United Phosphorus, Inc.

Safety Data Sheet

Preparation Date 21-Apr-2015 **Revision date** 23-Aug-2017 **Revision Number:** 3

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier
Product Description: Bifenture EC Insecticide/ Bifenture EC-CA Insecticide

Other means of identification
Item#: 12U-135
UN-No UN3351
Registration number(s) 70506-57

Recommended use of the chemical and restrictions on use
Recommended use Insecticide.
Uses advised against Activities contrary to label recomendation

Details of the Supplier of the Safety Data Sheet
Supplier Address
United Phosphorus Inc.
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406

Emergency telephone number
Company Phone Number 1-800-438-6071
Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Gases)	Category 4
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Aspiration toxicity	Category 1
FLAMMABLE LIQUIDS	Category 3

Label elements

EMERGENCY OVERVIEW

DANGER

Hazard Statements
Toxic in contact with skin
Harmful if inhaled
May cause genetic defects
May cause cancer
May be fatal if swallowed and enters airways
Flammable liquid and vapor

Appearance clear Yellow **Physical state** Liquid **Odor** aromatic Hydrocarbon

Precautionary Statements - Prevention
Do not handle until all safety precautions have been read and understood
Do not handle until all safety precautions have been read and understood
Wear cold insulating gloves/face shield/eye protection
Do not get in eyes, on skin, or on clothing
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response
IF exposed
IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor if you feel unwell
Remove/Take off immediately all contaminated clothing
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)
OTHER INFORMATION
• Very toxic to aquatic life with long lasting effects
• Very toxic to aquatic life

3. Composition/information on Ingredients

Chemical name	CAS-No	Weight %	Trade secret
Aromatic 100	64742-95-6	>35	
Bifenithrin technical	82657-04-3	25.1	

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

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. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin contact Take off contaminated clothing. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Call a poison control center or doctor for treatment advice. Seek immediate medical attention/advice. Wash off immediately with

plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use.

Inhalation 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.

Ingestion Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects No information available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

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. Digestible fats, oils, or alcohol may increase absorption and should be avoided.

5. Fire-fighting measures

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical
No information available.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO2). Hydrogen chloride. Hydrogen fluoride.

Explosion data
Protective equipment and precautions for firefighters
Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with skin and eyes. Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions

Environmental precautions 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 pertinenet environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up 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. Ground and bond containers when transferring material. Remove all ignition sources.

7. Handling and Storage

Precautions for safe handling

Handling 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.

Conditions for safe storage, including any incompatibilities

Storage 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. Keep containers tightly closed in a cool, well-ventilated place.

incompatible materials No information available.

8. Exposure Controls/Personal Protection

Exposure guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

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 Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields.

Skin protection Wear protective gloves/clothing. Coveralls. Chemical resistant gloves. Socks and footwear.

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

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	clear Yellow	**Odor**	aromatic Hydrocarbon
color	No information available		

Property	**VALUES**	**Remarks/ • Method**
pH	No information available	
Melting point/freezing point	No information available	
Boiling Point/Range	No information available	
Flash Point	54 C / 129 F	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability limit in air		
Upper Flammability Limit	No information available	
Lower Flammability Limit	No information available	
vapor pressure	No information available	

Vapor Density	No information available
Specific gravity	No information available
Water solubility	No information available
Solubility in Other Solvents	No information available
Partition coefficient: n-octanol/water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

OTHER INFORMATION

Softening point	No information available
molecular weight	No information available
VOC Content	No information available
density	No information available
Bulk density	No information available

10. Stability and Reactivity

Reactivity
no data available

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

incompatible materials
No information available.

Hazardous decomposition products
No information available.

11. Toxicological Information

Information on Likely Routes of Exposure

Product information

Bifenture EC:
Acute oral LD50 = 262 mg/kg
Acute dermal LD50 = >2000 mg/kg
Acute inhalation LC50 1.86 mg/L
Skin sensitization = Causes skin sensitization in susceptible individuals

Inhalation	Inhalation of aromatic hydrocarbon may result in dizziness, vision disturbances.
Eye contact	May cause slight irritation.
Skin contact	May cause sensitization of susceptible persons. Skin exposure may result in rashes, numbing, burning or tingling sensation which is reversible and usually subsides within 12 hours.
Ingestion	Vomiting after ingestion may cause aspiration of the aromatic hydrocarbon into the lungs

which may result in fatal pulmonary edema.

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Mutagenic effects No information available.
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.
Reproductive effects Not Available.
STOT - Single Exposure No information available.
STOT - Repeated Exposure No information available.
Aspiration hazard No information available.

Numerical Measures of Toxicity - Product information

LD50 Oral 262 mg/kg (rat)
LD50 Dermal > 2000 mg/kg (rat)
LC50 Inhalation 1.86 mg/l (4-hr)

12. Ecological Information

Yes - when shipped in bulk.

ecotoxicity

Bifenthrin : Highly toxic to fish and aquatic arthropods (LC50 values between 0.0038 to 17.8 ug/L. Slightly toxic to water fowl and upland game birds (LD50 between 1800 to >2150 mg/kg)

Persistence/Degradability
No information available.

Bioaccumulation/ Accumulation
No information available.

Other Adverse Effects
No information available

13. Disposal Considerations

Waste Treatment Methods

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 Refer to product label.

14. Transport Information

DOT

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
Marine Pollutant	Yes - when shipped in bulk.

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
Description	Marine Pollutant

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
Description	Marine Pollutant

IMDG/IMO

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
EmS No.	F-E,S-D
Marine Pollutant	Yes

15. Regulatory Information

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:

signal word WARNING

Ventilation Control PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170. Keep Out of Reach of Children

May be fatal if swallowed. This product is highly toxic to bees. Toxic to fish and aquatic organisms. Causes substantial

but temporary eye injury.

International Inventories

USINV	Not present
DSL/NDSL	Not present
EINECS/ ELINCS	Not Present
ENCS	Not Present
China	Not Present
KECL	Not Present
PICCS	Not Present
AICS	Not Present
TSCA	Not Present

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

SARA 311/312 Hazardous Categorization

Acute health hazard	yes
Chronic health hazard	NO
Fire hazard	yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CERCLA
Not applicable

CERCLA
SARA Product RQ 0

RCRA

Pesticide Information

State Regulations
Not applicable

State Right-to-Know
Not applicable

International regulations

U.S. EPA Label information
EPA Pesticide registration number 70506-57

16. Other Information

NFPA **HEALTH** 2 **flammability** 1 **Instability** 0 **Physical hazard** -

Preparation Date 21-Apr-2015
Revision date 23-Aug-2017
Revision Summary
Update Section 9

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End of MSDS