



# Material Safety Data Sheet

## United Phosphorus, Inc.

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

Issued Date 09-May-2012

Revision Date 25-Sep-2012

Revision Number: 1

### 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)

<u>Company Information</u>	<u>Contact Information</u>	<u>Phone Number</u>	<u>Available Hrs</u>
UPI	Customer Service	1-800-438-6071	8:00 am to 5:00 pm EST

<b>Product Name</b>	Phoenix Cardinal
<b>EPA Reg #</b>	70506-288
<b>Recommended Use</b>	Plant Growth Regulator
<b>Product Code</b>	12P-0017

### 2. HAZARDS IDENTIFICATION

<b>Emergency Overview</b>		
Causes irreversible eye damage		
Causes skin burns		
May be harmful if swallowed, inhaled, or absorbed through the skin.		
<b>DANGER!</b>		
<b>Appearance</b> Clear.	<b>Physical State</b> Liquid.	<b>Odor</b> Slight.

#### Potential Health Effects

<b>Eyes</b>	Corrosive. Will cause eye burns and permanent tissue damage. Symptoms include tearing, redness, burning and swelling.
<b>Skin</b>	Contact with skin may cause irritation and reddening of exposed tissue. Harmful if absorbed through skin. Contact causes severe skin irritation and possible burns.
<b>Inhalation</b>	Spray mist concentrations may be harmful. High concentrations may be fatal. Symptoms of overexposure may include choking, coughing, and burning of the throat. .



<b>Environmental Precautions</b>	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>	Wear personal protective equipment. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Wash thoroughly after handling.
<b>Storage</b>	Store in original container. Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. Avoid temperature extremes during storage. Maintain storage temperature above 32 F.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Exposure Guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<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.
<b>Personal Protective Equipment</b>	
<b>Eye/face Protection</b>	Where there is potential for eye contact have eye flushing equipment available. Eye/face Protection.
<b>Skin Protection</b>	Long sleeved clothing. Chemical resistant footwear plus socks. Long pants. Chemical resistant gloves.
<b>Respiratory Protection</b>	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. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear	<b>Odor</b>	Slight
<b>Physical State</b>	Liquid	<b>pH</b>	1.7
<b>Boiling Point/Range</b>	Not available	<b>Melting Point/Range</b>	Not available
<b>Specific Gravity</b>	1.1 g/mL	<b>Solubility</b>	Soluble

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	<5%		

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions
<b>Conditions to Avoid</b>	Avoid temperatures above 335 F and pH >3.
<b>Incompatible Materials</b>	Incompatible with oxidizing agents Alkaline Corrosive effects on iron, mild steel, aluminum and copper.
<b>Hazardous Decomposition Products</b>	Thermal decomposition can lead to release of irritating gases and vapours Hydrogen chloride. Reaction with alkaline materials causes evolution of ethylene gas.
<b>Possibility of Hazardous Polymerization</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Product Information

**Cardinal:**  
Oral LD50 (rat) =>3,200 mg/kg  
Dermal LD50 (rat) = >1,700 mg/kg  
Inhalation LC50 (rat) = >4.9 mg/L  
Eye irritation (rabbit) = Corrosive, causes irreversible eye damage

Skin irritation (rabbit) = Severe irritant  
Sensitization (guinea pig) = Slight sensitizer

Medical conditions aggravated by exposure= Acute asthma and/or other chronic pulmonary diseases due to inhalation of spray mists. Existing skin sensitivities.

### Chronic Toxicity

#### Carcinogenicity

There are no known carcinogenic chemicals in this product.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Cardinal:

Fish toxicity = 96 hr LC50 (rainbow trout) = 350 mg/L

96 hr LC50 (Bluegill) = 300 mg/L

Avian toxicity = Oral LD50 (Bobwhite quail) = 1000 mg/kg

Bee toxicity = Not toxic

### 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** Refer to product label.

### 14. TRANSPORT INFORMATION

**DOT**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (Ethepon)  
**Hazard Class** 8  
**UN-No** UN3265  
**Packing Group** PG III

**ICAO**

**UN-No** UN3265  
**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (Ethepon)  
**Hazard Class** 8  
**Packing Group** PG III

**IATA**

**UN-No** UN3265  
**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (Ethepon)  
**Hazard Class** 8  
**Packing Group** PG III

**IMDG/IMO**

**Proper Shipping Name** Corrosive liquid, acidic, organic, n.o.s. (Ethepon)  
**Hazard Class** 8  
**UN-No** UN3265  
**Packing Group** PG III

### 15. REGULATORY INFORMATION

**International Inventories**

Chemical Name	TSCA	DSL	NDSL	EINECS/ ELINCS	ENCS	CHINA	KECL	AICS
2-Chloroethylphosphonic acid				X	(2)-2930	X	KE-05680	X

**USA**

**Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazardous Categorization**

Chronic Health Hazard	No
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**

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
2-Chloroethylphosphonic acid 16672-87-0 ( 21.7 )			X	

**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** 25-Sep-2012

**Revision Summary**

Add to system

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**End of MSDS**