



# Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 04-May-2015

Revision date 04-May-2015

Revision Number: 1

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

### Product identifier

**Product Description:** Phoenix Cardinal

### Other means of identification

**Item#:** 12P-0017  
**UN-No** UN3265  
**Synonyms** Not Available  
**Registration number(s)** 70506-288

### Recommended use of the chemical and restrictions on use

**Recommended use** Plant Growth Regulator.  
**Uses advised against** Activities contrary to label recommendation

### Details of the Supplier of the Safety Data Sheet

#### Supplier Address

UPI  
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 4
Acute toxicity - Inhalation (Gases)	Category 1
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin Corrosion/Irritation	Category 1
Serious eye damage/eye irritation	Category 1

### Label elements

#### EMERGENCY OVERVIEW

**DANGER**

#### **hazard statements**

Harmful in contact with skin  
Fatal if inhaled  
Causes severe skin burns and eye damage



appearance clear

Physical state liquid

Odor Slight

**Precautionary Statements - Prevention**

Wear protective gloves/protective clothing/eye protection/face protection

Do not breathe dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

In case of inadequate ventilation wear respiratory protection

Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician

Call a POISON CENTER or doctor if you feel unwell

Wash contaminated clothing before reuse

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a POISON CENTER or doctor/physician

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards Not Otherwise Classified (HNOC)****OTHER INFORMATION**

- May be harmful in contact with skin

### 3. Composition/information on Ingredients

Chemical name	CAS-No	Weight %	Trade secret
2-Chloroethylphosphonic acid	16672-87-0	21.7	

\*The exact percentage (concentration) 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. Seek immediate medical attention/advice.

**Skin contact**

Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing 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, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.

**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**

Medical conditions aggravated by exposure: Acute asthma or other chronic pulmonary diseases. Skin sensitivities.

**Indication of Any Immediate Medical Attention and Special Treatment Needed****Notes to physician**

Probable mucosal damage may contraindicate the use of gastric lavage.

## 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** Can emit toxic fumes under fire conditions. Hydrogen chloride.

**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**

Attention! Corrosive material. Use personal protective equipment. Provide adequate ventilation. Avoid contact with the skin and the eyes.

**Environmental Precautions****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 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.

## 7. Handling and Storage

**Precautions for safe handling****Handling**

Wear personal protective equipment. Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Keep out of reach of children.

**Conditions for safe storage, including any incompatibilities****Storage**

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

**incompatible materials** Incompatible with oxidizing agents. Alkaline. Corrosive effects on iron, mild steel, aluminum and copper. .

## 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. Goggles. Eye flushing equipment must be available.

**Skin protection**

Long sleeved clothing. Chemical resistant footwear plus socks. Long pants. Chemical resistant gloves.

**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. 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

### Information on basic physical and chemical properties

<b>Physical state</b>	liquid	<b>Odor</b>	Slight
<b>appearance</b>	clear		
<b>color</b>	No information available		
<b>Property</b>	<b>VALUES</b>	<b>Remarks/ • Method</b>	
<b>pH</b>	1.7		
<b>Melting point/freezing point</b>	2.7 °C / 37 °F		
<b>Boiling Point/Range</b>	No information available		
<b>Flash Point</b>	No information available		
<b>Evaporation Rate</b>	No information available		
<b>flammability (solid, gas)</b>	No information available		
<b>Flammability limit in air</b>			
<b>Upper Flammability Limit</b>	No information available		
<b>Lower Flammability Limit</b>	No information available		
<b>vapor pressure</b>	No information available		
<b>Vapor Density</b>	No information available		
<b>Specific gravity</b>	1.1 g/mL		
<b>Water solubility</b>	No information available		
<b>Solubility in Other Solvents</b>	No information available		
<b>Partition coefficient: n-octanol/water</b>	No information available		
<b>Autoignition temperature</b>	No information available		
<b>decomposition temperature</b>	No information available		
<b>Viscosity, kinematic</b>	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**

Avoid temperatures above 335 F and pH &gt;3.

