REDACTED VERSION

Incident Action Plan

(b) (6) [redacted] Mitigation and Cleanup

(b) (6) [redacted]

January 7, 2017 – January 18, 2017

08:00 – 17:00 Daily

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

TEXAS COMMISSON ON ENVIRONMENTAL QUALITY

CITY OF AMARILLO
OPEN SPACES • ENDLESS POSSIBILITIES

9828535

INCIDENT OBJECTIVES (ICS 202)

1. Incident Name:	2. Operational Period:	
(b) (6) Mitigation and Cleanup	Date From: 1-7-2017 Time From: 08:00	Date To: 1-18-2017 Time To: 17:00

3. Objective(s):

- Provide safe working environment for all involved persons on scene
- Ensure site is secure
- Create containment and isolation area for product deactivation and storage
- Develop cleanup plan to include air monitoring
- Provide residential and perimeter monitoring
- Decontamination procedures based on Weevil-Cide product manual
- Deactivation of partially spent residual dust from Weevil-Cide pellets
- City of Amarillo (COA) Departments of Environmental Health (EH) and Building Safety (BS) will make final decision for habitation of residence
- Mattresses, couches, love seat and any bedding potentially contaminated with Bovitraz insecticide will be removed in consultation with COA EH
- Air monitoring for seven (7) cumulative days at temperatures over 50 degrees F or above with a reading of 0.0 ppm must be achieved before final sampling.
- Sampling plan will be developed by Texas Commission on Environmental Quality (TCEQ), Environmental Protection Agency (EPA), Texas Department of State Health Services (TDSHS), Bi-City-County Health Authority, and the COA Departments of EH, Office of Emergency Management (OEM) and Public Health (PH)
- After reviewing sampling results, the COA EH will determine if site can be turned over to the City to authorize rehabitation

4. Operational Period Command Emphasis:

- Scene Safety for personnel working in the affected location
- Safety for general public and residence in the immediate area
- Containment of product

General Situational Awareness

- Weather will be cool to cold
- Moisture causes product release

5. Site Safety Plan Required? Yes ☐ No ☐

Approved Site Safety Plan(s) Located at:

6. Incident Action Plan (the items checked below are included in this Incident Action Plan):

☑	ICS 202	☑	ICS 206	Other Attachments:	
☑	ICS 203	☐	ICS 207	☑	SDS
☑	ICS 204	☑	ICS 208	☐	
☐	ICS 205	☑	Map/Chart	☐	
☑	ICS 205A	☑	Weather Forecast/Tides/Currents	☐	

7. Prepared by: Name: Theresa West Position/Title: SITL Signature: Theresa West

8. Approved by Incident Commander: Name: JHANA ENDERS Signature: Jhana Enders

ICS 202	IAP Page 1	Date/Time:

David J. Durst

George K Orton III

ORGANIZATION ASSIGNMENT LIST (ICS 203)

1. Incident Name:	2. Operational Period: Date From: 1-07-2017 Date To: 1-18-2017
(b) (6) Mitigation and Cleanup	Time From: 08:00 Time To: 17:00

3. Incident Commander(s) and Command Staff:

IC/UCs	Jhana Enders (EPA)
	David Durst (TCEQ)
	Chip Orton (COA)
Deputy	Eddy Vance (TCEQ) & Shaun May (COA)
Safety Officer	UCs will serve as Agency Safety Officers
Public Info. Officer	Jesse Patton (COA)
Liaison Officer	

4. Agency/Organization Representatives:

Agency/Organization	Name

5. Planning Section:

Chief	Capt. Justin Davis
Deputy	Brad Britten
Resources Unit	
Situation Unit	Theresa West
Documentation Unit	
Demobilization Unit	
Technical Specialists	

6. Logistics Section:

Chief	
Deputy	
Support Branch	
Director	
Supply Unit	
Facilities Unit	
Ground Support Unit	
Service Branch	
Director	
Communications Unit	
Medical Unit	
Food Unit	

7. Operations Section:

Chief	Jose Ojeda	Gary Smith
Deputy		
Staging Area	Matthew Shockey	
Branch	Police	
Branch Director	Lt. Gary Trupe	Lt. Bohannon
Deputy		
Division/Group	Sgt. Chester	Corp. Ed Carroll
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Branch		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Branch		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Air Operations Branch		
Air Ops Branch Dir.		

