

### WARDEN CEREALS 360

Date: 2/16/2016 Replaces: 9/2/2015

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#### 1. PRODUCT IDENTIFICATION

Product identifier on label: **WARDEN CEREALS 360**

EPA Reg. No. 100-1564-1381

Use: Insecticide/Fungicide

Manufacturer: Winfield Solutions, LLC  
P. O. Box 64589  
St. Paul, MN 55164-0589

**For Medical Emergency Phone:** 1-877-424-7452

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

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#### 2. HAZARDS IDENTIFICATION

Classifications: Carcinogenicity: Category 2  
Specific Target Organ Toxicity: Respiratory Irritation Category 3

Signal Word (OSHA): Warning

Hazard Statements: May cause respiratory irritation  
Suspected of causing cancer

Hazard Symbols:

Precautionary Statements:

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Avoid breathing mist, vapors, spray.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves, protective clothing, eye protection.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
If exposed or concerned: Call a poison center, doctor or Syngenta.  
Call a poison center, doctor or Syngenta if you feel unwell.  
Store locked up.  
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

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#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Titanium Dioxide	Titanium Dioxide	13463-67-7	<5%
1,2-Propanediol	Propylene Glycol	57-55-6	<15%
Linseed Oil	Linseed Oil	8001-26-1	<20%
Other ingredients	Other ingredients	Trade Secret	>48.41%
1H-1,2,4-Triazole, 1-[[2-[2-chloro-4-(4chlorophenoxy)phenyl]-4-methyl-1,3dioxolan-2-yl]methyl]-	Difenoconazole	119446-68-3	3.47%
(R,S)-2-[(2,6-dimethylphenyl)methoxyacetylamino]-propionic acid methyl ester	Mefenoxam	70630-17-0 & 69516-34-3	0.87%
3-(2-chloro-1,3-thiazol-5-ylmethyl)-5methyl-1,3,5-oxadiazinan-4ylidene(nitro)amine	Thiamethoxam	153719-23-4	5.79%
1H-Pyrazole-4-carboxamide, N-(2-[1,1'bicyclopropyl]-2-ylphenyl)-3(difluoromethyl)-1-methyl-	Sedaxane	874967-67-6	0.87%
Kinetin	Kinetin	525-79-1	0.054%
Indolebutyric Acid	Indolebutyric Acid	133-32-4	0.027%
Gibberellin A4 with gibberellin A7	Novagib Technical	468-44-0	0.018%

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

#### 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 by 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:

Respiratory irritation

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:

None known.

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.

#### 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.

#### 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:

Store locked up.

#### 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
Titanium Dioxide	15 mg/m <sup>3</sup> TWA (total)	10 mg/m <sup>3</sup> TWA	2.4 mg/m <sup>3</sup> 10-hr TWA (fine dust); 0.3 mg/m <sup>3</sup> (ultrafine dust)	Manufacturer
Propylene Glycol	Not Established	Not Established	10 mg/m <sup>3</sup> TWA	AIHA
Linseed Oil	Not Established	Not Established	Not Established	Not Applicable

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Other ingredients	Not Established	Not Established	Not Established	Not Applicable
Difenoconazole	Not Established	Not Established	5 mg/m <sup>3</sup> TWA	Manufacturer
Mefenoxam	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
Kinetin	Not Established	Not Established	Not Established	Not Applicable
Indolebutyric Acid	Not Established	Not Established	Not Established	Not Applicable
Novagib Technical	Not Established	Not Established	Not Established	Not Applicable

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 splash-proof chemical goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Skin Contact:**

Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear.

**Inhalation:** A combination particulate/organic vapor respirator should be used until effective engineering controls are installed to comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

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.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid

Odor: Not determined

Odor Threshold: Not

Applicable pH: Not

Available

Melting point/freezing point: Not Available

Initial boiling point and boiling range: Not Applicable

Flash Point (Test Method): >216°F

Flammable Limits (% in Air): Not Available

Flammability: Not Available

Vapor Pressure: Difenoconazole 2.5 x 10<sup>(-10)</sup> mmHg @ 77°F (25°C)

Indolebutyric Acid Not Available

Kinetin Not Available

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

Novagib Technical Not Available

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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: 1.06 g/ml

Solubility (ies): Difenoconazole 15 mg/l @ 77°F (25°C)  
Indolebutyric Acid Not Available  
Kinetin Not Available  
Mefenoxam 26 g/l @ 77°F (25°C)  
Novagib Technical Not Available  
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: =435°C

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.

