

1 PRODUCT CHEMISTRY AND COMPANY IDENTIFICATION

Product Name: XylPhi-PD
 EPA Registration Number: 93909-1
 Intended Use: Biological control for reduction of Pierce's Disease in grapes. For use in organic production.
 Restrictions of Use: Uses other than those recommended.
 Manufacturer/Supplier: A&P Inphatec, LLC
 1060 E. Meadow Circle
 Palo Alto, CA 94303
 In Case of Emergency: Chemtrec: 1-800-424-9300 and/or 703-527-3887

2 HAZARDS IDENTIFICATION

2.1 Product hazard category

This material is NOT considered hazardous by the OSHA Hazard Communication Standard (29 CFR § 1910.1200)

2.2 Label Content

Not a hazardous substance or mixture

2.3 Other hazards

Hazards Not Otherwise Classified (HNOC): None known.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Mixture

Component	Concentration
Bacteriophage active against <i>Xylella fastidiosa</i> *	0.00013%
Other ingredients	99.99987%

*Contains a minimum of 5×10^9 plaque forming units (PFU) per milliliter of product

The exact composition/components have been withheld due to trade secret.

4 FIRST AID MEASURES

4.1 Description of first aid measures

Due to the composition and type of the substances present in the product, no particular warnings are necessary. Adverse effects are not expected from this product.

General Advice: If you feel unwell, seek medical advice (show the label where possible).
 Eye Contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
 Inhalation: Take the victim into open air. Allow the victim to rest.
 Skin Contact: Take off contaminated clothing.
 Ingestion: If accidentally ingested, seek immediate medical attention. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

4.2 Most important health effects, both acute and delayed

No known acute or delayed effects from exposure to the product.

4.3 Indication of immediate medical attention and special treatment.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

5 FIREFIGHTING MEASURES

Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific hazard arising from the chemical:	No specific hazards are expected.
Special protective equipment for fire-fighters:	According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:	This product does not require special equipment for handling under normal use. Use gloves if prolonged or repeated use irritates skin. If airborne dust levels or mist are high, use protective eyewear.
Environmental precautions: Methods and materials for containment and cleaning up:	Product not classified as hazardous for the environment, avoid spillage as much as possible. Contaminated area should be cleaned up with an appropriate de-contaminator. Dispose of contaminates in accordance with existing federal state, provincial and or local environmental controls laws.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

The product does not require special handling measures, the following general measures are recommended:

Protective measures:	Use appropriate personal protective equipment as needed. Applicators and other handlers should wear long sleeved shirt, long pants, and closed toed shoes plus socks. Never use pressure to empty the containers. They are not pressure-resistant containers. In the application area, smoking, eating, and drinking must be prohibited. Follow legislation on occupational health and safety. Keep the product in containers made of a material identical to the original.
Conditions for safe storage:	Store in original container. Store this product in a dry area at either room temperature or under refrigerated conditions (36 – 80°F, 2 – 27°C), away from direct sunlight and extreme heat. Inappropriate storage may cause degradation of the product and that would decrease product efficacy.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Occupational exposure limits

The product does NOT contain substances with PEL, ACGIH, or TLV values.

8.2 Exposure Controls

Protective measures:	Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system. If the recommended technical measures are observed, no individual protection equipment is necessary.
Appropriate engineering controls:	General industrial hygiene practice.

8.3 Personal Protection

Eye/face protection:	Not required. If necessary, use equipment for eye protection tested and approved under appropriate government standards such as NIOSH.
Skin protection:	For repeated skin exposure or if product causes irritation handle with gloves. Gloves should be inspected prior to use. Use proper glove removal techniques to avoid skin contact.
Body protection:	Choose body protection appropriate to the concentration and exposure and to the work place environment.
Respiratory protection:	Not required. In case of insufficient ventilation, wear suitable respiratory equipment. NIOSH approved, air-purifying organic vapor respirator.
Hygiene measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Physical State:	Clear liquid
Odor:	None.
Odor threshold:	Not measured.

