



# Safety Data Sheet

Preparation Date 10-May-2015

Revision date 14-Jul-2025

Revision Number: 15

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

### Identification of the product

#### Product Description

WEEVIL-CIDE® Tablets, WEEVIL-CIDE® Pellets

### Other means of identification

#### Internal SDS code

12U-142

#### UN/ID no

UN1397

#### Registration number(s)

70506-13; 70506-14

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

#### Recommended use

Restricted Use Pesticide. The use of this product is STRICTLY PROHIBITED within 100 feet of any building where humans and/or domestic animals do or may reside on single family and multi-family residential properties, nursing homes, schools (except athletic fields), daycare facilities and hospitals.

#### Uses advised against

Activities contrary to label and manual recommendations and direction of use.

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

#### Supplier Address

UPL NA Inc.

PO Box 12219

Research Triangle Park, NC 27709-12219

### 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 and Drug Safety (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 - Oral	Category 2
Acute toxicity - Inhalation (Gases)	Category 1
Acute toxicity - Inhalation (Vapors)	Category 1
Substances or mixtures which, in contact with water, emit flammable gases	Category 1

### Label elements

### EMERGENCY OVERVIEW

#### DANGER

#### Hazard Statements

Fatal if inhaled

FATAL IF SWALLOWED

Toxic in contact with skin

In contact with water releases flammable gases which may ignite spontaneously



**Appearance** Tablet/pellet

**Physical state** solid

**Odor** Sulfurous Pure phosphine gas is odorless but a garlic odor might be detected due to a contaminant. Since odor may not be detected under certain circumstances, the absence of a garlic odor does not mean that phosphine gas is absent.

#### Precautionary Statements - Prevention

Do not eat, drink or smoke when using this product  
Obtain special instructions before use  
Protect from moisture  
Wash hands thoroughly after handling  
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  
Wear respiratory protection  
P223 - Keep away from any possible contact with water, because of violent reaction and possible flash fire

#### IF INHALED

Immediately call a POISON CENTER or doctor/physician  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
Rinse mouth

#### Precautionary Statements - Storage

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

#### Precautionary Statements - Disposal

Refer to manufacturer/supplier for information on recovery/recycling

#### Hazards Not Otherwise Classified (HNOC)

#### OTHER INFORMATION

- Very toxic to aquatic life

### 3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Ammonium carbamate	1111-78-0	>20
Aluminum phosphide	20859-73-8	60

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

##### General advice

DANGER: TOXIC  
REACTS WITH MOISTURE AND WATER TO PRODUCE PHOSINE GAS (HYDROGEN PHOSPHIDE- PH<sub>3</sub>)

When gas forms, may smell like garlic. Odor might not be detected under certain circumstances, the absence of a garlic odor does not mean that hydrogen phosphide is absent. When container is opened, the contents may react with moisture in the air and cause release of hydrogen phosphide which may spontaneously burn in air. Ingestion of tablets, pellets or dust will be harmful or fatal.

<b>Eye contact</b>	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. Immediate medical attention is required.
<b>Skin contact</b>	Brush or shake off material. Wash contaminated skin with soapy water in a well ventilated area. Do not leave contaminated clothing in occupied or confined areas such as car or van. Brush or shake off clothes. Allow clothes to aerate prior to laundering. Remove and wash contaminated clothing before re-use.
<b>Inhalation</b>	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. Keep warm and make sure person can breathe freely.
<b>Ingestion</b>	Call a physician or poison control center immediately. Do not induce vomiting without medical advice. Vomiting may off-gas and release phosphine, which could pose a risk of secondary contamination. Never give anything by mouth to an unconscious person.
<b>Protection of First-aiders</b>	Use personal protective equipment.

**Most Important Symptoms and Effects, Both Acute and Delayed**

<b>Most Important Symptoms and Effects</b>	Headache. Dizziness. Nausea. Difficulty in breathing. Diarrhea. Fatal if swallowed. Fatal if inhaled. Toxic in contact with skin.
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**Indication of Any Immediate Medical Attention and Special Treatment Needed**

