



# Material Safety Data Sheet

## United Phosphorus, Inc.

<b>NFPA</b>	<b>PPE</b>		

Issued Date 03-Nov-2008

Revision Date 24-Nov-2008

Revision Number: 2

12U-135A - UP-Star EC TT&O

### 1. PRODUCT AND COMPANY IDENTIFICATION

**UPI**  
630 Freedom Business Center  
Suite 402  
King of Prussia, PA 19406

**Emergency Telephone Number**  
Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887  
Medical: Rocky Mountain Poison Control Center  
(866) 673-6671 (24hrs)

**Company Information**  
UPI

**Contact Information**  
Customer Service  
R&D Technical Service

**Phone Number**  
1-800-438-6071  
610-878-6100

**Available Hrs**  
8:00 am to 5:00 pm EST  
8:00 am - 5:00 pm (EST)

**Product Name** UP-Star EC TT&O  
**EPA Reg #** 70506-209  
**Recommended Use** termiteicide - insecticide  
**Product Code** 12U-135A

### 2. HAZARDS IDENTIFICATION

**Emergency Overview**

Aspiration hazard  
Harmful if swallowed  
Highly toxic to fish and aquatic organisms. Keep out of drains and water courses.

**Appearance** Clear, Yellow.

**Physical State** Liquid.

**Odor** Aromatic. Hydrocarbon.

**Potential Health Effects**

**Acute Effects**

Effects from overexposure result from either swallowing, inhaling, 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.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients Name**

Chemical Name	CAS-No	Weight %	OSHA PEL
Aromatic 100	64742-95-6	>35	N/A
mixture of methylesters of C16-C18 fatty acids and C18 unsaturated fatty acids	67762-38-3	26.76	N/A
Bifenithrin technical	82657-04-3	23.4	N/A

#### 4. FIRST AID MEASURES

##### Eye Contact

Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye.  
Call a poison control center or doctor for treatment advice.

##### Skin Contact

Take off contaminated clothing.  
Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes  
Call poison control center or doctor for treatment advice.

##### Inhalation

Move person to fresh air.  
If person is not breathing, call 911 or an ambulance, then give artificial respiration.  
Call a poison control center or doctor for further treatment advice.

##### Ingestion

Call a physician or Poison Control Center immediately  
Have person sip a glass of water if able to swallow  
Never give anything by mouth to an unconscious person  
Do not induce vomiting unless told to do so by a poison control center or doctor

##### Notes to Physician

This product is a pyrethroid and contains petroleum distillates. Treatment is symptomatic and supportive. Do not induce vomiting. Vomiting may cause aspiration pneumonia.

#### 5. FIRE-FIGHTING MEASURES

##### Flammable Explosive Properties

##### Flash Point

54°C / 129°F

##### Autoignition Temperature

Not available

##### Flammability Limits in Air

Not available

##### Extinguishing Media

Foam Carbon dioxide (CO2) Dry chemical

##### Fire/Explosion Hazard

Keep product and empty container away from heat and sources of ignition

##### Hazardous Combustion Products

Carbon monoxide, Carbon dioxide (CO2), Hydrogen chloride, hydrogen fluoride.

##### NFPA

Health 2

Flammability 1

Instability 0

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal Precautions

Avoid contact with the skin and the eyes. Use personal protective equipment.

<b>Environmental Precautions</b>	Keep material out of lakes, streams, ponds and sewer drains. Dike to confine spill and absorb with an absorbant such as clay, sand or soil. . Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits..
<b>Methods for Clean-up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Keep out of reach of children. Keep from freezing. Wear personal protective equipment. Keep away from heat, sparks and open flame. - No smoking. Remove and wash contaminated clothing before re-use.
<b>Storage</b>	Store at temperatures above 40 F ( 5 C). If crystals form, warm to room temperature 70 F(21 C) by room heating only for 24-48 hours, and shake occasionally until crystals dissolve and product appears uniform. Do not use external source of heat for warming containers. .

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

<b>Engineering Controls</b>	Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems. .
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### Personal Protective Equipment

#### Eye/face Protection

Where there is potential for eye contact have eye flushing equipment available.. Use eye protection to avoid eye contact. .

#### Skin Protection

Wear protective gloves/clothing.

#### Respiratory Protection

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134. .