8. Finance/Administration Section:

Chief	
Deputy	
Time Unit	
Procurement Unit	
Comp/Claims Unit	
Cost Unit	

9. Prepared by: Name: Theresa West Position/Title: SITL Signature: Theresa West

ICS 203 **IAP Page** 2 Date/Time:

ASSIGNMENT LIST (ICS 204)

1. Incident Name:
[redacted] Mitigation and Cleanup

2. Operational Period:
Date From: 1-7-2017 Date To: 1-18-2017
Time From: 08:00 Time To: 17:00

3.
Branch: **Hazmat**
Division:
Group:
Staging Area:

4. Operations Personnel: Name / Contact Number(s)

Operations Section Chief: Jose Ojeda, Weston Solutions / Gary Smith, SWS Environmental

Branch Director: (Contact appropriate incident commander - see ICS 205a)

Division/Group Supervisor:

5. Resources Assigned:

Resource Identifier	Leader	# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information
EPA Contractor	Jose Ojeda	1	Oscar Garcia	
EPA Contractor	Jose Ojeda	1	Sean Hettinger	
TCEQ Contractor	Gary Smith	1	Cameron Enders	
TCEQ Contractor	Gary Smith	1	Cody Wilson	
TCEQ Contractor	Gary Smith	1	Jeffery Juerez	

6. Work Assignments:

Weston Solutions (EPA Contractor)
Air Monitoring & Sampling

SWS Environmental (TCEQ Contractor)
Remediation of partially spent residual dust from Weevil-Cide

7. Special Instructions:

Stay safe, operate smart.
Recon Property to assess needs and actions.
Entry will be made in accordance with EPA and TCEQ policies and procedures.

8. Communications (radio and/or phone contact numbers needed for this assignment):

Name/Function	Primary Contact: indicate cell, pager, or radio (frequency/system/channel)
/	
/	
/	
/	

9. Prepared by: Name: Theresa West Position/Title: SITL Signature: Theresa West

ICS 204 **IAP Page** 3 Date/Time: rev 1/13/17

ASSIGNMENT LIST (ICS 204)

1. Incident Name:
(b) (6) Mitigation and Cleanup

2. Operational Period:
Date From: 1-7-2017 Date To: 1-18-2017
Time From: 08:00 Time To: 17:00

3.
Branch: **Police**
Division:
Group:
Staging Area:

4. Operations Personnel: Name / Contact Number(s)

Operations Section Chief: APD Lt Gary Trupe (Scene Security)/ APD Lt. Erick Bohannon (CSI)

Branch Director: Potter County Sheriff Office (PCSO) Sgt Chester

Division/Group Supervisor:

5. Resources Assigned:

Resource Identifier	Leader	# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information
Amarillo Police Dept (APD)	Lt. Bohannon	1	Corp Ed Carroll, 806-378-9449	Crime Scene Investigation (CSI)

6. Work Assignments:
Scene security.
Crime Scene Investigation (CSI).

7. Special Instructions:
Stay safe, operate smart

8. Communications (radio and/or phone contact numbers needed for this assignment):

Name/Function	Primary Contact: indicate cell, pager, or radio (frequency/system/channel)
Lt. Gary Trupe / Scene Security	806-678-3975, gary.trupe@amarillo.gov
Lt. Erick Bohannon / CSI	806-378-4268, eric.bohannon@amarillo.gov
Sgt. Chester / CSI	806-584-5191 (c), 806-378-9450 (o), bj.chester@amarillo.gov
/	

9. Prepared by: Name: Theresa West Position/Title: SITL Signature: Theresa West

ICS 204 **IAP Page** 4 Date/Time:

COMMUNICATIONS LIST (ICS 205A)

