


Safety Data Sheet

NFPA HAZARD RATING				U.S. TRANSPORT SUMMARY	
0	Least				
1	Slight	2	Health		Not regulated by the U.S. DOT as a hazardous material. See Section 14 for additional information.
2	Moderate	1	Flammability		
3	High	0	Reactivity		
4	Severe				

SECTION 1: IDENTIFICATION	
Product Name:	Warden Cereals WR11 Fungicide, Insecticide
EPA Registration #:	100-1527-1381
Product ID/Unity #:	1587090
Common Name:	Difenoconazole, Mefenoxam, Fludioxonil, Thiamethoxam, Sedaxane
Chemical Description:	1H-1,2,4-triazole,1-[[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-yl]methyl]-; (R,S)-2-[(2,6-dimethylphenyl)-methoxyacetyl-amino]-propionic acid methyl ester; 4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile; 3-(2-chloro-1,3-thiazol-5-ylmethyl)-5-methyl-1,3,5-oxadiazinan-4-ylidene(nitro)amine; 1H-Pyrazole-4-carboxamide,N-(2-[1,1'-bicyclopropyl]-2-ylphenyl)-3-(difluoromethyl)-1-methyl-
Recommended Uses:	Agricultural insecticide, grain protectant – See product label for use directions.
Restrictions for Use:	See product label for any potential use restrictions.
Manufactured For: WINFIELD SOLUTIONS, LLC P. O. Box 64589 St. Paul, MN 55164-0589	MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs) Non-Emergency Business Inquiries: 1-855-494-6343 Mon – Fri 8am – 5pm (Central Standard Time)
FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL: CHEMTREC 1-800-424-9300 (24 hours)	

SECTION 2: HAZARDS IDENTIFICATION	
EMERGENCY OVERVIEW: Specific Target Organ Toxicity: Respiratory Irritation Category 3; Eye damage/Irritation: Category 2B; Carcinogenicity: Category 2, Specific Target Organ Toxicity: Single Category 2.	
POTENTIAL HEALTH EFFECTS: Eyes: Causes eye irritation. Skin: May cause mild but reversible skin irritation. Inhalation: May cause respiratory irritation. Ingestion: May cause minor irritation of the digestive tract. Preexisting Conditions: None known Chronic Health Effects: Suspected of causing cancer, may cause damage to organs through prolonged or repeated exposure.	
Carcinogenicity	NTP: Not listed IARC: Not listed OSHA: Not listed
OSHA HCS 2012 CLASSIFICATION: Specific Target Organ Toxicity. Respiratory Irritation Category 3. Eye damage/Irritation: Category 2B; Carcinogenicity: Category 2, Specific Target Organ Toxicity: Single Category 2.	
SIGNAL WORD: WARNING	
HAZARD STATEMENTS: Causes eye irritation. May cause respiratory irritation. Suspected of causing cancer.	
	

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May cause damage to organs through prolonged or repeated exposure.

Percent of product with unknown toxicity: 0%

PRECAUTIONARY STATEMENTS:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist, vapors, spray. Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well ventilated area. Wear protective gloves, protective clothing, eye protection.

Response: If inhaled: remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice. If exposed or concerned, get medical advice/attention. Call a poison center or doctor if you feel unwell.

Storage: Store locked up

Disposal: Dispose of contents and container in accordance with local regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% (wt)	CAS Reg. #
Glycerin	Trade Secret	56-81-5
Titanium Dioxide	Trade Secret	13463-67-7
Propylene Glycol	Trade Secret	57-55-6
Talc	Trade Secret	14807-96-6
Other ingredients	87.78%	Trade Secret
Difenoconazole	3.45%	119446-68-3
Mefenoxam	0.86%	70630-17-9 & 69516-34-3
Fludioxonil	0.72%	13141-86-1
Thiamethoxam	5.75%	153710-23-4
Sedaxane	1.44%	874967-67-6
Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.		
See Section 8 for exposure limits.		

SECTION 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.

Inhalation: If inhaled: move the person to fresh air. If the 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.

Ingestion: If swallowed: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. 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.

Eyes: 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: 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. Clean contaminated clothing and shoes before re-use.

Most important symptoms/effects

Eye irritation
Respiratory irritation

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.
Treat symptomatically

SECTION 5: FIRE FIGHTING MEASURES

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

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

Special Fire Fighting Procedures: 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.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Environmental Precautions: Keep spilled product from entering sewers or waterways.

Methods for Containment and Clean up: Control the spill at its source. Contain the spill to prevent it 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. If a solid, sweep up material and place in a compatible disposal container. Scrub area with hard water detergent (e.g. commercial products with 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.

