



**VOLUNTARY PURCHASING GROUPS, INC.**

## **Safety Data Sheet Hi-Yield Turf Ranger II**

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### **SECTION 1: Identification**

#### **Product identifier**

Product name Hi-Yield Turf Ranger II

Product number 32422; 32423

#### **Other means of identification**

EPA Reg. No. 279-3636-7401

#### **Recommended use of the chemical and restrictions on use**

Insecticide

#### **Supplier's details**

Name Voluntary Purchasing Groups, Inc.  
Address 230 FM 87  
Bonham, TX 75418  
USA

Telephone 855-270-4776

#### **Emergency phone number(s)**

In the event of a medical or chemical emergency contact ChemTel, Inc.  
North American 1-800-255-3924 or worldwide Intl. + 01-813-248-0585

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### **SECTION 2: Hazard identification**

#### **Classification of the substance or mixture**

#### **GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)**

- Acute toxicity, oral (C.4.1), Cat. 4
- Acute toxicity, inhalation (C.4.3), Cat. 4
- Carcinogenicity (C.4.9), Cat. 2
- Eye damage/irritation (C.4.5), Cat. 2B
- Sensitization, skin (C.4.7), Cat. 1B

#### **GHS label elements, including precautionary statements**

#### **Pictogram**

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### Signal word

### Warning

#### Hazard statement(s)

H302 Harmful if swallowed  
H317 May cause an allergic skin reaction  
H320 Causes eye irritation  
H332 Harmful if inhaled  
H351 Suspected of causing cancer

#### Precautionary statement(s)

P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 Wash face, hands, and any exposed skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P302+P352 IF ON SKIN: Wash with plenty of water and soap.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362 Take off contaminated clothing.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.  
P330 Rinse mouth.  
P405 Store locked up.  
P501 Dispose of contents/container according to label directions.

#### Other hazards which do not result in classification

No hazards not otherwise classified were identified.

Very toxic to aquatic life with long lasting effects. May be harmful in contact with skin.

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## SECTION 3: Composition/information on ingredients

### Mixtures

Chemical Family: Pyrethroid

### Hazardous components

#### 1. Bifenthrin

Concentration 0.115 % (weight)  
CAS no. 82657-04-3

#### 2. Cypermethrin

Concentration 0.029 % (weight)

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|           |              |
|-----------|--------------|
| EC no.    | 257-842-9    |
| CAS no.   | 52315-07-8   |
| Index no. | 607-433-00-X |

- Acute toxicity, Cat. 4
- Specific target organ toxicity (single exposure) (C.4.11), Cat. 3
- Skin corrosion/irritation (C.4.4), Cat. 2
- Sensitization, skin (C.4.7), Cat. 1
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

|      |                                                      |
|------|------------------------------------------------------|
| H302 | Harmful if swallowed                                 |
| H315 | Causes skin irritation                               |
| H317 | May cause an allergic skin reaction                  |
| H335 | May cause respiratory irritation                     |
| H400 | Very toxic to aquatic life                           |
| H410 | Very toxic to aquatic life with long lasting effects |

### 3. Acetic acid, C9-11-branched alkyl esters, C10-rich

|               |                |
|---------------|----------------|
| Concentration | < 1 % (weight) |
| CAS no.       | 108419-34-7    |

### 4. Cellulose, microcrystalline

|               |                |
|---------------|----------------|
| Concentration | < 1 % (weight) |
| CAS no.       | 9004-34-6      |

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## SECTION 4: First-aid measures

### Description of necessary first-aid measures

|                         |                                                                                                                                                                                                                                                                                            |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If inhaled              | Move to fresh air. If person is not breathing, call 911 (within the U.S. and Canada) or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.                                        |
| In case of skin contact | Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.                                                                                                                        |
| In case of eye contact  | Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.                                                  |
| If swallowed            | Call a poison control center or doctor immediately for treatment advice. Have 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 induce vomiting or give anything by mouth to an unconscious person. |

### Most important symptoms/effects, acute and delayed

Central nervous system effects.

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### Indication of immediate medical attention and special treatment needed, if necessary

This product contains a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

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## SECTION 5: Fire-fighting measures

### Suitable extinguishing media

Dry chemical, CO<sub>2</sub>, water spray or regular foam. Avoid heavy hose streams.

