

Revision Date:  
05/10/2016

Replaces:  
05/24/2012

---

**SECTION 1. IDENTIFICATION**

Product name : WARDEN CEREALS WR

Unity # : 1416956

**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)

**1.4 Emergency telephone**

Emergency telephone: Chemtrec: 1 800-424-9300 (24 hrs)  
Medical Emergency: 1-877-242-7452 (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**

Eye irritation : Category 2B

Reproductive toxicity : Category 2

Acute aquatic toxicity : Category 2

Chronic aquatic toxicity : Category 1

Revision Date:  
05/10/2016Replaces:  
05/24/2012**GHS Label element**

Hazard pictograms



Signal Word

: Warning

Hazard Statements

: H320 Causes eye irritation.  
 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.  
 P264 Wash skin thoroughly after handling.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
 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 - 0.0385  
 lbs/gal Metalaxyl -  
 0.0513 lbs/gal  
 lidacloprid - 0.259 lb/gal

Ipconazole - 4.61 gm/L  
 Metalaxyl - 6.15 gm/L  
 lidacloprid - 31 gm/L

**Hazardous ingredients**

Revision Date:  
05/10/2016Replaces:  
05/24/2016

Chemical Name	CAS-No.	Concentration (% w/w)
ethane-1,2-diol	107-21-1	>= 20 - < 30
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	>= 10 - < 20
Imidacloprid	138261-41-3	>= 1 - < 5
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.  
May cause an allergic skin reaction.  
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  
(CO<sub>2</sub>) Dry chemical
- 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 : In the event of fire, wear self-contained breathing apparatus.

Revision Date:  
05/10/2016Replaces:  
05/24/2016

fire-fighters

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 con- centration	Basis
ethane-1,2-diol	107-21-1	C	50 ppm 125 mg/m <sup>3</sup>	OSHA P0
		C	100 mg/m <sup>3</sup>	ACGIH
		C (Aerosol only)	100 mg/m <sup>3</sup>	ACGIH
Distillates (petroleum), solvent- dewaxed heavy paraffinic	64742-65-0	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
		TWA (Inhal- able fraction)	5 mg/m <sup>3</sup>	ACGIH
		TWA	5 mg/m <sup>3</sup>	OSHA P0
		TWA (Mist)	5 mg/m <sup>3</sup>	NIOSH REL
		ST (Mist)	10 mg/m <sup>3</sup>	NIOSH REL
		TWA (Mist)	5 mg/m <sup>3</sup>	OSHA P0

**Hazardous components without workplace control parameters**

Ingredients	CAS-No.
Imidacloprid	138261-41-3
methyl N-(2,6-dimethylphenyl)-	57837-19-1

Revision Date:  
05/10/2016Replaces:  
05/24/2016

N-(methoxyacetyl)-DL-alaninate	
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

: No data available

: No data available

Flash point : > 93 °C

Upper explosion limit : No data available

Lower explosion limit : No data available

Revision Date:  
05/10/2016Replaces:  
05/24/2012

---

Vapor pressure	: No data available
Relative vapor density	: No data available
Relative density	: No data available
Density	: 1.051 g/cm <sup>3</sup> (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 reac- tions	: Will not occur.
Conditions to avoid	: None known.
Incompatible materials	: None known.
Hazardous decomposition prod- ucts	: Thermal decomposition can lead to release of irritating gases and vapors.

---

**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity****Product:**

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

Revision Date:  
05/10/2016Replaces:  
05/24/2012

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.52 mg/l  
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  
GLP: yes

**Skin corrosion/irritation****Product:**

Exposure time: 72 h  
Result: slight irritation

**Ingredients:****Ipconazole:**

Revision Date:  
05/10/2016

Replaces:  
05/24/2012

---

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 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 -	: In vitro tests did not show mutagenic effects



**WINFIELD™****WARDEN CEREALS WR**Revision Date:  
05/10/2016Replaces:  
05/24/2016

Assessment

**Carcinogenicity****Ingredients:****Distillates (petroleum), solvent-dewaxed heavy paraffinic:**

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

**Ipconazole:**

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

**IARC**

Group 1: Carcinogenic to humans

Distillates (petroleum), solvent-dewaxed heavy paraffinic 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 carcinogen by OSHA.

**NTP**

Known to be human carcinogen

Distillates (petroleum), solvent-dewaxed heavy paraffinic 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:**

Remarks: No data available

**STOT-repeated exposure****Ingredients:****Ipconazole:**

Target Organs: Eyes

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

**WINFIELD™****WARDEN CEREALS WR**Revision Date:  
05/10/2016Replaces:  
05/24/2012**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/m<sup>3</sup>  
 GLP: yes

**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

Revision Date:  
05/10/2016Replaces:  
05/24/2012

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:**

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

**WINFIELD™****WARDEN CEREALS WR**Revision Date:  
05/10/2016Replaces:  
05/24/2012**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

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

**SECTION 14. TRANSPORT INFORMATION****Domestic regulation****49 CFR**

UN/ID/NA number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID,  
N.O.S.

(Imidacloprid, Ipconazole)

Class : 9

Packing group : III

Labels : CLASS 9

ERG Code : 171

Marine pollutant : yes(Imidacloprid, Ipconazole)

Remarks : RQ may apply  
Not regulated by DOT and TDG if shipped or transported in packaging less than 450 liters by road and/or rail. Please refer to 49 CFR for any details.**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 302**

:

ethylene oxide	75-21-8	0.0001 %
ethane-1,2-diol	107-21-1	27.6 %

**California Prop. 65**

WARNING! This product contains a chemical known in the

**WINFIELD™****WARDEN CEREALS WR**

	State of California to cause cancer.
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0
quartz (SiO <sub>2</sub> ) (Fr = 100%)	14808-60-7
acetaldehyde	75-07-0
ethylene oxide	75-21-8
1,4-dioxane	123-91-1

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
----------------	---------

**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**

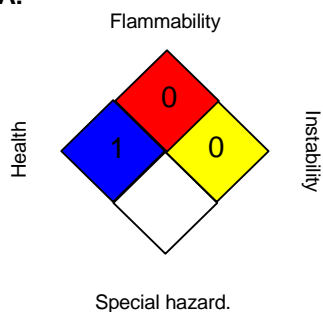
Harmful if swallowed.

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

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.

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.

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.

**SECTION 16. OTHER INFORMATION****Further information****NFPA:****HMIS III:**

<b>HEALTH</b>	<b>1*</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

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

Revision Date : 05/10/2016

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.