### General Hygiene Considerations

Do not eat, drink or smoke when using this product. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear Yellow	<b>Odor</b>	Aromatic Hydrocarbon
<b>Physical State</b>	Liquid	<b>pH</b>	No data available
<b>Boiling Point/Range</b>	Not available	<b>Melting Point/Range</b>	Not available
<b>Specific Gravity</b>	Not available	<b>Solubility</b>	Emulsifies
<b>Evaporation Rate</b>	Not available	<b>Vapor Pressure</b>	Not available
<b>Vapor Density</b>	Not available	<b>VOC Content</b>	Not available
<b>Viscosity</b>	Not available	<b>Molecular Weight</b>	2.0 lb/gal
<b>Bulk Density</b>	No data available	<b>Percent Solids</b>	Not available
<b>Percent Volatiles</b>	Not available		

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions
<b>Conditions to Avoid</b>	Heat, flames and sparks

<b>Incompatible Materials</b>	No materials to be especially mentioned
<b>Hazardous Decomposition Products</b>	None under normal use
<b>Possibility of Hazardous Polymerization</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### **Component Information**

Information based on available tox data on similar formulations:

Bifenthrin EC

Acute oral LD50 = 262 mg/kg

Acute dermal LD50 = >2,000 mg/kg

Acute inhalation LC50 = 1.86 mg/L/4 hr (rat)

Sensitization = This product produces skin sensitization (allergic reaction) in laboratory animals and may produce similar effects in humans.

This product has moderate oral and low inhalation and dermal toxicity. It is slightly irritating to the eyes and skin. Signs of toxicity in laboratory animals included tremors, convulsions, ataxia, decreased locomotion and nasal discharge. Contact with Bifenthrin products may occasionally produce skin sensations, such as rashes, numbing, burning or tingling, which are reversible and usually subside in 12 hours. Inhalation of aromatic hydrocarbon vapors may cause dizziness, disturbances in vision, drowsiness, respiratory irritation, and eye, skin, and mucous membrane irritation. Vomiting after ingestion of this product may cause aspiration of aromatic hydrocarbons into the lungs which may result in fatal pulmonary edema.

### Chronic Toxicity

#### **Carcinogenicity**

BIFEN

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. Chronic exposure to aromatic hydrocarbons may cause headaches, dizziness, loss of sensations or feelings and liver and kidney damage. There is no sufficient evidence to suggest that aromatic hydrocarbons are reproductive toxicants, mutagens or developmental toxicants. .

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Bifenthrin is highly toxic to fish and aquatic arthropods and LC50 values range from 0.0038 to 17.8 ug/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).. Bifenthrin has moderate stability in the soil under aerobic conditions with a half-life ranging from 65 to 125 days depending on soil type. It is stable at a wide range of pH values. Bifenthrin has a high Log Pow (>6.0), a high affinity for organic matter, and is not mobile in soil which indicate little potential for movement into ground water. There is potential for bifenthrin to bioconcentrate (BCF = 11,750).

## 13. DISPOSAL CONSIDERATIONS

#### **Waste Disposal Method**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or 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. .

**Contaminated Packaging**

Empty containers should be taken for local recycling, recovery or waste disposal

**14. TRANSPORT INFORMATION****DOT**

**Proper Shipping Name** Pyrethroid pesticide, liquid, toxic, flammable (Bifenthrin) (aromatic hydrocarbon)  
**Hazard Class** 6.1  
**Subsidiary Class** 3  
**UN-No** UN3351  
**Packing Group** PG III

**ICAO**

**UN-No** UN3351  
**Proper Shipping Name** Pyrethroid pesticide, liquid, toxic, flammable (Bifenthrin) (aromatic hydrocarbon)  
**Hazard Class** 6.1  
**Subsidiary Class** 3  
**Packing Group** PG III

**IATA**

**UN-No** UN3351  
**Proper Shipping Name** Pyrethroid pesticide, liquid, toxic, flammable (Bifenthrin) (aromatic hydrocarbon)  
**Hazard Class** 6.1  
**Subsidiary Class** 3  
**Packing Group** PG III  
**ERG Code** 6L

**IMDG/IMO**

**Proper Shipping Name** Pyrethroid pesticide, liquid, toxic, flammable (Bifenthrin) (aromatic hydrocarbon)  
**Hazard Class** 6.1  
**Subsidiary Class** 3  
**UN-No** UN3351  
**Packing Group** PG III  
**EmS No.** F-E,S-D

**Special Provisions**

994, 274, 223, 61

**15. REGULATORY INFORMATION****International Inventories**

## Aromatic 100

**DSL** Listed  
**EINECS/ELINCS** Listed  
**CHINA** Listed  
**KECL** Listed

## mixture of methylesters of C16-C18 fatty acids and C18 unsaturated fatty acids

**DSL** Listed  
**EINECS/ELINCS** Listed  
**ENCS** Listed  
**CHINA** Listed  
**KECL** Listed

## Bifenthrin technical

**ENCS** Listed  
**CHINA** Listed  
**KECL** Listed

**USA****Federal Regulations****SARA 313**

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Chemical Name	CAS-No	Weight %

Bifenthrin technical	82657-04-3	23.4
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**SARA 311/312 Hazardous Categorization**

Chronic Health Hazard	No
Acute Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act****Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any HAPs.

**CERCLA****RCRA****Pesticide Information****State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**State Right-to-Know****International Regulations**

Mexico - Grade Not available

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

Not determined

<b>16. OTHER INFORMATION</b>
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Revision Date 24-Nov-2008

**Revision Summary**

Update section 3 Update section 4

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End of MSDS