### Specific hazards arising from the chemical

None known

### Special protective actions for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate upwind.

### Further information

Explosion data:

Not sensitive to Mechanical Impact.

Not sensitive to Static Discharge.

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## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.

### Environmental precautions

Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.

### Methods and materials for containment and cleaning up

Methods for Containment: Use a wet sweeping compound or water to prevent dust formation. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Sweep up and shovel into suitable containers for disposal. Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

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## SECTION 7: Handling and storage

### Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

### Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep/store only in original container. Keep away from food, drink and animal feedingstuffs.

Incompatible products: Strong oxidizing agents, Fluorine, Chlorine trifluorine, Oxygen difluoride

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## SECTION 8: Exposure controls/personal protection

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### Control parameters

#### 1. Cellulose (CAS: 9004-34-6)

PEL (Inhalation): see PNOR (Cal/OSHA)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 2. Cellulose, Total dust (CAS: 9004-34-6)

PEL (Inhalation): 15 mg/m<sup>3</sup> (OSHA)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

PEL (Inhalation): 10 mg/m<sup>3</sup> (Cal/OSHA)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

REL (Inhalation): 10 mg/m<sup>3</sup> (NIOSH)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

#### 3. Cellulose, Respirable fraction (CAS: 9004-34-6)

PEL (Inhalation): 5 mg/m<sup>3</sup> (OSHA)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

PEL (Inhalation): 5 mg/m<sup>3</sup> (Cal/OSHA)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

REL (Inhalation): 5 mg/m<sup>3</sup> (NIOSH)  
OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

### Appropriate engineering controls

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

### Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

#### Skin protection

Wear long-sleeved shirt, long pants, socks, and shoes.

#### Respiratory protection

For dust, splash, mist or spray exposures wear a filtering mask.

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## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

|                                               |                                      |
|-----------------------------------------------|--------------------------------------|
| Appearance/form (physical state, color, etc.) | Granules                             |
| Odor                                          | No data available.                   |
| Odor threshold                                | No data available.                   |
| pH                                            | 7.15 @ 22.1C (1 suspension in water) |
| Melting point/freezing point                  | No data available.                   |
| Initial boiling point and boiling range       | No data available.                   |
| Flash point                                   | No data available.                   |
| Evaporation rate                              | No data available.                   |
| Flammability (solid, gas)                     | No data available.                   |
| Upper/lower flammability limits               | No data available.                   |

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|                                        |                                                                                                                                                     |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Vapor pressure                         | No data available.                                                                                                                                  |
| Vapor density                          | No data available.                                                                                                                                  |
| Relative density                       | No data available.                                                                                                                                  |
| Solubility(ies)                        | No data available.                                                                                                                                  |
| Partition coefficient: n-octanol/water | No data available.                                                                                                                                  |
| Auto-ignition temperature              | No data available.                                                                                                                                  |
| Decomposition temperature              | No data available.                                                                                                                                  |
| Viscosity                              | No data available.                                                                                                                                  |
| Explosive properties                   | No data available.                                                                                                                                  |
| Oxidizing properties                   | Based on known chemistry, neither the active ingredients nor the inert ingredients are considered to be either strong oxidizing or reducing agents. |

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## SECTION 10: Stability and reactivity

### Reactivity

Not applicable

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

None under normal processing.

### Conditions to avoid

None known

### Incompatible materials

Strong oxidizing agents, Fluorine, Chlorine trifluoride, Oxygen difluoride.

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

Acute toxicological data presented below is based on testing of the active ingredient [Zeta-cypermethrin/Bifenthrin 1:4 16.25% SFR MUP] only.

LD50 Oral 727.3 mg/kg

LD50 Dermal > 5000 mg/kg

LC50 Inhalation > 2.11 mg/L 4 hr (Rat, male and female)

#### Skin corrosion/irritation

Slightly irritating.

#### Serious eye damage/irritation

Mildly irritating.

#### Respiratory or skin sensitization

Sensitizer

#### Carcinogenicity

Bifenthrin: Weak treatment-related response for liver adenocarcinomas and benign bladder tumors (lesion) in male mice.

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Cypermethrin caused an increase in benign lung tumors in mice, but not in rats. EPA has classified cypermethrin as a possible human carcinogen based on this information, but does not regulate based on its low cancer risk.

