



AGRICULTURAL FUNGICIDE

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1. Identification of the substance/mixture and of the company/undertaking

Product Name: METROPOL® SC, COSMOPOL® SC, METROPOL® 32.5 SC, COSMOPOL® 32.5 SC, COSMOZOL® 32.5 SC

Formulation: Suspension Concentrate

Active ingredients:

- Azoxystrobin 200 g/L
IUPAC Name: methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate
- Flutriafol 125 g/L
IUPAC Name: (RS)-2,4'-difluoro- α -(1H-1,2,4-triazol-1-ylmethyl)benzhydryl alcohol

Company:

Hanseandina Deutschland GmbH

Am Ladenzentrum 2

D-21465 Reinbek, Germany

Tel: +49 40 3074 4540

Email: hde@hanseandina.com

URL: www.hanseandina.com

Distributor in Australia:

Sumitomo Chemical Australia Pty Ltd

Level 5, 51 Rawson Street,

EPPING, NSW 2121

(02) 8752 9000 (02) 8752 9099

reception@sumitomo-chem.com.au



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2. HAZARDS IDENTIFICATION

CAUTION: Harmful if swallowed. Use appropriate procedures to prevent opportunities for direct contact with the skin or eyes and to prevent inhalation.



POTENTIAL HEALTH EFFECTS

Acute Toxicity (Primary Routes of Exposure)

Signs and Symptoms of Systemic Effects: The acute toxicity of this product is relatively low; transient, minimal signs of toxicity were observed in animals at high oral doses.

Acute Eye Contact: This product is not expected to cause eye irritation.

Acute Skin Contact: This product is not expected to cause skin irritation.

This product is not expected to cause allergic skin reactions.

This product is minimally toxic when absorbed through the skin.

Acute Ingestion: This product is minimally toxic when ingested.

Acute Inhalation: Based on an evaluation of the ingredients and/or similar products, this product may be minimally toxic when inhaled.

Exposure to high concentrations in the air may result in respiratory irritation. Signs and symptoms may include, but not be limited to, nasal discharge, sore throat, coughing and difficulty in breathing.

Hazard statement(s)

H302 Harmful if swallowed

H312 Harmful in contact with skin

H332 Harmful if inhaled

H412 Harmful to aquatic life with long lasting effects

Safety Phrases:

S2 Keep out of reach of children.

S13 Keep away from food, drink and animal feeding stuffs.

S23 Do not breathe vapour or spray.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S60 This material and its container must be disposed of as hazardous waste.



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3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance	CAS Number	OSHA PEL	Concentration
Azoxystrobin	131860-33-8	ND	200 g/L
Flutriafol	76674-21-0	ND	125 g/L
Inerts	/	/	Up to 1 L

4. FIRST AID MEASURES

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: Treatment is symptomatic.

5. FIREFIGHTING 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.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

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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.

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 protective measures against fire required. Avoid contact with skin and eyes. When using, do not eat, drink or smoke.

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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: 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.

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,

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material and manufacturer. Gloves should be changed when breakthrough is suspected. Suitable material: nitrile rubber.

Eye protection: Eye protection is not usually required. Follow any site specific eye protection policies.

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

Appearance: White liquid
Suspensibility: % ≥ 90
pH: 5.0 - 8.0
Wet sieve test: % ≥ 98
Foam persistence: ≤ 25 (after 1 min, ml)

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: 5000 mg/kg GHS Category 4



Acute dermal toxicity: > 4000 mg/kg GHS Category 4
Acute Inhalation toxicity: 1,1mg/L air – GHS Category 4





Dermal Irritation: moderate irritant
Eye irritation: moderate irritant
Skin sensitization: Not a sensitizer to guinea pigs

Azoxystrobin Technical

Acute:

Acute oral LD50 for male and female rats and mice > 5000 mg / kg. Category 4

Dermal LD50 for rats > 2000 mg / kg. Category 4

Ocular: mild skin irritation (rabbits).