<b>Notes to physician</b>	<p>Aluminum phosphide- This product reacts with moisture from air, water, acids and many other liquids to release hydrogen phosphide (phosphine) gas. Symptoms of severe poisoning may occur within a few hours to several days. Phosphine poisoning may result in; pulmonary edema, liver elevated serum GOT, LDH and alkaline phosphatase, reduced prothrombin, hemorrhage and jaundice, and kidney hematuria and anuria. Pathology is characterized by hypoxia.</p> <p>Mild inhalation exposure causes malaise, ringing of ears, fatigue, nausea, and pressure in the chest, which is relieved by removal to fresh air. Moderate poisoning causes weakness, vomiting, and pain just above the stomach, chest pain, diarrhea and dyspnea. Symptoms of severe poisoning may occur within a few hours to several days, resulting in pulmonary edema and may lead to dizziness, cyanosis, unconsciousness and death.</p> <p>In sufficient quantity, phosphine affects the liver, kidneys, lungs, nervous system, and circulatory system. Inhalation can cause lung edema, and hyperemia (excess of blood in body), small perivascular brain hemorrhage and brain edema (fluid in brain). Ingestion can cause lung and brain symptoms but damage to the viscera is more common. Phosphine poisoning may result in (1) pulmonary edema, (2) liver elevated serum GOT, LDH and alkaline phosphatase, reduced prothrombin, hemorrhage and jaundice and (3) kidney hematuria and anuria. Pathology is characterized by hypoxia. Frequent exposure to subacute concentrations over a period of days or weeks may cause poisoning. Treatment is symptomatic.</p>
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**5. Fire-fighting measures**

**Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>). Foam. Dry sand.

Aluminum phosphide is not flammable; however, it reacts with water to produce hydrogen phosphide (phosphine) gas which may ignite spontaneously at concentrations above the LEL of 1.8% v/v.

**Unsuitable extinguishing media** Do not use water.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating gases and vapours.

Metal phosphides: Hydrogen phosphide (phosphine)/air mixtures at concentrations above the lower flammable limit may ignite spontaneously. Ignition of high concentrations of hydrogen phosphide can produce a very energetic reaction. Explosions can occur under these conditions and may cause personal injury. NEVER allow build up of hydrogen phosphide to exceed explosive concentrations. Containers of metal phosphides should be opened in open air and never in a flammable atmosphere. Do not confine spent or partially spent dust as slow release of hydrogen phosphide may result in formation of an explosive atmosphere. Spontaneous ignition may occur if large quantities of aluminum phosphide are piled in contact with liquid water. Fires containing metal phosphides or hydrogen phosphide will produce phosphoric acid by the following reaction:  $2\text{PH}_3 + 4\text{O}_2 = \text{H}_2\text{O} + \text{P}_2\text{O}_5 = 2\text{H}_3\text{PO}_4$ .

**Hazardous combustion products** Phosphine gas.

**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. An accidental spill/release of material may produce high levels of gas. A NIOSH/MSHA approved full face gas mask with phosphine cartridge of SCBA must be employed during wet deactivation of partially spent material. Wear protective gloves and clothing. Wear protective gloves/protective clothing and eye/face protection.

**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**

Damaged aluminum foil pouches should be transferred to a sound dry metal container and immediately seal and properly label as aluminum phosphide. Do not use water at any time during clean-up. Damaged aluminum flasks should be transferred to a sound dry metal container and immediately seal and properly label as aluminum phosphide.

## 7. Handling and Storage

**Precautions for safe handling**

**Handling**

Use of this product is STRICTLY PROHIBITED within 100 feet of any building where humans and/or domestic animals do or may reside on single and multifamily residential properties and nursing homes, schools (except athletic fields) daycare facilities and hospitals. Keep out of reach of children. Do not eat, drink or smoke when using this product. Remove all sources of ignition. Wear personal protective equipment. It is recommended that the gas-tight, aluminum flask be opened in open air or near a fan, which exhausts outside immediately. Never open in a flammable atmosphere as the product may, although rare, flash. When opening, point container away from the face and body. These precautions will reduce the applicators potential for exposure to hydrogen phosphide (phosphine) gas. Do not expose product to atmospheric moisture any longer than is necessary.

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

<b>Storage</b>	Keep out of the reach of children. Protect from moisture. Store in original container. Keep locked-up. Keep container tightly closed in a dry and well-ventilated place.
<b>incompatible materials</b>	Aquatic. Hydrogen phosphide may react with certain metals (gold, silver, brass, other precious metals and their alloys) and cause corrosion especially at high temperatures and relative humidities. Small electric detectors, brass sprinkler heads, batteries and battery chargers, forklifts, temperature monitoring systems, electrical switch gear, communication devices, computers, calculators, watches and other electronic equipments should be protected or removed before fumigation. Acids. Bases. Strong oxidizing agents.

## 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>	Ensure adequate ventilation, especially in confined areas. Measurements of the concentration Aluminium phosphide in the air must be provided and used to verify the concentration in the atmosphere.
<b>Personal protective equipment</b>	
<b>Eye/Face Protection</b>	Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields.
<b>Skin protection</b>	Wear protective gloves/clothing. Socks and footwear.
<b>Respiratory protection</b>	A NIOSH/MESA approved full face mask with approved canister for phosphine may be employed for concentrations up to 15 ppm. At concentrations above that level, or when concentrations are unknown, NIOSH/MESA approved SCBA or equivalent must be worn.