1. Incident Name:	2. Operational Period:	
(b) (6) Mitigation and Cleanup	Date From: 1-7-2017 Time From: 08:00	Date To: 1-18-2017 Time To: 17:00

3. Basic Local Communications Information:

Incident Assigned Position	Name (Alphabetized)	Method(s) of Contact (phone, pager, cell, etc.)
Unified Command - EPA	Jhana Enders - US EPA	214-789-9654, enders.jhana@epa.gov
Unified Command - TCEQ	David Durst - TCEQ	806-570-5013, david.durst@tecq.texas.gov
Unified Command Deputy - TCEQ	Eddy Vance - TCEQ	806-670-2598, eddy.vance@tecq.texas.gov
Unified Command - COA	Chip Orton - OEM	806-333-4800, chip.orton@amarillo.gov
Unified Command Deputy - COA	Shaun May - Environmental Health	850-787-1778, shaun.may@amarillo.gov
Public Information Officer - COA	Jesse Patton	806-881-8235, jesse.patton@amarillo.gov
Staging Area Manager - TCEQ Contract	Matthew Shockey - SWS Environ.	817-829-8855, mshockey@swses.com
Operations (HazMat) - TCEQ Contractor	Gary Smith - SWS Enviromental	contact TCEQ Incident Commander or Deputy
Operations (HazMat) - EPA Contractor	Jose Ojeda - Weston Solutions	contact EPA Incident Commander
Operations (Police) - COA Security	Lt. Gary Trupe - APD	806-678-3975, gary.trupe@amarillo.gov
Operations (Police) - COA CSI	Lt. Erick Bohannon - APD	806-378-4268, eric.bohannon@amarillo.gov
Operations (Police) - PCSO CSI	Sgt. BJ Chester-Potter County SO	806-584-5191(c), 806-378-9450 (o), bj.chester@amarillo.gov
Operations (Police) - COA CSI	Corp. Ed Carroll - APD	806-378-9449, edward.carroll@amarillo.gov
Planning Section Chief - COA	Justin Davis - AFD	806-676-2896, justin.davis@amarillo.gov
Deputy PSC - COA	Brad Britten - OEM	806-683-4481, brad.britten@amarillo.gov
Situation Unit Leader - COA	Theresa West - OEM	806-378-9362, theresa.west@amarillo.gov

4. Prepared by: Name: Theresa West Position/Title: SITL Signature: Theresa West

ICS 205A | **IAP Page** 5 | Date/Time: rev 1/13/17

MEDICAL PLAN (ICS 206)

1. Incident Name:	2. Operational Period: Date From: 1-7-2017 Time From: 08:00	Date To: 1-18-2017 Time To: 17:00
(b) (6) Mitigation and Cleanup		

3. Medical Aid Stations:

Name	Location	Contact Number(s)/Frequency	Paramedics on Site?
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No

4. Transportation (indicate air or ground):

Ambulance Service	Location	Contact Number(s)/Frequency	Level of Service
AMS	3048 Airport Blvd, Amarillo, TX 79118	911	☑ ALS ☐ BLS
			☐ ALS ☐ BLS
			☐ ALS ☐ BLS
			☐ ALS ☐ BLS

5. Hospitals:

Hospital Name	Address, Latitude & Longitude if Helipad	Contact Number(s)/ Frequency	Travel Time		Trauma Center	Burn Center	Helipad
			Air	Ground			
NWTHS	1501 S Coulter Amarillo, TX 79106	(806) 351-6933	5	10	☑ Yes Level: 3	☐ Yes ☑ No	☑ Yes ☐ No
BSAHS	1600 Wallace Amarillo, TX 79106	(806) 212-5750		10	☑ Yes Level: 4	☐ Yes ☑ No	☑ Yes ☐ No
					☐ Yes Level:_____	☐ Yes ☐ No	☐ Yes ☐ No
					☐ Yes Level:_____	☐ Yes ☐ No	☐ Yes ☐ No
					☐ Yes Level:_____	☐ Yes ☐ No	☐ Yes ☐ No

6. Special Medical Emergency Procedures:

In case of an emergency, contact the Incident Command .
Incident Command will notify proper agency (s) for situation.

