



Material Safety Data Sheet

United Phosphorus, Inc.

NFPA	PPE	

Issued Date 08-May-2009

Revision Date 03-Mar-2010

Revision Number: 4

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
 R&D Technical Service

Phone Number
 610-878-6100

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

Product Name Bifenture 10 DF Insecticide/Miticide
EPA Reg # 70506-227
Recommended Use Restricted Use Pesticide
Product Code 12U-133R

2. HAZARDS IDENTIFICATION

Emergency Overview

May form combustible dust-air mixtures.
May support combustion.

CAUTION

Appearance off-white, White.

Physical State Powder.

Odor Odorless.

Potential Health Effects

- Skin contact

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
Bifenithrin technical	82657-04-3	10	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.
Rinse skin immediately with plenty of water for 15-20 minutes.
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
Do not induce vomiting unless told to do so by a poison control center or doctor
Never give anything by mouth to an unconscious person

Notes to Physician

No information available

5. FIRE-FIGHTING MEASURES

Flammable Explosive Properties

Flash Point	Not applicable
Autoignition Temperature	Not available
Flammability Limits in Air	Not available
Extnguishing Media	Foam Carbon dioxide (CO2) Dry chemical
Fire/Explosion Hazard	Keep product and empty container away from heat and sources of ignition May support combustion at elevated temperatures.
Hazardous Combustion Products	Carbon monoxide, Carbon dioxide (CO2), Hydrogen chloride, hydrogen fluoride.
NFPA	Health 2 Flammability 0 Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with the skin and the eyes. Avoid dust formation. Remove all sources of ignition. Use personal protective equipment.
Environmental Precautions	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..
Methods for Clean-up	Sweep up and shovel into suitable containers for disposal. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid dust formation. Do not eat, drink or smoke when using this product. Keep in a well-ventilated place. Remove all sources of ignition. Wash thoroughly after handling. .
Storage	Keep away from heat and sources of ignition. Store in original container. .

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Engineering Controls

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. .

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. Avoid contact with skin, eyes and clothing. Wash hands and face before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	off-white White	Odor	Odorless
Physical State	Powder	pH	(@20C)7.67
Boiling Point/Range	Not available	Melting Point/Range	Not available
Specific Gravity	0.4226 g/ml	Solubility	Not available
Evaporation Rate	Not available	Vapor Pressure	Not available
Vapor Density	Not available	VOC Content	Not available
Viscosity	Not available	Molecular Weight	No data available
Bulk Density	No data available	Percent Solids	Not available
Percent Volatiles	Not available		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions
Conditions to Avoid	Extreme temperatures. Heat, flames and sparks.
Incompatible Materials	No materials to be especially mentioned.
Hazardous Decomposition Products	Carbon dioxide (CO ₂). Carbon monoxide. Hydrogen chloride. Hydrogen fluoride.
Possibility of Hazardous Polymerization	None under normal processing

11. TOXICOLOGICAL INFORMATION

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Acute Toxicity

Product Information

Bifenthrin 10 DF:
Acute oral LD50 (rat) = 550 mg/kg
Acute dermal LD50 (rat/rabbit) = >2,000 mg/kg
Acute inhalation LC50 (rat) = >5.869 mg/L
Dermal sensitization = Not a sensitizer

Component Information

Bifenthrin products may produce skin sensations such as rashes, numbing, burning, or tingling, which are reversible and usually subside in 12 hours.

Chronic Toxicity

Carcinogenicity

Bifenthrin technical- In studies with laboratory animals, bifenthrin did not cause reproductive toxicity or teratogenicity. Tremors were associated with repeated exposure of laboratory animals with Bifenthrin. 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. .

12. ECOLOGICAL INFORMATION

Ecotoxicity

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). 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)..

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 may contain hazardous residues. Containers should be handled as instructed by following all container disposal directions .

14. TRANSPORT INFORMATION

DOT

Not regulated

ICAO

Not regulated

14. TRANSPORT INFORMATION

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

Bifenthrin technical

ENCS Listed
CHINA Listed
KECL Listed

USA

Federal Regulations

SARA 313

Y

Chemical Name	CAS-No	Weight %
Bifenthrin technical	82657-04-3	10

SARA 311/312 Hazardous Categorization

Chronic Health Hazard Yes
Acute Health Hazard Yes
Fire Hazard No
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

16. OTHER INFORMATION

Revision Date

03-Mar-2010

Revision Summary

Update product name

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End of MSDS