

Date: 4/13/2016

Replaces: 1/22/2013

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **WARDEN CX**

Product No.: 1440234

Use: Fungicide

Manufacturer: Winfield Solutions, LLC

Post Office Box 64589

St. Paul, MN 55164

Medical Emergency Phone: 1-877-424-7452

**Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident Phone: 1-800-424-9300**

### 2. HAZARDS IDENTIFICATION

Classifications: Skin Sensitizer: Category 1B

Signal Word (OSHA): Warning

Hazard Statements: May cause an allergic skin reaction

Hazard Symbols:



Precautionary Statements: Avoid breathing mist, vapors, spray.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves, protective clothing, eye protection.  
If on skin: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice.  
See Section 4 First Aid Measures.  
Wash contaminated clothing before reuse.  
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Glycerin	Glycerin	56-81-5	<10.0%
Other ingredients	Other ingredients	Trade Secret	>72.01%

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(R,S)-2-[(2,6-dimethylphenyl)-methoxyacetylamino]-propionic acid methyl ester	Mefenoxam	70630-17-0 & 69516-34-3	5.99%
4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile	Fludioxonil	131341-86-1	1.00%
3-(2-chloro-1,3-thiazol-5-ylmethyl)-5-methyl-1,3,5-oxadiazinan-4-ylidene(nitro)amine	Thiamethoxam	153719-23-4	20.0%
1H-Pyrazole-4-carboxamide, N-(2-[1,1'-bicyclopropyl]-2-ylphenyl)-3-(difluoromethyl)-1-methyl-	Sedaxane	874967-67-6	1.00%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

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#### 4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling a poison control center or doctor, or going for treatment.

- Ingestion:** If swallowed: Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

Allergic skin reaction

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

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#### 5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

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### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

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### 7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Not Applicable

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Glycerin	15 mg/m <sup>3</sup> TWA (total); 5 mg/m <sup>3</sup> TWA (respirable)	Not Established	Not Established	Not Applicable
Other ingredients	Not Established	Not Established	Not Established	Not Applicable
Mefenoxam	Not Established	Not Established	5 mg/m <sup>3</sup> TWA	Syngenta
Fludioxonil	Not Established	Not Established	5 mg/m <sup>3</sup> TWA	Syngenta
Thiamethoxam	Not Established	Not Established	3 mg/m <sup>3</sup> TWA	Syngenta
Sedaxane	Not Established	Not Established	2 mg/m <sup>3</sup> TWA	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely, use chemical splash goggles.

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### Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

### Inhalation:

A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH certified respirator with any R, P or HE filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Red opaque liquid

Odor: Faint paint

Odor Threshold: Not Available

pH: 6.3 (1% solution in deionized H<sub>2</sub>O @ 77°F [25°C])

Melting point/freezing point: Not Available

Initial boiling point and boiling range: Not Available

Flash Point (Test Method): Not Available

Flammable Limits (% in Air): Not Available

Flammability: Not Available

Vapor Pressure: Fludioxonil 2.9 x 10<sup>(-9)</sup> mmHg @ 77°F (25°C)

Mefenoxam 2.5 x 10<sup>(-5)</sup> mmHg @ 77°F (25°C)

Sedaxane 4.9 x 10<sup>(-10)</sup> mmHg @ 68°F (20°C)

Thiamethoxam 2 x 10<sup>(-11)</sup> mmHg @ 68°F (20°C)

Vapor Density: Not Available

Relative Density: 1.136 g/cm<sup>3</sup> ; 9.480 lbs/gal @ 68°F (20°C)

Solubility (ies): Fludioxonil 1.8 mg/l @ 77°F (25°C)

Mefenoxam 26 g/l @ 77°F (25°C)

Sedaxane 14 mg/l @ 77°F (25°C)

Thiamethoxam 4.1 g/l @ 77°F (25°C)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: Not Available

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

## 10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: None known.

Incompatible materials: None known.

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Hazardous Decomposition Products: Not Available

### 11. TOXICOLOGICAL INFORMATION

#### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Rash, redness or itching

Delayed, immediate and chronic effects of exposure: Allergic skin reaction

#### Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	3129 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 5000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	> 2.54 mg/l air - 4 hours
Eye Contact:	Minimally Irritating (Rabbit)	
Skin Contact:	Slightly Irritating (Rabbit)	
Skin Sensitization:	Not a Sensitizer (Guinea Pig)	

#### Reproductive/Developmental Effects

Fludioxonil: Delayed development at doses causing maternal toxicity.

Mefenoxam: None observed.

Sedaxane: Did not show teratogenic effects in animal experiments.  
Did not show reproductive toxicity effects in animal experiments.

Thiamethoxam: Developmental: Not teratogenic in rats or rabbits.

Reproductive: No effects on reproduction. Minor increase in a common testis effect in rats at high doses, which did not affect reproduction.