☐ Check box if aviation assets are utilized for rescue. If assets are used, coordinate with Air Operations.

7. Prepared by (Medical Unit Leader): Name: Theresa West, SITL Signature: Theresa West

8. Approved by (Safety Officer): Name: _____ Signature: _____

ICS 206 | **IAP Page** 6 | Date/Time: _____

SAFETY MESSAGE/PLAN (ICS 208)

1. Incident Name:	2. Operational Period:	
(b) (6) Mitigation and Cleanup	Date From: 1-7-2017 Time From: 08:00	Date To: 1-18-2017 Time To: 17:00

3. Safety Message/Expanded Safety Message, Safety Plan, Site Safety Plan:

- Maintain assigned isolation perimeter
- Use appropriate PPE and Respiratory protection
- Do not come into direct contact with chemical, SKIN CONTACT HAZARD
- No entry into residence without PPE until monitoring meets EPA requirements
- RESPIRATORY HAZARD!
- Review exposure signs and symptoms prior to and after entry
- Caution there will be environmental condition temperature extremes during response.
- Product has an extreme reaction with water.
- Ensure all responders have appropriate medical monitoring.
- Review SDS

4. Site Safety Plan Required? Yes ☐ No ☐

Approved Site Safety Plan(s) Located At:

5. Prepared by: Name: Theresa West Position/Title: SITL Signature: Theresa West

ICS 208	IAP Page 7	Date/Time:

Notice of NWS' New Version of Forecast
A new version of Forecast will launch March 7, 2017.
Click here to visit the new site for details.

NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Storm easing in the West; Significant freezing rain possible from southern Plains to Mid-Atlantic Friday into the weekend

Conditions are steadily improving in California and Nevada. Flooding is still occurring on many rivers, but precipitation is much lighter than in past days. Meanwhile, conditions are coming together for a freezing rain event from the southern Plains to Mid-Atlantic starting Thursday night and lasting through Saturday. Read More >

Hazardous Weather Conditions

- Hazardous Weather Outlook
- Child Abduction Emergency

En Español Share |

Current conditions at
Amarillo, Amarillo International Airport (KAMA)
Lat: 35.22°N **Lon:** 101.72°W **Elev:** 3606ft.

Fair
52°F
11°C

Humidity 31%
Wind Speed SW 12 mph
Barometer 29.76 in (1005.8 mb)
Dewpoint 22°F (-6°C)
Visibility 10.00 mi
Wind Chill 48°F (9°C)
Last update 11 Jan 7:53 pm CST

Extended Forecast for
Amarillo TX

Tonight	Thursday	Thursday Night	Friday	Friday Night	Saturday	Saturday Night	Sunday	Sunday Night
			40%	70%	80% 80%	80%	100%	40% 20%
Partly Cloudy	Mostly Sunny	Mostly Cloudy	Chance Rain/Freezing Rain	Rain/Freezing Rain Likely	Rain/Freezing Rain then Rain	Rain	Rain	Chance Rain then Slight Chance Rain/Snow
Low: 36 °F	**High: 60 °F**	**Low: 27 °F**	**High: 38 °F**	**Low: 31 °F**	**High: 36 °F**	**Low: 34 °F**	**High: 40 °F**	**Low: 29 °F**

Detailed Forecast

Tonight
Partly cloudy, with a low around 36. West southwest wind 10 to 15 mph, with gusts as high as 20 mph.

Thursday
Mostly sunny, with a high near 60. Wind chill values between 32 and 42 early. West wind 5 to 10 mph becoming east southeast in the afternoon.

Thursday Night
Mostly cloudy, with a low around 27. Wind chill values between 19 and 24. East wind 10 to 15 mph.

Friday
A chance of drizzle or freezing drizzle before noon, then a chance of rain or freezing rain. Mostly cloudy, with a high near 38. Wind chill values between 17 and 27. East northeast wind around 10 mph. Chance of precipitation is 40%.

