VOLUNTARY PURCHASING GROUPS, INC.

Safety Data Sheet
Hi-Yield Bug Blaster II Bifenthrin 2.4

SECTION 1: Identification

GHS Product identifier

Product name	Hi-Yield Bug Blaster II Bifenthrin 2.4
Product number	32397
Brand	Hi-Yield

Other means of identification
EPA Reg. No. 53883-178-7401

Recommended use of the chemical and restrictions on use
Insecticide; See product label for a complete list of uses and use sites.

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 or 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, inhalation, Cat. 4
- Toxic to reproduction, Cat. 1B

GHS label elements, including precautionary statements

Pictograms

Signal word **Danger**

Hazard statement(s)

H332	Harmful if inhaled
H360	May damage fertility or the unborn child.

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with Federal, state and local laws and regulations.
P102	Keep out of reach of children.
P103	Read label before use.

Statement regarding ingredients of unknown toxicity

The following percentage of the mixture consists of components with unknown hazards regarding the acute toxicity:

10.0%	Acute oral toxicity
10.0%	Acute dermal toxicity
47.55%	Acute inhalation toxicity
10.0%	Eye irritation
10.0%	Skin irritation
10.0%	Skin sensitization

SECTION 3: Composition/information on ingredients

Mixtures

Hazardous components

Component	Concentration
Bifenthrin (CAS no.: 82657-04-3)	**2.4 %**
CLASSIFICATIONS: No data available. HAZARDS: No data available.	
N-methyl-2-pyrrolidone (CAS no.: 872-50-4; EC no.: 212-828-1; Index no.: 606-021-00-7)	**<= 1.5 - >= 4 %, Trade secret***
CLASSIFICATIONS: Serious eye damage/eye irritation, Cat. 2; Skin corrosion/irritation, Cat. 2. HAZARDS: H315 - Causes skin irritation; H319 - Causes serious eye irritation.	

Trade secret statement (OSHA 1910.1200(i))

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

Description of necessary first-aid measures

If inhaled	Move person to fresh air. If 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.
In case of skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 1 5 to 20 minutes. Call a poison control center or doctor for treatment advice.

In case of eye contact	Hold eye 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 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 give anything by mouth to an unconscious person. NOTE TO PHYSICIAN: This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

Most important symptoms/effects, acute and delayed
Gastrointestinal discomfort. Allergic skin reaction.

Indication of immediate medical attention and special treatment needed, if necessary
This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine 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
Foam, dry chemical, carbon dioxide or water spray

Unsuitable Extinguishing Media: Water jet

Specific hazards arising from the chemical
Hazardous Combustion Products: Thermal decomposition may produce toxic carbon and nitrogen oxides and cyanide.

Special Protective Equipment & Precautions: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear self-contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear).

Unusual Fire & Explosion Hazards: None known

Special protective actions for fire-fighters
Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear selfcontained breathing apparatus and full fire-fighting turn-out gear
(Bunker gear).

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
See Section 8 for personal protection equipment.

Environmental precautions
Keep spilled material and any rinsate from contaminating soil or from entering sewage and drainage systems and bodies of water.

Methods and materials for containment and cleaning up

Methods for Containment: Isolate the spill area. Keep unnecessary and unprotected personnel from entering. Absorb small spills with sand, vermiculite or other inert absorbent. Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify and scrape up for disposal.

Methods for Clean-up: Place contaminated material in appropriate container for disposal. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not put spilled material back in the original container.

Reference to other sections

Section 8

SECTION 7: Handling and storage

Precautions for safe handling

RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this product. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes.

Conditions for safe storage, including any incompatibilities

See pesticide label for full information on product storage. Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals.

Storage Temperature (Min/Max): Not determined but avoid extreme temperatures.

Product Incompatibilities: Avoid contact with strong oxidizers.

SECTION 8: Exposure controls/personal protection

Control parameters

1. N-methyl-2-pyrrolidone (CAS: 872-50-4 EC: 212-828-1)

BEI - urine: 100 mg/L* (ACGIH)
*Parameters: 5-hydroxy-N-methyl-2-pyrrolidone; end of shift (as soon as possible after exposure ceases)

Appropriate engineering controls

Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

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

Eye/face protection

Chemical goggles or safety glasses and full-face shield.

Skin protection

Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.

Body protection

Long-sleeved shirt, long pants and chemical resistant footwear plus socks.

Respiratory protection
In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for pesticides.

SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.)	White liquid
Odor	Mild chemical odor
Odor threshold	Not determined
pH	3.5
Melting point/freezing point	Not determined
Initial boiling point and boiling range	Not determined
Flash point	Not flammable
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	Not determined
Vapor pressure	Not determined
Vapor density	Not determined
Relative density	0.986 (typical)
Solubility(ies)	Miscible
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
Viscosity	Not determined

Additional properties

Physical state	Liquid
Color	White
Explosive properties	Not determined

SECTION 10: Stability and reactivity

Reactivity
No hazardous chemical reactions known.

Chemical stability
Stable under normal storage and handling conditions.

Possibility of hazardous reactions
No potential for hazardous reactions known.

Conditions to avoid
Extreme temperatures

Incompatible materials
Strong oxidizers

Hazardous decomposition products
Thermal decomposition may produce toxic carbon and nitrogen oxides and cyanide.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Likely Routes of Exposure:	Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure:	Gastrointestinal discomfort

Oral LD50:	>4,800 mg/kg (Estimated based upon component data)
Dermal LD50:	>3,600 mg/kg (Estimated based upon component data)
Inhalation LC50:	>4.8 mg/L (Estimated based upon component data)

Skin corrosion/irritation
Not anticipated to causes skin irritation based upon component data.

Serious eye damage/irritation
Not anticipated to causes eye irritation based upon component data.

Respiratory or skin sensitization
Not anticipated to causes skin sensitization based upon component data.

Germ cell mutagenicity
No data available

Carcinogenicity
The EPA considers bifenthrin to be a possible human carcinogen based upon animal studies.

Reproductive toxicity
N-methyl-2-pyrrolidone is considered a developmental toxicant.

Specific target organ toxicity (STOT) - single exposure
No data available

Specific target organ toxicity (STOT) - repeated exposure
No data available

Aspiration hazard
Not anticipated to be an aspiration hazard.

Additional information
N-methyl-2-pyrrolidone can cause vomiting, diarrhea and abdominal pain after prolonged or repeated exposure. Rats exposed to 1-methyl-2-pyrrolidone at a concentration of 1 mg/L as an aerosol for 10 days showed depletion of hematopoietic cells in the bone marrow and atrophy of the lymphoid tissues of the thymus, spleen and lymph nodes.

SECTION 12: Ecological information

Toxicity

ECOTOXICITY DATA:	The data presented below is for bifenthrin technical.
Fish Toxicity:	Rainbow trout: 96 hr LC50 = 0.00015 ppm
Bluegill sunfish: 96 hr LC50 = 0.00035 ppm	
Aquatic Invertebrate Toxicity:	No data available
Aquatic Plant Toxicity:	No data available
Avian Toxicity:	Bobwhite quail: Oral LD50 = 1,800 mg/kg
Mallard duck: Oral LD50 = 2,150 mg/kg	
Honeybee Toxicity:	Highly toxic

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects
No data available

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Refer to the pesticide label for full information on disposal. Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Packaging disposal
Refer to the pesticide label for full information on disposal. When possible, triple rinse the container and offer for recycling if available.

Waste treatment
It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: Transport information

DOT (US)
Not regulated

IMDG
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII

IATA
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII

SECTION 15: Regulatory information

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

Labeling Requirements Under FIFRA
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 is the hazard information as required on the pesticide label:

CAUTION
Harmful is swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Toxic Substances Control Act (TSCA) Inventory
This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

SARA 311/312 Hazards
Acute (Immediate); Chronic (Delayed)

SARA 313 Components
Section 313 – This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %

Bifenthrin	82657-04-3	7.9%
N-methyl-2-pyrrolidone	872-50-4	1.5 – 4.0%

California Prop. 65 components
Chemical name: N-methyl-2-pyrrolidone
CAS number: 872-50-4
06/15/2001 - developmental
06/15/2001 - Developmental toxicity

New Jersey Right To Know Components
Common name: Biphenthrin
CAS number: 82657-04-3

New Jersey Right To Know Components
Common name: 1-Methyl-2-pyrrolidone
CAS number: 872-50-4

Massachusetts Right To Know Components
Chemical name: N-methyl-2-pyrrolidone
CAS number: 872-50-4

Massachusetts Right To Know Components
Chemical name: Bifenthrin
CAS number: 82657-04-3

Pennsylvania Right To Know Components
Chemical name: 2-Pyrrolidinone, 1-methyl- 2,beta-butoxyethoxyethyl chloride
CAS number: 872-50-4

NFPA Rating

SECTION 16: Other information

Environmental Hazards Statement from FIFRA Regulated Pesticide Label:
This pesticide is extremely toxic to fish and aquatic invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift onto blooming crops if bees are visiting the treatment area.

Further information/disclaimer
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