#### Chronic/Subchronic Toxicity Studies

Fludioxonil: Liver and kidney toxicity at high dose levels.

Mefenoxam: Liver effects at high dose animal tests.

Sedaxane: STOT - Repeated Exposure : No adverse effect has been observed in chronic toxicity tests.

Thiamethoxam: Subchronic: Liver effects occurred in rodents only at high dose levels. Not neurotoxic after high acute and subchronic exposure in rats.

#### Carcinogenicity

Fludioxonil: Marginal increase (7%) of liver tumors (female, rats: 3,000 ppm); Within historical control range (1 to 10%).

Mefenoxam: None observed.

Sedaxane: Did not show mutagenic effects in animal experiments.

At extremely high doses, numerically higher incidences of uterine, thyroid and liver tumors (male and/or female rats) and liver tumors (male mice) were within the range of normal background variation and thus considered unrelated to treatment. Some Regulatory Authorities have taken a more conservative position that these high-dose findings are treatment-related in rats and mice. The dose levels where these findings occur are not relevant to human exposure levels.

Thiamethoxam: Classified as "not likely to be carcinogenic in humans" based on lifetime studies in mice and rats.

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Chemical Name	NTP/IARC/OSHA Carcinogen
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Glycerin	No
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Other ingredients	No
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(R,S)-2-[(2,6-dimethylphenyl)-methoxyacetylamino]-propionic acid methyl ester	No
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4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile	No
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3-(2-chloro-1,3-thiazol-5-ylmethyl)-5-methyl-1,3,5-oxadiazinan-4-ylidene(nitro)amine	No
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1H-Pyrazole-4-carboxamide, N-(2-[1,1'-bicyclopropyl]-2-ylphenyl)-3-(difluoromethyl)-1-methyl-	No
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### Other Toxicity Information

None

### Toxicity of Other Components

Glycerin

Repeated or prolonged exposure to concentrated solutions may result in dermatitis.

Other ingredients

Not Established

### Target Organs

#### Active Ingredients

Fludioxonil: Liver, kidney

Mefenoxam: Liver

Sedaxane: Not Applicable

Thiamethoxam: Liver

#### Inert Ingredients

Glycerin: Skin

Other ingredients: Not Established

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## 12. ECOLOGICAL INFORMATION

### Eco-Acute Toxicity

Mefenoxam:

Fish (Rainbow Trout) 96-hour LC50 > 121 ppm

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 > 113 ppm

Bird (Bobwhite Quail) 14-day LD50 981 mg/kg

Fludioxonil:

Fish (Rainbow Trout) 96-hour LC50 0.47 ppm

Green Algae 5-day EC50 0.087 ppm

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.9 ppm

Bird (Bobwhite Quail) 14-day LD50 > 2000 mg/kg

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Thiamethoxam:

Fish (Rainbow Trout) 96-hour LC50 > 100 ppm

Bird (Mallard Duck) LD50 Oral 576 mg/kg

Invertebrate (Daphnia Magna) 48-hour EC50 > 106 ppm

Green Algae 4-day EC50 > 97 ppm

Sedaxane:

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 6.10 mg/l

Green Algae 96-hour EbC50 1.9 mg/l

Fish (Carp) 96-hour LC50 0.62 mg/l

### Environmental Fate

Fludioxonil:

The information presented here is for the active ingredient, fludioxonil.

Does not bioaccumulate. Persistent in soil. Stable in water. Low mobility in soil. Sinks in water (after 24 h).

Mefenoxam:

The information presented here is for the active ingredient, mefenoxam.

Does not bioaccumulate. Not persistent in soil or water. Moderate mobility in soil. Mixes/sinks (after 24 h).

Sedaxane:

The information presented here is for the active ingredient, sedaxane.

Material is not readily biodegradable. Material is not persistent in soil.

Thiamethoxam:

The information presented here is for the active ingredient, thiamethoxam.

Not persistent in soil. Stable in water. Moderate mobility in soil. Floats in water (after 24 h).

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### 13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

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### 14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA

Not regulated

Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fludioxonil, Thiamethoxam), Marine Pollutant

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

Air Transport

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fludioxonil, Thiamethoxam)

Hazard Class: Class 9

Date: 4/13/2016

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Identification Number: UN 3082  
Packing Group: PG III

### 15. REGULATORY INFORMATION

Pesticide Registration:

Not applicable

EPA Registration Number(s):

Not Applicable

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: None

CERCLA/SARA 304 Reportable Quantity (RQ):

Not Applicable

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

### 16. OTHER INFORMATION

#### NFPA Hazard Ratings

Health: 1  
Flammability: 1  
Instability: 0

#### HMIS Hazard Ratings

Health: 1  
Flammability: 1  
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: C,S

For non-emergency questions about this product call: 1-855-494-6343

Revision Date: 4/13/2016

Replaces: 9/19/2007

Section(s) Revised: 1-16

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.