

MATERIAL SAFETY DATA SHEET

UP-STAR GOLD INSECTICIDE/MITICIDE

Version: 1

Date Issued: 2/17/2004

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company: United Phosphorus, Inc.
423 Riverview Plaza
Trenton, NJ 08611

Product Information: 1-800-247-1557 or www.upi-usa.com

Product Name: UP-STAR GOLD INSECTICIDE

Product use: Insecticide/Miticide

FOR MEDICAL EMERGENCIES, contact the National Pesticide Information Center at 1-800-858-7378
FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

<u>CHEMICAL NAME</u>	<u>CAS#</u>	<u>WT. %</u>	<u>PEL/TLV</u>
Bifenthrin: (2-methyl[1,1'-biphenyl]3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)- 2,2-dimethylcyclopropanecarboxylate	82657-04-3	7.9	None
Glycerin	56-81-5	<1.0	10.0 mg/m ³
Water		<85	None
Proprietary inert materials		<15	None

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION

IMMEDIATE CONCERNS:

- Eggshell white liquid with a bland odor.
- Slightly combustible. May support combustion at elevated temperatures.
- Thermal decomposition may form toxic by-products.
- For large exposures or fire, wear personal protective equipment.
- Highly toxic to fish and aquatic organisms. Keep out of drains and water courses.
- Moderately toxic if inhaled.

POTENTIAL HEALTH EFFECTS: Effects from overexposure result from either swallowing or coming into contact with the skin. Symptoms of overexposure include bleeding from the nose, tremors and convulsions. Contact with this product may occasionally produce skin sensations such as rashes, numbing, burning and tingling. These sensations are reversible and usually subside within 12 hours.

MEDICAL CONDITIONS AGGRAVATED: None presently known.

SECTION 4 FIRST AID MEASURES

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.

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.

IF ON SKIN OR CLOTHING:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 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.

NOTE TO PHYSICIAN: This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine

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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

FLASH POINT (method):	Est. >100°C (> 212°F)
EXTINGUISHING MEDIA:	Foam, CO ₂ or dry chemical. Soft stream water fog only if necessary. Contain all runoff.
EXPLOSION HAZARDS:	Slightly combustible. This material may support combustion at elevated temperatures.
FIRE FIGHTING PROCEDURES:	Isolate fire area. Evacuate downwind. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke, gases or vapors generated.
HAZARDOUS DECOMPOSITION PRODUCTS:	Heat and fire may result in thermal decomposition and the release of carbon monoxide, carbon dioxide, chlorine, fluorine, hydrogen chloride and hydrogen fluoride.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8, "Exposure Controls/Personal Protection". Keep unprotected persons and animals out of area.

Keep material out of lakes, streams, ponds and sewer drains. Dike to confine spill and absorb with an absorbent such as clay, sand or soil. Vacuum, shovel or pump waste into a drum and label contents for disposal.

To clean and neutralize spill area, tools and equipment, wash with a suitable solution of caustic or soda ash, and an appropriate alcohol (i.e., methanol, ethanol or isopropanol). Follow this by washing with a strong soap and water solution. Absorb, as above, any excess liquid and add to the drums of waste already collected. Repeat if necessary. Dispose of drummed waste according to the method outlined in Section 13, "Disposal Considerations".

SECTION 7 HANDLING AND STORAGE

Store in a cool, dry, well-ventilated place. Do not use or store near heat, open flame or hot surfaces. Store in original containers only. Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust at all process locations where vapor or mist may be emitted. Ventilate all transport vehicles prior to unloading.

PERSONAL PROTECTIVE EQUIPMENT: For individuals whose use or handling of this product is not guided by the product label. PPE for mixing and applying this product are prescribed on the product label.

EYES AND FACE: For splash, mist or spray exposure, wear chemical protective goggles or a face shield.

RESPIRATORY: For splash, mist, or spray exposure, wear, as a minimum, a properly fitted air-purifying respirator with an organic vapor cartridge or canister with any R, P or HE pre-filter (approved by U.S. NIOSH/MSHA, EU CEN or comparable certification organization). Respirator use and selection must be based on airborne concentrations.

PROTECTIVE CLOTHING: Depending upon concentrations encountered, wear coveralls or long-sleeved uniform and head covering. For larger exposures as in the case of spills, wear full body covered barrier suit, such as a PVC suit. Leather items such as shoes, belts and watch bands that become contaminated should be removed and destroyed. Launder all work clothing before reuse (separately from household laundry).