Other Properties:

pH:	6.2 – 7.4 (1%w/w)
Melting point/freezing point:	0°C
Initial boiling point and boiling range:	100°C
Flash point:	Not applicable.
Evaporation rate:	Not measured.
Flammability (solid, gas):	Non-flammable.
Upper/lower flammability or explosive limits:	Non-flammable.
Vapor pressure:	Not measured.
Vapor density:	Not measured.
Relative density:	0.982 g/mL (20 °C)
Solubilities:	Soluble in water
Partition coefficient (n-octanol/water):	Not measured.
Auto-ignition temperature:	Non-flammable.
Decomposition temperature:	Not measured.
Viscosity (Kinematic):	1.0 cSt (20 °C), 0.7 cSt (40°C)

10 STABILITY AND REACTIVITY

Reactivity:	The product does not present hazards by their reactivity.
Chemical stability:	Stable under the recommended storage conditions.
Possibility of hazardous reactions:	None known.
Conditions to avoid:	Avoid elevated temperatures. Material will degrade when storage conditions are not followed.
Incompatible materials:	None known.
Hazardous decomposition products:	None known.

11 TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure: Dermal contact.

11.1 Potential acute health effects

Eye contact: None expected.
 Inhalation: None expected.
 Skin Contact: None expected.
 Ingestion: None expected.

11.2 Potential chronic health effects

Short term exposure:

Potential immediate effects: Not available.

Long term exposure:

Potential delayed effect: Not available.

General: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

11.3 Information on toxicological effects

Acute toxicity:

Result	Species	Dose	Test
LD50 Dermal	Rat	> 5000 mg/kg	EPA-OPPTS 870.1200
LD50 Oral	Rat	> 5000 mg/kg	EPA-OPPTS 870.1100

Irritation/Corrosion:

	Species	Results	Test
Dermal	Rabbit	not irritating	EPA-OPPTS 870.2500
Eye	Rabbit	not irritating	EPA-OPPTS 870.2400

Sensitization: Not a skin sensitizer in guinea pigs. EPA-OPPTS (870.2600)

Chronic Toxicity: No data available.

Germ Cell Mutagenicity: No data available.

Reproductive Toxicity: No data available.

Specific target organ toxicity (single exposure): No data available.

Specific target organ toxicity (repeated exposure): No data available.

Aspiration hazard: No data available.

Carcinogenicity:

IARC:	No component of this product present at levels greater than or equal to 0.1% is identified probable, possible or confirmed carcinogen.
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified probable, possible or confirmed carcinogen.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified probable, possible or confirmed carcinogen.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is identified probable, possible or confirmed carcinogen.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12 ECOLOGICAL INFORMATION

12.1 Ecotoxicity

The proposed use will not result in significant exposure to the environment.

12.2 Persistence and degradability

Bacteriophages do not persist in the environment.

12.3 Bioaccumulation potential

No information available regarding accumulation potential.

12.4 Mobility in soil

No information is available regarding mobility in soil.

12.5 Other adverse effect

No data available.

13 DISPOSAL CONSIDERATIONS

Disposal methods:	To avoid waste, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).
Container handling:	Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

14 TRANSPORT INFORMATION

Regulatory information	UN number	Proper shipping name	Classes	Packing Group	Label	Additional information
DOT (US)	-	-	-	-	-	Not a dangerous good
IMDG Class	-	-	-	-	-	Not a dangerous good
IARA-DGR Class	-	-	-	-	-	Not a dangerous good

15 REGULATORY INFORMATION

15.1 Pesticide Registration (PR) Notice 2012-1 Material Safety Data Sheets as Pesticide Labeling

This chemical is a pesticide product registered by the United States Environmental Protection Agency (EPA Registration Number: 93909-1) 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 (SDS), and for workplace labels of non-pesticide chemicals. The Signal Word (per 40 CFR 156.64), First Aid Box (per 40 CFR 156.68) and Hazards to Humans and Domestic Animals (per 40 CFR 156.70) are not required because the product is classified as Toxicity Category IV for all routes of exposure and is negative for dermal sensitization. The pesticide label also includes other important information, including directions for use.

15.2 US Federal Regulations

SARA 311/312: None

SARA Title III Section 302: None

Extremely Hazardous

Substances SARA Title III

Section 313 Toxic Chemicals:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

15.3 State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Proposition 65:

This product does not contain any intentionally added reportable Proposition 65 chemicals.

16 OTHER INFORMATION

Date prepared: April 29, 2020

Hazard Material information system

Health	0
Flammability	0
Physical Hazards	0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme
 *=Chronic

National Fire Protection Association (U.S.A)



Health	0
Fire	0
Reactivity	0
Special	-

0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.