Other Information: None known

SECTION 7: HANDLING AND STORAGE

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.

Storage: Store locked up.

Minimum Storage Temperature: Not determined

Other Precautions: Consult Federal, state and local laws and regulations pertaining to storage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

Exposure Guidelines

Component:	OSHA PEL	ACGIH TLV	NIOSH/AIHA REL
Glycerin	15mg/m ³ TWA (total); 5mg/m ³ TWA (respirable)	Not Established	Not applicable
Titanium Dioxide	15 mg/m ³ TWA(total)	10 mg/m ³ TWA	2.4 mg/m ³ 10hr TWA (fine dust); 0.3 mg/m ³ (ultrafine dust) (Manufacturer)
Propylene Glycol	Not Established	Not Established	10 mg/m ³ TWA (AIHA)
Talc	20 mppcf (containing <1% quartz) TWA	2 mg/m ³ (respirable; <1% crystalline silica) TWA	2 mg/m ³ (respirable; <1% quartz) TWA (NIOSH)
Other ingredients	Not Applicable	Not Applicable	Not Applicable
Difenoconazole	Not Established	Not Established	8 mg/m ³ TWA (Syngenta)
Mefenoxam	Not Established	Not Established	10 mg/m ³ TWA (Syngenta)
Fludioxonil	Not Established	Not Established	10 mg/m ³ TWA (Syngenta)
Thiamethozam	Not Established	Not Established	3 mg/m ³ TWA (Syngenta)
Sedaxane	Not Established	Not Established	2 mg/m ³ TWA (Syngenta)

Respiratory Protection: For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area, use a NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates.

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

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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 Protection: Where eye contact is likely, use chemical splash goggles.

Skin Protection: 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.

Work/Hygienic Practices: Never eat, drink, nor use tobacco in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Specific Gravity (H₂O=1):	1.073 g/cm ³
Odor:	Aromatic	Density (lbs/gallon):	8.954 lbs/gal
Vapor Pressure (mm Hg):	Difenoconazole 2.5 x 10 ⁻¹⁰ mmHg @ 77° F (25° C) Fludioxonil 2.9 x 10 ⁻⁹ mmHg @ 77° F (25° C) Mefenoxam 2.5 x 10 ⁻⁵ mmHg @ 77° F (25° C) Sedaxane 4.9x10 ⁻¹⁰ mmHg @ 68° (20° C) Thiamethoxam 2 x 10 ⁻¹¹ mmHg @ 68° F (20° C)	Melting Point/Freezing Point:	Not Available
Vapor Density (Air=1):	Not determined	Boiling Point/Range:	Not Available
Solubility in Water (wt %):	Difenoconazole 15mg/l @ 77° F (25° C) 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)	pH:	6.7 (1% solution in deionized H ₂ O @ 77° F [25° C])
Viscosity (centistokes):	Not available	Flash Point:	Not available
Appearance and odor:	Red liquid		

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive

Chemical Stability: Product is stable under normal storage and storage conditions.

Possibility of Hazardous Reactions: Will not occur

Conditions to Avoid: None known

Incompatible Materials: None known

Hazardous Decomposition Products: Not available.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Eye Effects: Minimally irritating (Rabbit).

Dermal Effects: Slightly irritating (Rabbit, Skin Sensitization: Not a sensitizer (Guinea Pig); LD50 (Rat) >5000 mg/kg body weight

Acute Inhalation Effects: LC50 (Rat): >2.59 mg/l air – 4 hours

Acute Oral Effects: See "Ingestion"

Ingestion: Oral (LD50 Rat) >5000 mg/kg body weight

CHRONIC TOXICITY

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

Fludioxonil: Liver and kidney toxicity at high dose levels.

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Carcinogenicity:

Mefenoxan: 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.
 Difenoconazole: Did not show carcinogenic effects in animal experiments
 Fludioxonil: Marginal increase (7%) of liver tumors (female, rates: 3,000 ppm); Within historical control range (1 to 10%).
 Mefenoxan: 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 rates) and liver tumors (male mice) were within 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 finding 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.

Mutagenicity:

Did not show mutagenic effects in animal experiments.

Teratogenicity:

Did not show teratogenic effect in animal experiments

Chemical Name

NTP/IARC/OSHA Carcinogen

Glycerin	No
Titanium Dioxide	IARC group 2B
Propylene Glycol	No
Talc	IARC Group 3
Other ingredients	No
Difenoconazole	No
Fludioxonil	No
Mefenoxan	No
Sedaxane	No
Thiamethoxam	No

Reproductive Toxicity:

Difenoconazole: None Observed
 Fludioxonil: Delayed development at doses causing maternal toxicity.
 Mefenoxan: Non Observed
 Sedaxane: Did not show reproductive toxicity effects in animal experiments.
 Thiamethoxam: Developmental: Not teratogenic in rats or rabbits.
 No effects on reproduction. Minor increase in a common testis effect in rats at high doses, which did not affect reproduction.