Friday Night
Rain or freezing rain likely. Cloudy, with a low around 31. East northeast wind 5 to 10 mph. Chance of precipitation is 70%.

Saturday
Rain or freezing rain, becoming all rain after noon. High near 36. East northeast wind 5 to 10 mph. Chance of precipitation is 80%.

Saturday Night
Rain. Low around 34. East wind 10 to 15 mph. Chance of precipitation is 80%.

Sunday
Rain. High near 40. East wind 10 to 15 mph becoming north in the afternoon. Chance of precipitation is 100%.

Sunday Night
A chance of rain before midnight, then a slight chance of rain and snow. Mostly cloudy, with a low around 29. North northwest wind around 10 mph. Chance of precipitation is 40%.

M.L.King Day
Partly sunny, with a high near 41.

Monday Night
Partly cloudy, with a low around 24.

Tuesday

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Forecast Area

Point Forecast:
Amarillo TX
35.2°N 101.82°W (Elev. 3645 ft)

Last Update:
6:35 pm CST Jan 11, 2017

Forecast Valid:
8pm CST Jan 11, 2017-6pm CST Jan 18, 2017

Additional Resources

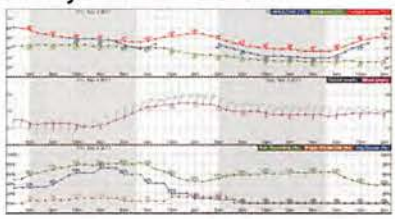
Radar & Satellite Image

Mostly sunny, with a high near 49.

Tuesday Night
Mostly clear, with a low around 27.

Wednesday
Sunny, with a high near 52.

Hourly Weather Forecast



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Home Alerts Threads Private Chats Rooms Start a Room Search this room

Amarillo, TX [ORG] / *Amarillo OEM [GROUP] /

01/02/2017 - Hazmat - (b) (6) [redacted] [ROOM]

Map

(b) (6) [redacted]

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Current Time 10:20:54

Amarillo Potter Randall OEM has secured from the scene

Messages

United Phosphorus, Inc.

Safety Data Sheet

Preparation Date 10-May-2015 **Revision date** 10-May-2015 **Revision Number:** 1

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

Product identifier

Product Description: WEEVIL-CIDE® Tablets, WEEVIL-CIDE® Pellets

Other means of identification

Item#: 12U-142
UN-No UN1397
Synonyms Not Available
Registration number(s) 70506-13; 70506-14

Recommended use of the chemical and restrictions on use

Recommended use Restricted Use Pesticide. The use of his product is STRICTLY PROHIBITED on single family and multi-family residential properties, nursing homes, schools (except athletic fields) , daycare facilities and hospitals.
Uses advised against Activties contrary to label recomendation Non labeled activities

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 - Oral	Category 2
Acute toxicity - Inhalation (Gases)	Category 1
Acute toxicity - Inhalation (Vapors)	Category 1

Label elements

EMERGENCY OVERVIEW

DANGER

hazard statements
Fatal if inhaled
FATAL IF SWALLOWED
Harmful in contact with skin

appearance light grey to Greenish

Physical state solid Pellet/tablet

Odor Garlic like 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
Do not handle until all safety precautions have been read and understood
Protect from moisture
Wear eye/face protection
Wear protective gloves
Wash hands thoroughly after handling

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
- May be harmful in contact with skin

3. Composition/information on Ingredients

Chemical name	CAS-No	Weight %	Trade secret
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

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. Immediate medical attention is required.

Skin contact 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.

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. Keep warm and make sure person can breathe freely.

Ingestion 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.

Protection of First-aiders Use personal protective equipment.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects Headache. Dizziness. Nausea. Difficulty in breathing. Diarrhea.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician Aluminim 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, hemmorhage and jaundice, and kidney hematuria and anauria. Pathology is characterized by hypoxia.
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.
In sufficient quantity, phosphine affects the liver, kidneys, lungs, nervous system, and circulatory system. Inhalation can cause lung edema, and hyperemia. 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.

