

Material Safety Data Sheet

Famoxadone 22.5% + Cymoxanil 30% WDG

1. PRODUCT IDENTIFICATION

Product Name: Famoxadone 22.5% + Cymoxanil 30% WDG

Common Name: Famoxadone + Cymoxanil

Chemical Family: oxazolidinedione + cyanoacetamide oxime

Chemical Formula: C₂₂H₁₈N₂O₄ (Famoxadone)

C₇H₁₀N₄O₃ (Cymoxanil)

Chemical name:

3-anilino-5-methyl-5-(4-phenoxyphenyl)-1,3-oxazolidine-2,4-dione (Famoxadone);

1-(2-cyano-2-methoxyiminoacetyl)-3-ethylurea (Cymoxanil)

CAS No.: 131807-57-3 (Famoxadone)

57966-95-7 (Cymoxanil)

Product Use: Fungicide

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Registry Number</u>	<u>Typical Wt. w/w</u>
Famoxadone	131807-57-3	22.5%
Cymoxanil	57966-95-7	30%
Inert		to balance

3. HAZARDS IDENTIFICATION

Emergency Overview

Off white granule with not distinct odor.

CAUTION!

KEEP OUT OF REACH OF CHILDREN

MAY CAUSED SKIN SLIGHT IRRITATION

MAY CAUSED EYE SLIGHT IRRITATION

Potential Health effects

Dermal contact, ingest and inhalation of the product are the primary routes to induce potential adverse health effects. Inhalation of aerosol during application of the product as part of its end use is another potential route of entry. Eye and skin irritation may occur from contact with the liquid or spray mixture.

4. FIRST AID MEASURES

If swallowed: If ingestion is suspected, using one or two glasses of water and induce vomiting by touching back of throat with finger. Never give anything by mouth to an unconscious person. Should be send to the hospital treatment immediately.

If in eye: Immediately rinse eyes with a large amount of running water. Hold eyelids apart to rinse the advice of a physician.

If on skin: Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.

If Inhaled: Move victim from contaminated area to fresh air. Apply artificial respiration if necessary.

Notes to Physician:

There is no specific antidote, Treat symptomatically.

5. FIRE FIGHTING MEASURES

Fire and explosive Properties

Auto-Ignition Temperature	Not applicable
Flash Point	Not available, the solvent is water.

Extinguishing Media

Water fog, Carbon Dioxide, Dry Chemical, Foam and halogenated agents.

Fire Fighting Instructions

The product is not flammable. But if firing, fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear and self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use. Person who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.



6. ACCIDENTAL RELEASE MEASURES

In Case Of Spill or Leak

Stop the leak, if possible. Ventilate the space involved. Absorb, sweep up, place in container for disposal. Shut off or remove all ignition sources. Prevent waterway contamination. Construct a dike to prevent spreading. Protect works with water spray. Collect run-off water and transfer to drums or tanks for later disposal.

7. HANDLING AND STORAGE

Handling

Harmful if swallowed, inhaled, or absorbed through the skin. Causes eye irritation. Do not breathe gas or allow to get in eyes, on skin, or on clothing. Wash hands, arm and face thoroughly with soap and warm water after use and before eating or smoking. Wash all contaminated clothing with soap and hot water before reuse. Do not contaminate feed or food items. Keep out of reach of children.

Storage

Store in a cool dry and air ventilating warehouse and protected from light. Avoid contacting with food, feed stuff and seed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection

Goggles and full face shield should be used when needed to prevent liquid from face and getting into the eyes.

Skin Protection

Avoid skin contact. Use chemical-resistant gloves, and wear long sleeves and trousers to prevent dermal exposure.