GLOVES: Wear chemical protective gloves made of materials such as rubber, neoprene or PVC. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

WORK HYGIENE PRACTICES: Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking or using tobacco. Shower at the end of the work day.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Bland odor
APPEARANCE: Eggshell white liquid
pH: 5.5-6.5
SOLUBILITY IN WATER: Disperses
SPECIFIC GRAVITY: 1.039 g/ml
WEIGHT PER VOLUME: 8.66 lb./gal

SECTION 10 STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Excessive heat and fire.
STABILITY: Stable.
POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

DERMAL LD₅₀: >2000 mg/kg (rabbit)
ORAL LD₅₀: 632 mg/kg (rat)
INHALATION LC₅₀: 11.58 mg/L/1 hr (rat)

ACUTE EFFECTS FROM OVEREXPOSURE: This product has moderate inhalation, and low oral and dermal toxicity. It is practically non-irritating to the eyes and non-irritating to the skin. Large doses of Bifenthrin Technical ingested by laboratory animals produced signs of toxicity including convulsions, tremors and bloody nasal discharge. Bifenthrin Technical does not cause acute delayed neurotoxicity. Contact with bifenthrin products may occasionally produce skin sensations, such as rashes, numbing, burning or tingling, which are reversible and usually subside with 12 hours.

CHRONIC EFFECTS FROM OVEREXPOSURE: No data are available for this formulated product. In studies with laboratory animals, Bifenthrin Technical did not cause reproductive toxicity or teratogenicity. Tremors were associated with repeated exposure of laboratory animals to Bifenthrin Technical. In lifetime feeding studies conducted with rodents, a slight increase in the incidence of urinary bladder tumors at the highest dose in male mice was considered to be an equivocal response, not evidence of a clear compound-related effect. The overall absence of genotoxicity has been demonstrated in mutagenicity tests with bifenthrin.

CARCINOGENICITY:

IARC: Not listed
NTP: Not listed
OSHA: Not listed

SECTION 12 ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Bifenthrin Technical has moderate stability in the soil over a wide pH range and degrades at a slow rate which is governed by soil characteristics. Bifenthrin will also persist in aquatic sediments. Bifenthrin has a high Log Pow (>6.0), a high affinity for organic matter, and is not mobile in soil. Therefore, there is little potential for movement into ground water. There is the potential for bifenthrin to bioconcentrate (BCF = 11,750)

ECOTOXICOLOGICAL INFORMATION: Bifenthrin Technical is highly toxic to fish and aquatic arthropods and LC50 values range from 0.0038 to 17.8 µ/L. In general, the aquatic arthropods are the most sensitive species. Care should be taken to avoid contamination of the aquatic environment. Bifenthrin had no effect on mollusks at its limit of water solubility. Bifenthrin is only slightly toxic to both water fowl and upland game birds (LD50 values range from 1,800 mg/kg to >2,150 mg/kg).

SECTION 13 DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Open dumping or burning of this material or its packaging is prohibited. If spilled material cannot be disposed of by use according to instructions, an acceptable method of disposal is to incinerate in accordance with local, state and national environmental laws, rules, standards and regulations. However, because acceptable methods of disposal may vary by location and regulatory requirements may change, the appropriate agencies should be contacted prior to disposal.

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EMPTY CONTAINER: Non-returnable containers which held this material should be cleaned prior to disposal by triple rinsing. Containers which held this material may be cleaned by being triple rinsed, and recycled, with rinsate being incinerated. Vapors that form may create an explosion hazard

SECTION 14 TRANSPORT INFORMATION

U.S. Department of Transportation (DOT)

REPORTABLE QUANTITY: None
U.S. SURFACE FREIGHT CLASS: Insecticides, NOI, other than Poison. NMFC Item 102120
MARINE POLLUTANT #1: Bifenthrin (Severe Marine Pollutant)
OTHER SHIPPING INFORMATION: When shipped by highway, railroad or air in packages <119 gal (450 L) in volume: Not regulated.
Non-bulk packages by water and bulk packages by highway, railroad or water, the material is Class 9: Environmentally hazardous substances, liquid, n.o.s. (bifenthrin, 7.9%), 9, UN3082, III, NAERG Guide 171

SECTION 15 REGULATORY INFORMATION

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORISATION ACT)

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):

Not listed

SECTION 311 HAZARD CATEGORIES (40 CFR 370):

Immediate, Delayed.

SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):

The threshold planning quantity (TPQ) for this product, if treated as a mixture, is 10,000 lbs.

This product contains the following ingredients with a TPQ of less than 10,000 lbs.: None.

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):

This product contains the following ingredients subject to Section 313 reporting requirements:
bifenthrin

SECTION 16 OTHER INFORMATION

NFPA RATING	HEALTH	FLAMMABILITY	REACTIVITY	OTHERS
	2	0	0	None

Least – 0, Slight – 1, Moderate – 2, High – 3, Extreme – 4. These values are obtained using professional judgment and were not available in the guidelines or published evaluations prepared by the National Fire Protection Association.

THIS INFORMATION IN THIS MSDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT UNITED PHOSPHORUS, INC. TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, UNITED PHOSPHORUS, INC. EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE.

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

REVISION SUMMARY: New