5. Fire-fighting measures

Suitable extinguishing media
Carbon dioxide (CO_2). Water. Foam
Aluminum phosphide is not flammable; however, it reacts with water to produce hydrogen phosphide (phosphine) gas which may ignite spontaneously at concentrations above the LE of 1.8% v/v.

Unsuitable extinguishing media Water.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating gases and vapours.
Aluminum phosphide: 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: $2PH_3 + 4O_2 = H_2O + P_2O_5 = 2H_3PO_4$.

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 the skin and the 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/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 pertinenet 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 cotainer 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 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

Storage

Keep out of the reach of children. Protect from moisture. Store in original container.

incompatible materials

Water. 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 humdities. 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 shoul dbe protected or removed before fumigation.

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

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.

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. Socks and footwear.
Respiratory protection	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

Information on basic physical and chemical properties

Physical state	solid Pellet/tablet		
appearance	light grey to Greenish	**Odor**	Garlic like 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	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		
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	2.85	
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
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
Water. 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 humdities. 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 shoul dbe protected or removed before fumigation.
Hazardous decomposition products
Phosphine gas.

11. Toxicological Information

Information on Likely Routes of Exposure

Inhalation	Respiratory, gastrointestinal, and nervous system symptoms were noted in workers exposed to mean phosphine concentrations less than 10 ppm.
Eye contact	Irritating to eyes.
Skin contact	Reacts, PH3 generated is slightly soluble.
Ingestion	MAY BE FATAL IF SWALLOWED.
Component Information	Aluminum phosphide - Acute oral LD50 = 11.5 mg/kg Acute dermal LD50 = >5,000 mg/kg (1 hr exposure) Sensitization = Not a sensitizer Hydrogen phosphide (phosphine) gas - Inhalation = LC50 190 ppm (1 hour)

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	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^3 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.
Reproductive effects	Not Available.
STOT - Single Exposure	No information available.
STOT - repeated exposure	No information available.
Target organ effects	Respiratory System, EYES, skin.
Aspiration hazard	No information available.

Numerical Measures of Toxicity - Product information

mg/l

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

12. Ecological Information

ecotoxicity

Highly toxic to wildlife

Persistence/Degradability
No information available.

Bioaccumulation/ Accumulation
Does not bioaccumulate.

Other Adverse Effects
No information available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method	Follow label for proper disposal instructions.
Contaminated packaging	Refer to product label.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Aluminum phosphide	P006			

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

14. Transport Information

DOT	Aluminum flasks are covered under DOT special permit DOT -SP 13307 the following description is to be used: UN3048 Aluminum phosphide 6.1 PG I When shipped in cases the following description is to be used:
UN-No	UN1397

Hazard class	4.3
Subsidiary class	6.1
Packing group	PG I
Reportable Quantity (RQ):	100 lbs

TDG

ICAO

UN-No	1397
Proper shipping name	Aluminum phosphide
Hazard class	4.3
Subsidiary class	6.1
Packing group	PG I

IATA

UN-No	1397
Proper shipping name	Aluminum phosphide
Hazard class	4.3
Subsidiary class	6.1
Packing group	PG I

IMDG/IMO

UN-No	1397
Proper shipping name	Aluminum phosphide
Hazard class	4.3
Subsidiary class	6.1
Packing group	PG I
EmS No.	F-G, S-N

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 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	Not determined
DSL/NDSL	Not determined
EINECS/ ELINCS	Complies

ENCS	Does not comply
China	Complies
KECL	Complies
PICCS	Complies
AICS	Complies
TSCA	Complies

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:

Chemical name	SARA 313 - Threshold Values
Aluminum phosphide - 20859-73-8	1.0

SARA 311/312 Hazardous Categorization

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

Chemical name	RQ	CERCLA EHS RQs	RQ
Aluminum phosphide 20859-73-8	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

CERCLA

Component	RQ
Aluminum phosphide 20859-73-8 (60)	100 lb

SARA Product RQ 0

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
Aluminum phosphide 20859-73-8 (60)		P006	