It is not a skin sensitizer (guinea pigs).

Inhalation LC50 (4 h, nasal route only) for male rats 0.96, female rats 0.69 mg / L. Category 4

Chronic:

NOEL (2 years) for rats 18 mg / kg b.w. every day. ADI of 0.1 mg / kg b.w. (EU), 0.18 mg / kg b.w. (USA) Other non-genotoxic, carcinogenic or neurotoxic, Azoxystrobin has no effect on fertility or on fetal or infant development.

Technical flutriafol

Acute oral LD50 for male rats 1140, female rats 1480 mg / kg. Category 4

Acute percutaneous LD50 for rats > 1000, rabbits > 2000 mg / kg. Category 4

Slight eye irritant; non-irritating to the skin (rabbits).

It is not a skin sensitizer. Inhalation LC50 (4 h) for rats > 3.5 mg / l. Category 4

Chronic: NOEL in 90 feeding trials of rats that received 2 mg / kg in the diet, and dogs treated with 5 mg / kg / day did not show negative effects. Non-teratogenic in rats and rabbits. Other in vivo studies were non-cytogenetic in. Not mutagenic in the Ames test.

12. ECOLOGICAL INFORMATION

ECOLOGICAL TOXICITY OF FLUTRIAFOL TECHNICAL



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Birds Acute oral LD₅₀ for female mallard ducks >5000 mg/kg. Dietary LC₅₀ (5 d) for mallard ducks 3940, Japanese quail 6350 mg/kg.

Fish LC₅₀ (96 h) for rainbow trout 61, mirror carp 77 mg/l. NOEC 6.2 mg/l.

Daphnia LC₅₀ (48 h) 78 mg/l.

Bees Low toxicity to honeybees. Acute oral LD₅₀ >5 µg/bee.

Worms LC₅₀ (14 d) >1000 mg/kg.

ECOLOGICAL TOXICITY OF AZOXYSTROBIN TECHNICAL

Birds Acute oral LD₅₀ for mallard ducks and bobwhite quail >2000 mg/kg. Dietary LC₅₀ (5 d) for bobwhite quail and mallard ducks >5200 mg/kg diet.

Fish LC₅₀ (96 h) for rainbow trout 0.47, bluegill sunfish 1.1, carp 1.6, sheepshead minnows 0.66 mg/l.

Daphnia EC₅₀ (48 h) 0.28 mg/l.

Algae EC₅₀ (72 h) for *Pseudokirchneriella subcapitata* 0.18 mg/l; EC₅₀ (72 h) for diatom *Navicula pelliculosa* 0.028 mg/l.

Other aquatic spp. LC₅₀ (96 h) for mysid shrimps 0.055 mg/l; EC₅₀ (48 h) for Pacific oysters 1.3 mg/l; EC₅₀ (14 d) for *Lemna gibba* 3.2 mg/l; NOEC (25 d) for chironomid larvae 0.2 mg/l.

Bees LD₅₀ for honeybees (oral) >25 µg/bee; (contact) >200 µg/bee.

Worms LC₅₀ (14 d) for earthworms 283 mg/kg.

Other beneficial spp. LR₅₀ for predatory mites *Typhlodromus pyri* >1500 g/ha; LR₅₀ for parasitoid wasps *Aphidius rhopalosiphi* >1000 g/ha.

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

Follow the precaution indicated in the storage and handling section. Follow all regulations in your country.

Hazard class or division: 9

Identification number: UN 3082

Packing group: PG III



15.REGULATORY INFORMATION

no data available

16.INFORMACIÓN ADICIONAL

The data provided here is based on current knowledge and experience. The purpose of this Safety Data Sheet describes the products according to the safety standards. The data does not express any guarantee regarding the properties of the products.

Prepared: HANSEASIA LIMITED.

Updated: HANSEANDINA DEUTSCHLAND GmbH



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