**incompatible materials**

Incompatible with oxidizing agents. Alkaline. Corrosive effects on iron, mild steel, aluminum and copper. .

**Hazardous decomposition products**

Thermal decomposition can lead to release of irritating gases and vapours. Hydrogen chloride. Reaction with alkaline materials causes evolution of ethylene gas. .

## 11. Toxicological Information

**Information on Likely Routes of Exposure****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.

**Inhalation**

HARMFUL IF INHALED.

**Eye contact**

Corrosive. Causes irreversible eye damage.

**Skin contact**

May be absorbed through the skin in harmful amounts. Contact causes severe skin irritation and possible burns.

**Ingestion**

HARMFUL IF SWALLOWED.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Chloroethylphosphonic acid 16672-87-0	-	-	= 90 mg/m <sup>3</sup> ( Rat ) 4 h

**Information on Toxicological Effects****Symptoms**

No information available.

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

<b>sensitization</b>	No information available.
<b>Mutagenic effects</b>	No information available.
<b>Carcinogenicity</b>	There are no known carcinogenic chemicals in this product.
<b>Reproductive effects</b>	Not Available.
<b>STOT - Single Exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

**Numerical Measures of Toxicity - Product information**

<b>LD50 Oral</b>	> 3200 mg/kg (rat)
<b>LD50 Dermal</b>	> 1700 mg/kg (rat)
<b>LC50 Inhalation:</b>	Inhalation LC50 > 4.9 mg/l (rat) (4-hr)

**12. Ecological Information****ecotoxicity**

Cardinal:

Fish:

Rainbow trout LC50 = 350 mg/L

Bluegill sunfish LC50 = 300 mg/L

Avaian

Bobwhite quail 1000 mg/L

Non toxic to bees

**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**

<b>UN-No</b>	UN3265
<b>Proper shipping name</b>	Corrosive liquid, acidic, organic, n.o.s. (Ethephon)
<b>Hazard class</b>	8
<b>Packing group</b>	PG III

**ICAO**

<b>UN-No</b>	UN3265
<b>Proper shipping name</b>	Corrosive liquid, acidic, organic, n.o.s. (Ethephon)
<b>Hazard class</b>	8
<b>Packing group</b>	PG III

**IATA**

<b>UN-No</b>	UN3265
<b>Proper shipping name</b>	Corrosive liquid, acidic, organic, n.o.s. (Ethephon)
<b>Hazard class</b>	8
<b>Packing group</b>	PG III

**IMDG/IMO**

<b>UN-No</b>	UN3265
<b>Proper shipping name</b>	Corrosive liquid, acidic, organic, n.o.s. (Ethephon)
<b>Hazard class</b>	8
<b>Packing group</b>	PG III

## 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** DANGER!

**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.

**Causes irreversible eye damage. Wear goggles when handling. Harmful if swallowed or absorbed through the skin.**

**International Inventories**

<b>USINV</b>	Not determined
<b>DSL/NDSL</b>	Not determined
<b>EINECS/ ELINCS</b>	Does not comply
<b>ENCS</b>	Does not comply
<b>China</b>	Does not comply
<b>KECL</b>	Does not comply
<b>PICCS</b>	Does not comply
<b>AICS</b>	Does not comply
<b>TSCA</b>	Does not comply

**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 does not contain any

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	No
Sudden release of pressure hazard	No
Reactive Hazard	yes

**CERCLA**

SARA Product RQ 0

**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**

**State Right-to-Know**

**International regulations**

**U.S. EPA Label information**

EPA Pesticide registration number 70506-288

**16. Other Information**

**NFPA** HEALTH 3 flammability 0 Instability 1 Physical hazard -

Preparation Date 04-May-2015  
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 Revision Summary Update to GHS format

End of MSDS