

SAFETY DATA SHEET

WINFIELD™
WARDEN CEREALS HR

Revision Date:
05/10/2016

Replaces:
06/07/2012

SECTION 1. IDENTIFICATION

Product name : WARDEN CEREALS HR

Unity #: : 1416953

Manufacturer or supplier's details

Company: Winfield Solutions, LLC
P.O. Box 64589
St. Paul, MN 55164
Non-Emergency Business Inquiries: 1-855-494-6343
Mon – Fri 8am – 5pm (CST)

Emergency telephone

Emergency telephone: Chemtrec: 1 800 424-9300 (24 hours)
Medical Emergency: 1-877-424-7452 (24 hrs)

Recommended use of the chemical and restrictions on use

Recommended use : Seed treatment

Restrictions on use : Agriculture, For professional users only.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Inhalation) : Category 4

Eye irritation : Category 2B

Reproductive toxicity : Category 2

Acute aquatic toxicity : Category 2

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Chronic aquatic toxicity : Category 1

GHS Label element

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H320 Causes eye irritation.
H332 Harmful if inhaled.
H361 Suspected of damaging fertility or the unborn child.
H401 Toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P391 Collect spillage.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Ipconazole - 0.0384 lbs/gal

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Metalaxyl - 0.0513 lbs/gal
Iidacloprid - 1.286 lb/gal

Ipconazole - 4.60 gm/L
Metalaxyl - 6.15 gm/L
Iidacloprid - 154 gm/L

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (% w/w)
ethane-1,2-diol	107-21-1	>= 20 - < 30
Imidacloprid	138261-41-3	>= 10 - < 20
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	>= 10 - < 20
methyl N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-DL-alaninate	57837-19-1	>= 0.1 - < 1
Ipconazole	125225-28-7	>= 0.1 - < 1

SECTION 4. FIRST AID MEASURES

- If inhaled : Move to fresh air.
Call a POISON CENTER or doctor/ physician.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off with soap and water.
If skin irritation persists, call a physician.
- In case of eye contact : Rinse immediately with plenty of water for at least 15 minutes.
Get medical attention if irritation develops and persists.
- If swallowed : Do NOT induce vomiting.
Rinse mouth with water.
Call a POISON CENTER or doctor/ physician.
- Most important symptoms and effects, both acute and delayed : irritant effects
Symptoms may be delayed.
Harmful if inhaled.
Causes eye irritation.
Suspected of damaging fertility or the unborn child.
- Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
Foam
(on small fires)
Carbon dioxide
(CO2) Dry chemical

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- Unsuitable extinguishing media : Water spray jet
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Do not release chemically contaminated water into drains, soil or surface water.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus. Wear suitable protective clothing, gloves and eye/face protection.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas. Use personal protective equipment. Avoid contact with skin and eyes.
- Environmental precautions : Avoid release to the environment.
- Methods and materials for containment and cleaning up : Absorb on inert material such as sand, earth, vermiculite. Shovel into suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Wear personal protective equipment. Keep tightly closed.
NOTE TO END-USERS: The employee protection recommendations on this SDS may differ from those on the product label. For normal use of this product, always refer to the personal protective equipment requirements on the product label.
- Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethane-1,2-diol	107-21-1	C	50 ppm 125 mg/m ³	OSHA P0
		C	100 mg/m ³	ACGIH
		C (Aerosol only)	100 mg/m ³	ACGIH
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m ³	ACGIH

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		TWA	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
		TWA (Mist)	5 mg/m3	OSHA P0

Hazardous components without workplace control parameters

Ingredients	CAS-No.
Imidacloprid	138261-41-3
methyl N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-DL-alaninate	57837-19-1
Ipconazole	125225-28-7

Personal protective equipment

Respiratory protection : In the absence of engineering controls sufficient to maintain airborne concentrations below recommended occupational exposure limit values, appropriate respiratory protection should be utilized.