Pesticide Information

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

State Regulations

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Aluminum phosphide	X	X	X		

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-13 & 70506-14

16. Other Information

NFPA **HEALTH** 3 **flammability** 4 **Instability** 0 **Physical hazard** -

Preparation Date 10-May-2015
Revision date 10-May-2015
Revision Summary
Update to GHS format

End of MSDS

Bayer HealthCare Animal Health

Material Safety Datasheet

CAS No NA
Date Issued: 27/06/2012
Bovitraz EC 12.5% Dip

Company Details

Name	Bayer (Pty) Ltd Animal Health Div	Emergency Tel	+27(0)826517327
Address	27 Wrench Road	Tel	+27(0)119215742
	Isando	Fax	+27(0)119215745
	1600		
	South Africa		

1.Product and Company Identification

Trade / Commercial Name	**Bovitraz EC 12.5% Dip**		
Chemical Name			
Formula	Amitraz		
Chemical Family	Amitraz, aromatic hydrocarbons		
Synonyms			
Un No		Hazchem Code	N/A
ERG No	0	EAC	0

2. Hazards Identification

Harmful if swallowed (R22)

Do not breathe vapour. Avoid contact with skin. If swallowed do not induce vomiting; seek medical advice immediately and show this container or label.
May cause lung damage if swallowed. Safety Phrases Do not breathe vapour. Avoid contact with skin. If swallowed do not induce vomiting; seek medical advice immediately and show this container or label.

3. Composition

Hazardous Components

HAZARDOUS SUBSTANCE
NON-DANGEROUS GOODS

Contains:
Amitraz* 12.5 %
Solvent naphtha (petroleum), heavy aromatic >60%

* Amitraz ia an amidine; M,N-bis(2,4-dimethylphenyliminomethyl)methylamine

4. First Aid Measures

First Aid Skin

Remove contaminated clothing. Wash affected area immediately with soap and water. Seek medical attention if required.

	General: Remove victim from contaminated area. If there is a risk of unconsciousness, position and transport in a stable lateral position. Remove soiled or soaked clothing immediately. Advice to doctor: See Section 11. Onset of clinical signes is within 4-6 hours. There is no specific antidote for amitraz. Apply standard decontamination procedures and symptomatic treatment considering possible solvent effects as described below.
First Aid Eyes	Flush eye immediately with lage amounts of water or normal saline, occasionally lifting eyelids, until no evidence of chemcal remains. Seek medical attention if eye irritation persists.
First Aid Ingested	If vomiting occurs keep head lower than hips to help prevent aspiration. Seek medical attention if required.
First Aid Inhalation	Inhalation of this product is a risk. In this event remove from exposure and perform atificial respiration if necessary.

5. Fire Fighting Measures

Extinguishing media: Sprayed water jet, foam, dry powder, CO2, sand.
Fire and explosion hazards: Combustible product. Product has a flash point of > 95 °C.
Hazardous combustion products: Thermal decomposition products include hydrogen cyanide, carbon monoxide, and nitrogen oxides.

Fight fire in early stages if safe to do so. Wear respiratory protection.
Well ventilated areas: full face mask with combination filter,(offers no pretection against carbon monoxide).
Enclosed premises: respirator with independent air supply.
Contain fire-fighting water.

6. Accidental Release Measures

Use any personal protective equipment listed in Section 8.
Prevent spillage from spreading or entering soil, waterways and drains.

Take up with absorbent material such as sawdust, peat or chemical binder. Fill material along with any contaminated soil etc., into sealable containers. Clean affected area with an aqueous detergent and a small amount of water. Absorb this with hydrated lime and place in a sealable container. Spread hydrated lime over the affected area. On completion of clean-up remove and wash all protective clothing and equipment with detergent
and water. Place cleaning materials into the same container.

Do not eat, drink or smoke during clean-up operation.

7. Handling And Storage

Pour the product using a funnel or other equipment to avoid splashing and glugging. Suitable container materials:
HDPE, LDPE

To maintain product quality, store below 30 degrees Centigrade
Store away from food, drink, feed, pets and uniformed prersons.
Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits	N/A
Controls	N/A
Personal Protection	Wear suitable protective clothing to prevent contamination of skin, eyes and personal clothing.