Hazardous Decomposition Products: Not Available

#### 11. TOXICOLOGICAL INFORMATION

##### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Respiratory irritation

Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Respiratory system effects

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

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Ingestion:	Oral (LD50 Rat) :	> 5000 mg/kg body
Dermal:	Dermal (LD50 Rat) :	weight > 5000 mg/kg body
Inhalation:	Inhalation (LC50 Rat) :	weight
Eye Contact:	Non-Irritating Non-	> 2.08 mg/l
Skin Contact:	Irritating	
Skin Sensitization:	Not a skin sensitizer.	

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#### Reproductive/Developmental Effects

Difenoconazole: None observed.

Indolebutyric Acid: Not Available

Kinetin: Not Available

Mefenoxam: None observed.

Novagib Technical: Not Available

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

Difenoconazole: Kidney and liver effects at high doses (>5000 ppm; rats); Eye effects in dogs at high dose levels.

Indolebutyric Acid: Not Available

Kinetin: Not Available

Mefenoxam: Liver effects at high dose animal tests.

Novagib Technical: Not Available

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

Difenoconazole: Did not show carcinogenic effects in animal experiments.

Indolebutyric Acid: Not Available

Kinetin: Not Available

Mefenoxam: None observed.

Novagib Technical: Not Available

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.

Chemical Name NTP/IARC/OSHA Carcinogen

Titanium Dioxide IARC Group 2B

1,2-Propanediol No Linseed Oil No

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Other ingredients	No
1H-1,2,4-Triazole, 1-[[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-yl]methyl]-	No
(R,S)-2-[(2,6-dimethylphenyl)-methoxyacetyl-amino]-propionic acid methyl ester	No
3-(2-chloro-1,3-thiazol-5-ylmethyl)-5-methyl-ylidene(nitro)amine	No 1,3,5-oxadiazinan-4-
1H-Pyrazole-4-carboxamide, N-(2-[1,1'-bicyclopropyl]-2-ylphenyl)-3-(difluoromethyl)-1methyl-	No
Kinetin	No
Indolebutyric Acid	No
Gibberellin A4 with gibberellin A7	No

Other Toxicity Information

Not Available

Toxicity of Other Components

Linseed Oil

Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.

May cause an allergic skin reaction. Other ingredients

Not Established

Propylene Glycol

Reported to cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea. Also, eye irritation may occur with lacrimation but no residual discomfort or injury. Prolonged contact to skin may cause mild to moderate irritation and possible allergic reactions. Chronic dietary exposure caused kidney and liver injury in experimental animals.

Titanium Dioxide

Titanium dioxide is listed as an IARC Group 2B (Possibly Carcinogenic to Humans).

Prolonged exposure causes respiratory irritation and may lead to pulmonary fibrosis.

Normal handling and field strength application of this product are not expected to result in exposures exceeding the occupational exposure limit(s) for this ingredient.

Target Organs Active

Ingredients

Difenoconazole:	Brain, liver, kidney, gastrointestinal tract
Indolebutyric Acid:	Not Available
Kinetin:	Not Available
Mefenoxam:	Liver
Novagib Technical:	Not Available
Sedaxane:	Not Applicable
Thiamethoxam:	Liver

Inert Ingredients

Linseed Oil:	Respiratory tract, skin, digestive tract, eye
Other ingredients:	Not Established
Propylene Glycol:	CNS, kidney, liver
Titanium Dioxide:	Lung

## 12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Difenoconazole:

Fish (Rainbow Trout) 96-hour LC50 1.1 mg/l

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.77 mg/l

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Green Algae 72-hour EbC50 0.032 mg/

## 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

## 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

## Kinetin:

Not Available

## Indolebutyric Acid:

Not Available

## Novagib Technical:

Not Available

## Environmental Fate

## Difenoconazole:

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

Stable in soil and water. Low to moderate mobility in soil. Sinks in water (after 24 h).

## Indolebutyric Acid:

Not Available

## Kinetin:

Not Available

## 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).

## Novagib Technical:

Not Available

## 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).

**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.



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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. (Difenoconazole, 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. (Difenoconazole, Thiamethoxam)  
Hazard Class: Class 9  
Identification Number: UN 3082  
Packing Group: PG III

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#### 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:

TSCA R & D Exempt

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#### 16. OTHER INFORMATION

##### NFPA Hazard Ratings

Health: 2  
Flammability: 1  
Instability: 0

##### HMIS Hazard Ratings

Health: 2  
Flammability: 1  
Reactivity: 0

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

Hazard Category: D\*

Original Issued Date: 2/16/2016

Revision Date:

Replaces:

Section(s) Revised:

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.