#### Reproductive toxicity

Bifenthrin, Zeta-cypermethrin: No toxicity to reproduction in animal studies.

#### STOT-single exposure

Causes damage to organs. See listed target organs below.

#### STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure. See listed target organs below.

#### Aspiration hazard

No information available.

#### Additional information

Target organ effects Central Nervous System (CNS), blood Thyroid, liver.

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## SECTION 12: Ecological information

#### Toxicity

Bifenthrin

LC50 - Fish - 0.1 µg/L - 96h

Bifenthrin

LC50 - Fish - 0.1 µg/L - 96h

Bifenthrin

EC50 - Algae - 0.822 mg/L - 72h

Bifenthrin

EC50 - Crustacea - 0.11 µg/L - 48h

Bifenthrin

NOEC - Fish - 0.012 µg/L - 21d

Bifenthrin

NOEC - Crustacea - 0.0013 µg/L - 21d

Cypermethrin

EC50 - Crustacea - 0.14 µg/L - 48h

Cypermethrin

LC50 - Fish - 0.69 µg/L - 96h

Cypermethrin

EC50 - Algae - >1 mg/L - 72h

Cypermethrin

NOEC - Crustacea - 0.01 µg/L - 21d

Cypermethrin

NOEC - Fish - 0.015 µg/L - 21d

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### Persistence and degradability

Bifenthrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable.  
Zeta-cypermethrin: Non-persistent, Readily hydrolyzed, Not readily biodegradable.

### Bioaccumulative potential

Bifenthrin: The substance has a potential for bioconcentration.  
Zeta-cypermethrin: The substance does not have a potential for bioconcentration.

### Mobility in soil

Bifenthrin, Zeta-cypermethrin: Immobile, Not expected to reach groundwater.

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## SECTION 13: Disposal considerations

### Disposal of the product

Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.

### Disposal of contaminated packaging

Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

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## SECTION 14: Transport information

### DOT (US)

Not regulated for transportation if shipped in Non Bulk packaging. The classification below pertains to the shipment in Bulk packaging.

UN Number: UN3077

Class: 9

Packing Group: III

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.

Marine pollutant: Bifenthrin, Zeta-cypermethrin.

UN3077, Environmentally hazardous substances, solid, n.o.s. (Bifenthrin, Zeta-cypermethrin), 9, III

### IMDG

UN/ID No: UN3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.

Hazard class: 9

Packing Group: III

EmS No: F-A, S-F

Marine Pollutant: Bifenthrin, Zeta-cypermethrin

UN3077, Environmentally hazardous substances, solid, n.o.s. (Bifenthrin, Zeta-cypermethrin), 9, III

### IATA

UN/ID No: UN3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.

Hazard class: 9

Packing Group: III

Limited quantity: 30kg

UN3077, Environmentally hazardous substances, solid, n.o.s. (Bifenthrin, Zeta-cypermethrin), 9, III

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### SECTION 15: Regulatory information

**Safety, health and environmental regulations specific for the product in question**

**Massachusetts Right To Know Components**

Chemical name: Bifenthrin

CAS number: 82657-04-3

**New Jersey Right To Know Components**

Common name: BIPHENTHRIN

CAS number: 82657-04-3

**New Jersey Right To Know Components**

Common name: CELLULOSE

CAS number: 9004-34-6

**Pennsylvania Right To Know Components**

Chemical name: Cellulose

CAS number: 9004-34-6

**SARA 313 Components**

Chemical name: Bifenthrin

CAS number: 82657-04-3

Weight %: 0.115

SARA 313 - Threshold Values %: 1.0

**SARA 311/312 Hazards**

Acute health hazard Yes

Chronic health hazard Yes

Fire hazard No

Sudden release of pressure hazard No

Reactive Hazard No

**California Prop. 65 Components**

This product does not contain any Proposition 65 chemicals.

**HMIS Rating**

| Hi-Yield Turf Ranger II |     |
|-------------------------|-----|
| HEALTH                  | * 2 |
| FLAMMABILITY            | 0   |
| PHYSICAL HAZARD         | 0   |
| PERSONAL PROTECTION     | X   |

**NFPA Rating**



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### SECTION 16: Other information

**Safety Data Sheet**  
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