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Hand protection

Remarks : Chemical resistant protective gloves

Eye protection : Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Preventive skin protection

Hygiene measures : Wash hands thoroughly with soap and water after handling and before eating, drinking or using tobacco.
Use only with adequate ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid, suspension

Color : red

Odor : mild, sweet

Odor Threshold : No data available

pH : 7.5 - 9

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	: No data available
	: No data available
Flash point	: > 93 °C
Evaporation rate	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Relative density	: No data available
Density	: 1.093 g/cm ³ (20 °C)
Solubility(ies)	
Water solubility	: soluble, dispersible
Solubility in other solvents	: No data available
Partition coefficient: n- octanol/water	: No data available
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Self-Accelerating decomposition temperature (SADT)	: Method: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable under recommended storage conditions.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: Will not occur.
Conditions to avoid	: None known.
Incompatible materials	: None known.

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Hazardous decomposition products : Burning produces obnoxious and toxic fumes.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, female): 3,129 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.52 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Ingredients: ethane-1,2-diol:

Acute oral toxicity : LD50 (Rat, female): 4,700 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 10,670 mg/kg

Ipconazole:

Acute oral toxicity : LD50 (Rat, male): 1,338 mg/kg
Method: OECD Test Guideline 401
GLP: yes

LD50 (Rat, female): 888 mg/kg
Method: OECD Test Guideline 401
GLP: yes

LD50 (Mouse, male): 537 mg/kg
Method: OECD Test Guideline 401
GLP: yes

LD50 (Mouse, female): 468 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : LC50 (Rat, male and female): > 1.88 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes

LC50 (Rat, male and female): > 3.53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402

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GLP: yes

Skin corrosion/irritation

Product:

Exposure time: 72 h
Result: slight irritation

Ingredients:

Ipconazole:

Species: Rabbit
Exposure time: 4 h
Result: No skin irritation
GLP: yes

Serious eye damage/eye irritation

Product:

Species: Rabbit
Result: Mild eye irritation

Ingredients:

Ipconazole:

Species: Rabbit
Result: No eye irritation

Respiratory or skin sensitization

Product:

Result: Did not cause sensitization on laboratory animals.

Ingredients:

Ipconazole:

Species: Guinea pig
Method: Test de Magnusson-Kligmann
Result: Did not cause sensitization on laboratory animals.
GLP: yes

Germ cell mutagenicity

Ingredients:

Ipconazole:

Genotoxicity in vitro

- : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: Mutagenicity (Escherichia coli - reverse mutation assay)
Result: negative
- : Test Type: In Vitro mammalian Cell Gene Mutation Test
Metabolic activation: with and without metabolic activation

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Result: negative

: Test Type: Chromosome aberration test in vitro
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo

: Species: Mouse
Cell type: Bone marrow
Result: negative

Germ cell mutagenicity -
Assessment

: In vitro tests did not show mutagenic effects

Carcinogenicity

Ingredients:

Distillates (petroleum), solvent-dewaxed heavy paraffinic:

Carcinogenicity - Assess-
ment

: Weight of evidence does not support classification as a
carcinogen

Ipconazole:

Carcinogenicity - Assess-
ment

: Animal testing did not show any carcinogenic effects.

IARC

Group 1: Carcinogenic to humans

Distillates (petroleum), sol-
vent-dewaxed heavy paraf-
finic

64742-65-0

OSHA

No ingredient of this product present at levels greater than or
equal to 0.1% is identified as a carcinogen or potential carcino-
gen by OSHA.

NTP

Known to be human carcinogen

Distillates (petroleum), sol-
vent-dewaxed heavy paraf-
finic

64742-65-0

Reproductive toxicity

Ingredients:

Ipconazole:

Effects on fertility:

Species: Rat
Dose: 0, 30, 100 or 300 ppm
General Toxicity F1: NOAEL (No observed adverse effect
level): 9 - 10 mg/kg bw/day

STOT-single exposure

Product:

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Remarks: No data available

STOT-repeated exposure

Ingredients:

Ipconazole:

Target Organs: Eyes

Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Ingredients:

Ipconazole:

Species: Rat, female

NOAEL: 7 mg/kg

LOAEL: 33.2 mg/kg

Application Route: Oral

Exposure time: 13 weeks

Dose: 3.1, 7.0, 15.4 and 33.2 mg/kg

GLP: yes

Target Organs: Adrenal gland, thymus gland

Species: Rat, male

NOAEL: 25.9 mg/kg

LOAEL: 52.2 mg/kg

Application Route: Oral

Exposure time: 13 weeks

Dose: 2.5, 5.8, 12.6, 25.9 and 52.2

GLP: yes

Target Organs: Adrenal gland, thymus gland

Species: Rat, male and female

NOAEL: 10 mg/kg

LOAEL: 40 mg/kg

Application Route: Dermal

Exposure time: 13 weeks

Dose: 0, 2, 10 or 40 mg/kg bw/day

GLP: yes

Species: Rat, male and female

NOAEL: 30 mg/kg

LOAEL: 100 mg/kg

Application Route: Inhalation

Exposure time: 28-day

Dose: 0, 30, 100, 300 or 1000 mg/m³

GLP: yes

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

Imidacloprid:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 211 mg/l
Exposure time: 96 h

Toxicity to terrestrial organisms : LC50 (Colinus virginianus (Bobwhite quail)): 1,500 ppm

LC50 (Anas platyrhynchos (Mallard duck)): 4,700 ppm

Remarks: Highly toxic.

Ipconazole:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 1.3 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.7 mg/l
Exposure time: 48 h
GLP: yes

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.62 mg/l
Exposure time: 72 h
GLP: yes

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.00044 mg/l
Exposure time: 28 d
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.0109 mg/l
Exposure time: 21 d
GLP: yes

M-Factor (Chronic aquatic toxicity) : 100

Persistence and degradability

No data available

Bioaccumulative potential

Ingredients: ethane-1,2-diol:

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Partition coefficient: n-octanol/water : log Pow: -1.3

Ipconazole:
Partition coefficient: n-octanol/water : log Pow: 4.28 - 4.49

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of waste in accordance with environmental legislation.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ipconazole)
Class : 9
Packing group : I II
Labels : 9

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ipconazole)
Class : 9
Packing group : I II
Labels : Miscellaneous
Packing instruction (cargo aircraft) : 9 64
Packing instruction (passenger aircraft) : 964

IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ipconazole)
Class : 9

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Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation
49 CFR

UN/ID/NA number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID,
N.O.S.
(Ipconazole)
Class : 9
Packing group : I II
Labels : CLASS 9
ERG Code : 1 7 1
Marine pollutant : yes(Ipconazole)
Remarks : Not regulated by DOT and TDG if shipped or transported
by road or rail in packaging less than 119 gal / 450 liters

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know
CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Component RQ (lbs)
Ethylene glycol	107-21-1	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ethylene oxide	75-21-8	10	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 302 : No chemicals in this material are subject to the
reporting requirements of SARA Title III, Section
302.

ethane-1,2-diol 107-21-1 23.7 %

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WARNING! This product contains a chemical known in the State of California to cause cancer.

Distillates (petroleum), solvent-dewaxed	64742-65-0
heavy paraffinic	
acetaldehyde	75-07-0
ethylene oxide	75-21-8
1,4-dioxane	123-91-1
quartz (SiO ₂) (Fr = 100%)	14808-60-7

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

ethylene oxide	75-21-8
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TSCA list

Not relevant

FIFRA Hazard Information:

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use.

The hazard information required on the pesticide label is reproduced below.

CAUTION

Harmful if swallowed.

This product is highly toxic to birds and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate or by disposal of wastes.

Metalaxyl is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

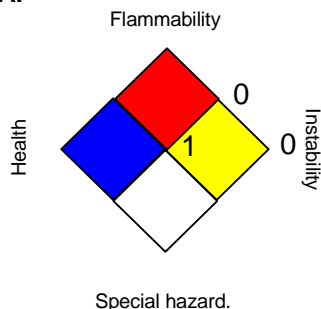
Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional office of the EPA.

This compound is highly toxic to bees exposed directly (contact).

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	1*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight, 2 = Moderate,
3 = High
4 = Extreme, * = Chronic

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The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.