/Corrosion: Not classified.

Eye Damage/Irritation: Not classified.

Skin Sensitization: May cause an allergic reaction.

Respiratory Sensitization: Not classified.

Reproductive cell mutagenicity: Not available.

Carcinogenicity: Not classified.

Reproductive toxicity: Suspected of damaging fertility or the unborn child.

Specific target organ toxicity – single exposure: Not classified.

Specific target organ toxicity – repeated exposure: May cause damage to blood and thymus through prolonged or repeated exposure.

Aspiration hazard: Not available.

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS:

Inhalation: Harmful if inhaled.

Ingestion: May be harmful if swallowed.

Skin contact: May be harmful in contact with skin. May cause an allergic reaction.

12. ECOLOGICAL INFORMATION

This product is a marine pollutant.

ECOTOXICITY DATA (based on active ingredients):

Fish:

Azoxystrobin

| | | |
|------------------------|-------------------|-----------|
| LC ₅₀ (96h) | Bluegill sunfish | 1.1 mg/ℓ |
| | Rainbow trout | 0.47 mg/ℓ |
| | Carp | 1.6 mg/ℓ |
| | Sheepshead minnow | 0.66 mg/ℓ |

Cymoxanil

| | | |
|------------------------|-------------------|------------|
| LC ₅₀ (96h) | Rainbow trout | 61 mg/ℓ |
| | Bluegill sunfish | 29 mg/ℓ |
| | Common carp | 91 mg/ℓ |
| | Sheepshead minnow | >47.5 mg/ℓ |

Daphnia:

Azoxystrobin

| | | |
|------------------------|--|----------|
| EC ₅₀ (48h) | | 0.28 g/ℓ |
|------------------------|--|----------|

Cymoxanil

| | | |
|-------------------------|--|---------|
| LC ₅₀ (48h): | | 27 mg/ℓ |
|-------------------------|--|---------|

Algae:

Azoxystrobin

| | | |
|------------------------|-----------------------------|------------|
| EC ₅₀ (72h) | <i>P. subcapitata</i> | 0.18 mg/ℓ |
| | <i>Navicula pelliculosa</i> | 0.028 mg/ℓ |

Cymoxanil

| | | |
|------------------------|-------------------------|-----------|
| EC ₅₀ (72h) | <i>S. capricornutum</i> | 1.21 mg/ℓ |
|------------------------|-------------------------|-----------|

Birds:

Azoxystrobin

| | | |
|----------------------------|--------------------------------|-------------|
| LD ₅₀ | Bobwhite quail & Mallard ducks | >2000 mg/kg |
| LC ₅₀ (5d) diet | Bobwhite quail & Mallard ducks | >5200 mg/kg |

Cymoxanil

| | | |
|------------------------|------------------------------------|------------------|
| LD ₅₀ | Bobwhite quail & Mallard ducks | >2250 mg/kg |
| LC ₅₀ (8 d) | for bobwhite quail & Mallard ducks | >5620 mg/kg diet |

Bees:

Azoxystrobin

| | | |
|---------------------------------|--|-------------|
| LD ₅₀ (48h) (oral) | | >25 µg/bee |
| D ₅₀ (48h) (contact) | | >200 µg/bee |

Cymoxanil

| | | |
|----------------------------|--|------------|
| LD ₅₀ (contact) | | >25 µg/bee |
|----------------------------|--|------------|

Worms:

Azoxystrobin

| | | |
|------------------------|--|-----------|
| LC ₅₀ (14d) | | 283 mg/kg |
|------------------------|--|-----------|

Cymoxanil

| | | |
|------------------------|--|-------------|
| LC ₅₀ (14d) | | >2208 mg/kg |
|------------------------|--|-------------|

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ENVIRONMENTAL EFFECTS:

Plants:

Azoxystrobin

In wheat, grapes and peanuts, metabolism was extensive, but parent Azoxystrobin was the only major (>10%) residue. Metabolism pathways were similar in all three crops.

Cymoxanil

Degraded to glycine with subsequent incorporation into natural products (proteins and starch).

Persistence and degradability:

Azoxystrobin

Average DT₅₀ (lab.) of Azoxystrobin is 8 weeks (20 °C, pF 2). In the dark, six identified metabolites were formed. Dissipation in the field is faster, average DT₅₀ is 2 weeks, DT₉₀ 41 weeks. On soil, photolysis DT₅₀ is 11 days. Azoxystrobin and its metabolites have low to moderate mobility in soil; typical K_{oc} for Azoxystrobin is c. 500. Field dissipation studies showed that neither Azoxystrobin nor its major metabolites were typically found in soil below the top 15 cm. Azoxystrobin should photodegrade in water (DT₅₀ 11 – 17 days).

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In lab. soils, DT₅₀ 0.75-1.6 d (5 soils, pH range 5.7-7.8, o.m. 0.8-3.5%). In the field, DT₅₀ (bare soil) 0.9-9 d. In aquatic studies, DT₅₀ <1 d. K_{oc} 38-237. Cymoxanil is mobile, adsorption Freundlich K 0.29 to 2.86 in four soil types.

Bio-accumulative Potential: Not determined.

Mobility in soil: Not determined.

Other adverse effects: Not determined.

13. DISPOSAL CONSIDERATIONS

Waste: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Waste should only be handled by licensed facilities. Comply with local legislation applying to waste disposal.

Container: Emptied containers retain product residues. Do not re-use the empty container for any other purpose.

TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS:

Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler www.croplife.co.za. Do not bury, burn, or donate the container to any other parties that may use it as a

container for food or beverages. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN NUMBER: 3082

Road Transport ADR/RID:

Class: 9

Packaging group: III

Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S.

(Azoxystrobin 150 g/l + Cymoxanil 350 g/l)

Maritime Transport IMDG/IMO:

Class: 9

Packaging group: III

Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S.

(Azoxystrobin 150 g/l + Cymoxanil 350 g/l)

Marine Pollutant: Yes

Air Transport IATA/ICAO:

Class: 9

Packaging group: III

Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S.

(Azoxystrobin 150 g/l + Cymoxanil 350 g/l)

Special/Environmental Precautions: Refer to sections 4 to 8 of this document.

Transport in bulk (according to MARPOL 73/78, Annex II and the IBC code): Not applicable.

15. REGULATORY INFORMATION

Safety, health and environmental regulations / legislation for the mixture:

OHSA 1993 Regulations for Hazardous Chemical Substances.

Relevant information regarding restrictions: None.

EU regulation: Regulation EC1272/2008 (EU-GHS/CLP)

Other national regulations: None.

Chemical Safety Assessment carried out? No

16. OTHER INFORMATION

Packaging: Packed in 1, 2, 5, 10, 20, 25 & 50 litres plastic containers, labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

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H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H331: Toxic if inhaled.

H335: May cause respiratory irritation.

Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

END OF DOCUMENT

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For detailed information on revisions, contact the Registration holder.