Respiratory Protection

Under normal handling conditions no respiratory protection is needed. However, if needed to prevent respiratory irritation, either a respirator approved for dusts and mists, or one approved for pesticides.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: Off white
Physical state: Granule
Odor: not distinct odor
Melting point: 141.3–142.3 °C (Famoxadone)

Vapour pressure: 160–161 °C; (tech., 159–160 °C) (Cymoxanil)
6.4 × 10⁻⁴ mPa (20 °C) (Famoxadone)
0.15 mPa (20 °C) (Cymoxanil)

Density: 1.31 (22 °C) (Famoxadone)
1.32 (25 °C) (Cymoxanil)

Solubility in water: In water 52 (unbuffered water, pH 7.8–8.9), 243 (pH 5), 111 (pH 7), 38 (pH 9) (all in µg/l, 20 °C). (Famoxadone)
In water 890 mg/kg (pH 5, 20 °C). (Cymoxanil)

Solubility in organic solvents: In acetone 274, toluene 13.3, dichloromethane 239, hexane 0.048, methanol 10, ethyl acetate 125.0, n-octanol 1.78, acetonitrile 125 (all in g/l, 25 °C). (Famoxadone)

In hexane 0.037, toluene 5.29, acetonitrile 57, ethyl acetate 28, n-octanol 1.43, methanol 22.9, acetone 62.4, dichloromethane 133.0 (all in g/l, 20 °C). (Cymoxanil)

Partition coefficient: Does not dissociate (Famoxadone)
 $K_{ow} \log P = 9.7$ (Cymoxanil)

10. STABILITY AND REACTIVITY

Stability

At room temperature, aqueous solution undergoes slow decomposition. The rate of decomposition increases at higher temperatures, in the presence of sunlight, on exposure to air, and in alkaline media.

Hazardous Polymerization

Does not occur.

Incompatibility

The product is not compatible with Strong bases, strong acids, strong oxidizing agents.

Hazardous Decomposition Products

Not available

11. TOXICOLOGICAL INFORMATION

Acute Oral: Acute oral LD50 for rats >5000 mg/kg. (Famoxadone)
Acute oral LD50 for male rats 760, female rats 1200 mg/kg. (Cymoxanil)

Acute Dermal: Minor skin and eye irritation (rabbits). (Famoxadone)
Acute percutaneous LD50 for rabbits >2000 mg/kg (24 h).
Slightly irritating to skin and eyes. (rabbits).

Irritation: Not irritant to skin; severe eye irritant. (rabbits). (Cymoxanil);
Not an eye irritant; slight skin irritant (rabbits).(Propiconazole)

Sensitisation: Not a skin sensitiser (guinea pigs). (Cymoxanil+Propiconazole).

Long-term Studies: Studies showed no evidence of carcinogenicity and mutagenicity to rats and rabbits.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

Cymoxanil

Effects on Birds: Acute oral LD50 for bobwhite quail >2250 mg/kg. Dietary LC50 (5 d) for bobwhite quail and mallard ducks >5260 mg/kg. (Famoxadone)

Acute oral LD50 for bobwhite quail and mallard ducks >2250 mg/kg.
Dietary LC50 (8 d) for bobwhite quail and mallard ducks >5620 mg/kg diet. (Cymoxanil)

Effects on Fish: LC50 (96 h) for rainbow trout 0.011, sheepshead minnows 0.049, carp 0.17 mg/l. (Famoxadone)

LC50 (96 h) for rainbow trout 61, bluegill sunfish 29, common carp 91, sheepshead minnows >47.5 mg/l. (Cymoxanil)

Daphnia: EC50 (48 h) 0.012 mg/l. (Famoxadone)
LC50 (48 h) 27 mg/l. (Cymoxanil)

Worms: LC50 (14 d) for earthworms 470 mg/kg soil. (Famoxadone)
LC50 (14 d) >2208 mg/kg soil. (Cymoxanil)

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Pesticide wastes are acutely hazardous. Do not reuse product containers. Dispose product containers, waste containers, residues according local health and environmental regulations.

14. TRANSPORT INFORMATION

UN number: 3077.

Class and subsidiary risk: Division 9

Packing group: III.

15. REGULATORY INFORMATION

Symbol: Xn

R phrase: R₂₂

S phrase: S_{1/2}, S_{3/7}, S_{20/21}, S_{24/25}

16. OTHER INFORMATION

The information contained herein relates only to the specific material identified. We believe that such information is accurate and reliable as of the date of this material safety data sheet,

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