9. Physical & Chemical Properties

Physical: State Clear liquid
Colour: Yellow to yellow-brown
Odour: Slight characteristic smell
Boiling Point: Boiling range 215-300°C
Solidifying point: Not available
Density approx: 1.00-1.02 kg/L at 20°C
Vapour Pressure: 0.005 hPa at 20°C (amitraz)
Viscosity: Not available
Solubility in Water: Emulsifiable
pH: Not available
Flash Point: >95°C
Ignition Temperature: Not available
Explosive Limits: Not available

10. Stability And Reactivity

Conditions to Avoid	Avoid oxidising agents
Incompatible Materials	None
Other	Always store in a securely closed and properly labelled container. Store below 30 degrees Centigrade Keep away from food, feed, pets and uniformed prersons. Keep out of reach of children Thermal decomposition products include hydrogen cyanide, carbon monoxide, and nitrogen oxides.

11. Toxicological Information

Oral LD 50 Rat 1 000 - 2 000 mg/kg (of amitraz)
Dermal LD 50 Rat > 2 000 mg/kg (of amitraz)

Inhalation LC50 (rat) 65 mg/L (6h)(dust)(amitraz)

Eye: may irritate the eye
Skin: may irritate the skin
None of the ingredients of the formulation have been shown to produce reproductive or teratogenic effects.
None of the ingredients of the formulation have been shown to produce mutagenic effects.
Amitraz has been shown in animal tests to have no carcinogenic potential.
Other ingredients are not classified as carcinogens.

12. Ecological Information

Octanol/Water Partition log P = 5.5 at pH 5.8 and 25°C Co-efficient
Ecotoxicity

Fish toxicity
amitraz
LC50 0.74 mg/L (96h) Rainbow trout (Salmo gairdneri)
LC50 0.45 mg/L (96h) Bluegill (Lepomis macrochirus).

Daphnia toxicity
amitraz
LC50 0.035 mg/L (48h) Water flea (Daphnia magna)
Toxic to fish and horses. Do not contaminate ponds, waterways or drains with product or used containers.

13. Disposal Considerations

Disposal Method Product	After Intended Use Disposal of unwanted spraywash should be into a pit of adequate size on level ground and away from watercourses, drains, dams, and tree roots. Triple or (preferably) pressure rinse empty containers, adding rinsate to spray wash. Do not dispose of undiluted chemicals on site. If not available bury containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt. After spill or accident Dispose of sealed containers at an approved local waste disposal site.
Disposal Method Packaging	Rinse empty container three times with a volume of water equal to at least one tenth of that of the container and add the rinsings to the contents of the dip. Thereafter perforate and flatten the container, and bury it in an area reserved for this purpose as described above, under the section entitled Disposal method product.

14. Transport Information

		Hazchem Code	N/A
ERG No	0	EAC	0
ARD/RID Class	NR	ARD/RID Hazard ID No	NR
IMDG-Shipping Name	NOT CONTROLLED SUBSTANCE		
IMDG Code	N/A	IMDG-Packaging Group	N/A
Marine Pollutant	No		
Class			
Subsidiary Risks	None		

15. Regulatory Information

EEC Hazard Classification

Risk Phases	R22 Harmful if swallowed
Safety Phases	S2 "Keep out of reach of children"
National Legislation	National Road Traffic Act, 1996 (Act 93 of 1996) Fire Brigade Services Act, 1987 (Act 99 of 1987) Occupational Health and Safety Act,1993 (Act 85 of 1993) NON HAZARDOUS FOR TRANSPORT

16. Other Information

Reason for Alteration: General update. Revision 4. Revision date: 20 March 2008

The information contained herein is based on the present state of our knowledge.
It characterizes the product with regard to the appropriate safety precautions.
It does not represent a guarantee of the properness of the product.:

LAST PAGE

All information is given in good faith but without guarantee in respect of accuracy & no responsibility is accepted for errors or omissions or the consequences thereof.

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