Other Toxicity Information:

None

Target Organs and Toxicity of Other Components

Active Ingredients

Difenoconazole	Brain, liver, kidney, gastrointestinal tract
Fludioxonil	Liver, kidney
Mefenoxam	Liver
Sedaxane	Not Applicable
Thiamethoxam	Liver

Inert Ingredients

Glycerin	Skin, Repeated or prolonged exposure to concentrated solutions may result in dermatitis
Other Ingredients	Not Applicable
Propylene Glycol	CNS, kidney, liver. Reported to cause central nervous system depression (anesthesia, dizziness, and confusion), headache and nausea. Also, eye irritation may occur with

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Talc
Titanium Dioxide

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.
Respiratory tract. Limited potential for respiratory disease.
Lung. Listed as an IARC Group 2B (possibly carcinogenic to humans). Prolonged exposure causes respiratory irritation and may lead to pulmonary fibrosis.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Not determined

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 Green Algae 72-hour EbC50 0.032mg/l
Mefenoxam	Fish (Rainbow Trout) 96-hour LC50 >121 ppm Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 >113ppm 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 0.9ppm Bird (Bobwhite Quail) 14-day LD50 >2000 mg/kg
Thiamethoxam	Fish (Rainbow Trout) 96-hour LC50>100ppm Bird (Mallard Duck) LD50 Oral 576 mg/kg Invertebrate (Daphnia Magna) 48-hour EC50>106ppm Green Algae 4-day EC50>97ppm
Sedaxane:	Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 6.10 mg/l Green Algae 96-hour EbC50 1.9mg/l Fish (Carp) 96-hour LC50 0.62 mg/l

ENVIRONMENTAL EFFECTS:

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 hours).
Fludioxonil:	The information presented here is for the active ingredient, fludioxonil. Does not bioaccumulate. Persist 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 hours).
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. Nor persistent in soil. Stable in water. Moderate mobility in soil. Floats in water (after 24 h).

SECTION 13: DISPOSAL CONSIDERATIONS

Waste: Dispose of in accordance with applicable Federal, state and local laws and regulations.
Container: Do not reuse product containers. Dispose of product containers, waste containers and residues in accordance with Federal, state and local laws and regulations.
RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

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SECTION 14: TRANSPORT INFORMATION	
DOT: (Ground)	This product is not regulated by the U.S. Department of Transportation as a hazardous material for ground shipment.
IMDG: (Sea)	Water Transport – International, Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Thiamethoxam, Fludioxonil), Marine Pollutant; Hazard Class: 9; Identification Number: UN 3082; Packing Group PG III.
IATA: (Air)	Proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Thiamethoxam, Fludioxonil); Hazard Class: 9; Identification Number: UN 3082; Packing Group: PG III
TDG: (Canada)	Not established

SECTION 15: REGULATORY INFORMATION							
TSCA Inventory: All components are listed or exempt from listing on the TSCA inventory, subject to FIFRA.							
EPA Registration Number(s): 100-1527-1381							
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following the hazard information as required on the pesticide label.							
Caution: Wash hands before eating, drinking, and chewing gum, using tobacco or using the toilet. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.							
SARA Title III Information: Section 302 - Extremely hazardous substances: None listed Section 311/312 – Hazard Categories: Acute Health Hazard Section 313 – The following chemicals are subject to the reporting requirements of Section 313 of Title III, Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372: None listed							
CERCLA - This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): Not Applicable							
California Proposition 65: This product does not contain any chemicals known to the state of California to cause cancer and/or reproductive harm.							
U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI): <table border="1"><thead><tr><th>Chemical Name</th><th>CAS #</th><th>State(s)</th></tr></thead><tbody><tr><td colspan="3">No components listed</td></tr></tbody></table>		Chemical Name	CAS #	State(s)	No components listed		
Chemical Name	CAS #	State(s)					
No components listed							
Canadian Domestic Substances List: All components are listed on the DSL.							
WHMIS Classification:							

SECTION 16: OTHER	
Disclaimer: The information presented herein is based on available data from reliable sources and is correct to the best of WinField Solutions' knowledge. WinField Solutions, LLC makes no warranty, express nor implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.	
Revision Date: 06/14/15	Supersedes document dated: NA
Sections Revised: 1-16	