### 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

### 9.1 Information on basic physical and chemical properties

Appearance	Tablet/pellet	
Physical state	solid	
Odor	Sulfurous Pure phosphine gas is odorless but a garlic odor might be detected due to a contaminant. Since odor may not be detected under certain circumstances, the absence of a garlic odor does not mean that phosphine gas is absent.	
color	white to light Gray Green	
Property	VALUES	Remarks/ Method
pH		None known
Melting point/freezing point		None known
Boiling Point/Range		None known
Flash Point	No information available	None known
Evaporation Rate		None known
Flammability (solid, gas)		Burning rate 100mm UNITS
None known		Specific gravity 2.85
None known		Bulk density
None known		Water solubility
None known		Solubility in Other Solvents insoluble
None known		Partition coefficient: n-octanol/water
None known		Autoignition temperature

None known	<b>Decomposition temperature</b>	Decomposes at ambient conditions when moisture is present.
None known None known	<b>Viscosity</b>	

## 9.2 OTHER INFORMATION

### 10. Stability and Reactivity

#### Reactivity

Water reactive

#### Chemical stability

Stable under recommended storage conditions.

Reacts with water to form hydrogen phosphide (phosphine) gas.

#### Possibility of hazardous reactions

None under normal processing.

#### **Hazardous polymerization**

Hazardous polymerisation does not occur.

#### Conditions to avoid

Exposure to moisture. Protect from water.

#### Incompatible materials

Aquatic. Hydrogen phosphide may react with certain metals (gold, silver, brass, other precious metals and their alloys) and cause corrosion especially at high temperatures and relative humidities. Small electric detectors, brass sprinkler heads, batteries and battery chargers, forklifts, temperature monitoring systems, electrical switch gear, communication devices, computers, calculators, watches and other electronic equipments should be protected or removed before fumigation. Acids. Bases. Strong oxidizing agents.

#### Hazardous decomposition products

Phosphine gas.

### 11. Toxicological Information

#### Information on Likely Routes of Exposure

<b>Inhalation</b>	Respiratory, gastrointestinal, and nervous system symptoms were noted in workers exposed to mean phosphine concentrations less than 10 ppm. Fatal if inhaled.
<b>Eye contact</b>	Irritating to eyes.
<b>Skin contact</b>	Reacts, PH <sub>3</sub> generated is slightly soluble. Harmful in contact with skin.
<b>Ingestion</b>	MAY BE FATAL IF SWALLOWED.

#### **Components Information**

Aluminum phosphide - Acute oral LD<sub>50</sub> = 11.5 mg/kg Acute dermal LD<sub>50</sub> = >5,000 mg/kg (1 hr exposure) Sensitization = Not a sensitizer

Hydrogen phosphide (phosphine) gas - Inhalation = LC<sub>50</sub> 190 ppm (1 hour)

#### Information on Toxicological Effects

<b>Symptoms</b>	No information available.
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#### 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 data available.
<b>Carcinogenicity</b>	Aluminum phosphide: Chronic effects = Not expected to produce target organ effects Mutagenicity = No data Carcinogenicity = Not classified as a carcinogen by IARC, OSHA, or NTP Reproductive and Developmental Effects = Not expected to produce reproductive or developmental effects. Hydrogen phosphide (phosphine) gas - Chronic effects = In a 2-year study, rats were exposed to 48-90 g/m <sup>3</sup> of feed and no overt systemic toxicity was noted. Mutagenicity = Increased frequency of cells with structural chromosomal aberrations noted in an invitro cytogenetic assay with Chinese hamster ovary cells. Carcinogenicity = Not classified as a carcinogen by IARC, OSHA or NTP Reproductive and developmental effects = Not expected to product reproductive or developmental effects.
<b>Reproductive effects</b>	Not Available.
<b>STOT - Single Exposure</b>	no data available.
<b>STOT - Repeated Exposure</b>	no data available.
<b>Target organ effects</b>	Respiratory System, EYES, skin.
<b>Aspiration hazard</b>	No information available.

#### Numerical Measures of Toxicity - Product information

mg/l	
<b>LD50 Oral</b>	11.5 mg/kg (rat)
<b>LD50 Dermal</b>	> 5000 mg/kg (rat)
<b>LC50 Inhalation</b>	Inhalation LC50 190 ppm

## 12. Ecological Information

#### ecotoxicity

Highly toxic to wildlife

#### Persistence/Degradability

no data available.

#### Bioaccumulation/ Accumulation

Does not bioaccumulate.

