



VOLUNTARY PURCHASING GROUPS, INC.

Safety Data Sheet Hi-Yield Turf Ranger II

SECTION 1: Identification

GHS Product identifier

Product name	Hi-Yield Turf Ranger II
Product number	32422; 32423
Brand	Hi-Yield

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

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

SECTION 2: Hazard identification

Classification of the substance or mixture

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

- Acute toxicity, oral, Cat. 4
- Acute toxicity, inhalation, Cat. 4
- Carcinogenicity, Cat. 2
- Eye damage/irritation, Cat. 2B
- Sensitization, skin, Cat. 1B

GHS label elements, including precautionary statements

Pictograms



Safety Data Sheet

Hi-Yield Turf Ranger II

Signal word

Warning

Hazard statement(s)

H302
H317
H320
H332
H351

Harmful if swallowed
May cause an allergic skin reaction
Causes eye irritation
Harmful if inhaled
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.

P102

Keep out of reach of children.

P103

Read label before use.

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.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical Family: Pyrethroid

Hazardous components

Component	Concentration
Bifenthrin (CAS no.: 82657-04-3)	0.115 %
CLASSIFICATIONS: No data available. HAZARDS: No data available.	
Cypermethrin (CAS no.: 52315-07-8; EC no.: 257-842-9; Index no.: 607-433-00-X)	0.029 %
CLASSIFICATIONS: Acute toxicity, Cat. 4; Specific target organ toxicity (single exposure), Cat. 3; Skin corrosion/irritation, Cat. 2; Sensitization, skin, Cat. 1; Hazardous to the aquatic environment, short-term (acute), Cat. 1; Hazardous to the aquatic environment, long-term (chronic), Cat. 1. HAZARDS: 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.	
Acetic acid, c9-11-branched alkyl esters, c10-rich (CAS no.: 108419-34-7)	< 1 %
CLASSIFICATIONS: No data available. HAZARDS: No data available.	
Cellulose, microcrystalline (CAS no.: 9004-34-6)	< 1 %
CLASSIFICATIONS: No data available. HAZARDS: No data available.	

Safety Data Sheet

Hi-Yield Turf Ranger II

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.

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.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Dry chemical, CO₂, 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.

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.

Safety Data Sheet

Hi-Yield Turf Ranger II

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.

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

SECTION 8: Exposure controls/personal protection

Control parameters

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

PEL (Inhalation): see PNOR (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

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

PEL (Inhalation): 15 mg/m³ (OSHA)

OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 10 mg/m³ (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 10 mg/m³ (NIOSH)

OSHA Annotated Table Z-1, www.osha.gov

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

PEL (Inhalation): 5 mg/m³ (OSHA)

OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 5 mg/m³ (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 5 mg/m³ (NIOSH)

OSHA Annotated Table Z-1, 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

Safety Data Sheet

Hi-Yield Turf Ranger II

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

Respiratory protection

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

SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.)	Granules
Odor	Mild detergent odor
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 or explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	55.43 lb/cu ft
Solubility(ies)	Dispersible in water
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Additional properties	
Physical state	Solid
Color	Gray
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.

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 trifluorine, Oxygen difluoride.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Safety Data Sheet

Hi-Yield Turf Ranger II

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.

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.

Specific target organ toxicity (STOT) - single exposure

Causes damage to organs. See listed target organs below.

Specific target organ toxicity (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.

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

Safety Data Sheet

Hi-Yield Turf Ranger II

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

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.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

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.

Packaging disposal

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

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.

Safety Data Sheet

Hi-Yield Turf Ranger II

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

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

Safety Data Sheet

Hi-Yield Turf Ranger II

NFPA Rating



SECTION 16: Other information

Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall [COMPANY NAME] be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if [COMPANY NAME] has been advised of the possibility of such damages.