#### Other Adverse Effects

no data available

## 13. Disposal Considerations

#### Waste Treatment Methods

<b>Waste Disposal Method</b>	Follow applicator manual instructions. and. Follow label for proper disposal instructions.
<b>Contaminated packaging</b>	Refer to product label. and. applicator manual.

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Aluminum phosphide		P006		

## 14. Transport Information

**Note:**

Special permit DOT-SP 13307 authorizes movements by private carriage under specific requirements. For authorized movements refer to the Special Permit.

**DOT**

When shipped in bulk or internationally the marine pollutant marking must also be added to the package.

<b>UN/ID no</b>	UN1397
<b>Proper shipping name</b>	Aluminum phosphide mixture
<b>Hazard class</b>	4.3
<b>Subsidiary class</b>	6.1
<b>Packing group</b>	PG I
<b>Reportable Quantity (RQ):</b>	100 lbs

**TDG**

<b>UN/ID no</b>	UN1397
<b>Proper shipping name</b>	Aluminum phosphide mixture
<b>Hazard class</b>	4.3
<b>Subsidiary class</b>	6.1
<b>Packing group</b>	PG I
<b>Marine Pollutant: Y or N [List Ingredient(s) with %]</b>	Marine pollutant.

**IATA**

<b>UN/ID no</b>	UN1397
<b>Proper shipping name</b>	Aluminum phosphide mixture
<b>Hazard class</b>	4.3
<b>Subsidiary class</b>	6.1
<b>Packing group</b>	PG I
<b>Description</b>	Forbidden by passenger aircraft

**IMDG**

<b>UN/ID no</b>	UN1397
<b>Proper shipping name</b>	Aluminum phosphide mixture
<b>Hazard class</b>	4.3
<b>Subsidiary class</b>	6.1
<b>Packing group</b>	PG I
<b>EmS No.</b>	F-G, S-N
<b>Environmental hazards</b>	Marine pollutant

## 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.

**Restricted Use Pesticide. Due to inhalation toxicity of phosphine gas. Keep out of Reach of Children. May be fatal if**



swallowed. May be fatal if inhaled. Toxic to wildlife.

The use of this product is **STRICTLY PROHIBITED** within 100 feet of any building where humans and/or domestic animals do or may reside on single family and multi family residential properties, nursing homes, schools (except athletic fields), daycare facilities and hospitals.

Granules or dust can be fatal if swallowed. When sealed container is opened, allowing material to come in contact with moisture, water or acids, toxic phosphine gas will be released. Phosphine may ignite spontaneously at levels above its lower flammable limit of 1.8% v/v, it is important not to exceed this concentration. Ignition of high concentrations of phosphine can produce a very energetic reaction. **NEVER ALLOW** build up of phosphine to exceed concentrations. Do not confine spent or partially spent granules, as the slow release of phosphine may result in formation of an explosive atmosphere. Opening pouches in open air may produce a flash due to phosphine build up.

### International Inventories

USINV	Present
DSL/NDSL	Present
EINECS/ ELINCS	Present
ENCS	Not Present
China	Present
KECL	Not Present
PICCS	Present
AICS	Not Present
TSCA	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 Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium carbamate 1111-78-0	5000 lb			X

#### CERCLA

Not applicable

Chemical name	RQ	CERCLA EHS RQs	RQ
Ammonium carbamate 1111-78-0	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Aluminum phosphide 20859-73-8	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

#### CERCLA

Component	RQ
Ammonium carbamate 1111-78-0 ( >20 )	5000 lb
Aluminum phosphide 20859-73-8 ( 60 )	100 lb
Component	CERCLA EHS RQs
Aluminum phosphide 20859-73-8 ( 60 )	100 lb

#### RCRA

Component	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
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Aluminum phosphide 20859-73-8 ( 60 )		P006	
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**Pesticide Information**

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Ammonium carbamate 1111-78-0 ( >20 )			X	
Aluminum phosphide 20859-73-8 ( 60 )	Under further evaluation as sole active ingredient for agricultural crop uses No mixtures registered.		X	Present

**State Regulations**

California Proposition 65

This product does not contain any Proposition 65 chemicals

**State Right-to-Know**

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ammonium carbamate - 1111-78-0	X	X	X		
Aluminum phosphide - 20859-73-8	X	X	X		

**International regulations**

**U.S. EPA Label information**

EPA Pesticide registration number 70506-13 & 70506-14

**16. Other Information**

**NFPA** HEALTH 4 flammability 4 Instability 2 Physical hazard W/

Preparation Date 10-May-2015

Revision date 14-Jul-2025

**Revision Summary**

Update section 14 Proper shipping name

**Disclaimer**

UPL NA Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with other materials or in any process. Further, since the conditions and methods of use are beyond the control of UPL NA Inc. and UPL NA Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

**End of SDS**