

## CLARIVA PN

Date: 3/25/2015  
 Replaces: 10/17/2014

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **CLARIVA PN**  
 Product No.: A19824C  
 Use: Nematicide  
 Manufacturer: Syngenta Crop Protection, LLC  
 Post Office Box 18300  
 Greensboro NC 27419  
 Manufacturer Phone: 1-800-334-9481

**Emergency Phone: 1-800-888-8372**

### 2. HAZARDS IDENTIFICATION

Classifications: Not Applicable  
 Signal Word (OSHA): Not Applicable  
 Hazard Statements: Not Applicable

Hazard Symbols:

Precautionary Statements: Not Applicable

Other Hazard Statements: None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Glycerin	Glycerin	56-81-5	Trade Secret
Other ingredients	Other ingredients	Trade Secret	85.0%
Pasteuria Nishizawae Pn1	Pasteuria Nishizawae Pn1	Not Assigned	15.0%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

### 4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-

## CLARIVA PN

Date: 3/25/2015

Replaces: 10/17/2014

- 8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact:** If in eyes: 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. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Inhalation:** If inhaled: 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 Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

Not Applicable

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

### 7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Not Applicable

## CLARIVA PN

Date: 3/25/2015  
 Replaces: 10/17/2014

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Glycerin	15 mg/m <sup>3</sup> TWA (total); 5 mg/m <sup>3</sup> TWA (respirable)	Not Established	Not Established	Not Applicable
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Pasteuria Nishizawae Pn1	Not Established	Not Established	Not Established	Not Applicable

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

**Ingestion:**

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

**Eye Contact:**

Where eye contact is likely, use splash-proof chemical goggles.

**Skin Contact:**

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

**Inhalation:**

A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH certified respirator with any N, R, P or HE filter.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Brown to dark brown liquid

Odor: Not Available

Odor Threshold: Not Available

pH: Not Available

Melting point/freezing point: Not Available

Initial boiling point and boiling range: Not Available

Flash Point (Test Method): Not Available

Flammable Limits (% in Air): Not Available

Flammability: Not Available

Vapor Pressure: Pasteuria Nishizawae Pn1 Not Available

Vapor Density: Not Available

Relative Density: 1.04 g/ml

## CLARIVA PN

Date: 3/25/2015  
 Replaces: 10/17/2014

Solubility (ies): Pasteuria Nishizawae Pn1 Not Available  
 Partition coefficient: n-octanol/water: Not Available  
 Autoignition Temperature: Not Available  
 Decomposition Temperature: Not Available  
 Viscosity: Not Available  
 Other: None

### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive.  
 Chemical stability: Stable under normal use and storage conditions.  
 Possibility of hazardous reactions: Will not occur.  
 Conditions to Avoid: None known.  
 Incompatible materials: None known.  
 Hazardous Decomposition Products: Not Available

### 11. TOXICOLOGICAL INFORMATION

#### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Not Applicable

Delayed, immediate and chronic effects of exposure: Not Applicable

#### Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	> 5000 mg/kg body weight (based on data obtained from similar substance[s])
Dermal:	Dermal (LD50 Rabbit) :	> 2000 mg/kg body weight (based on data obtained from similar substance[s])
Inhalation:	Inhalation (Not available at this time.) :	Not Available
Eye Contact:	No adverse effects (applies to the technical material)	
Skin Contact:	No adverse effects (applies to the technical material)	
Skin Sensitization:	No adverse effects (applies to the technical material)	

#### Reproductive/Developmental Effects

Pasteuria Nishizawae Pn1: Not Available

## CLARIVA PN

Date: 3/25/2015  
 Replaces: 10/17/2014

### Chronic/Subchronic Toxicity Studies

Pasteuria Nishizawae Pn1: Not Available

### Carcinogenicity

Pasteuria Nishizawae Pn1: Not Available

Chemical Name	NTP/IARC/OSHA Carcinogen
Glycerin	No
Other ingredients	No
Pasteuria Nishizawae Pn1	No

### Other Toxicity Information

Applies to the Technical Material

Acute Oral Toxicity/Pathogenicity: Not toxic and/or pathogenic to rats when administered by oral gavage in a single dose of  $1.6 \times 10^{-9}$  spores per animal.

Acute Pulmonary Toxicity/Pathogenicity: Not toxic and/or pathogenic to rats when administered by intratracheal instillation in a single dose of  $1.6 \times 10^{-8}$  spores per animal.

Acute Injection Toxicity/Pathogenicity (Intraperitoneal): Not toxic and/or pathogenic to rats when administered intravenously in a single dose of  $1.0 \times 10^{-9}$  spores per animal.

No hypersensitivity incidents, including immediate-type or delayed-type reactions of humans have been reported during research, development testing and production of this or related bacterial materials.

### Toxicity of Other Components

Glycerin

Repeated or prolonged exposure to concentrated solutions may result in dermatitis.

Other ingredients

Not Applicable

### Target Organs

#### Active Ingredients

Pasteuria Nishizawae Pn1: Not Available

#### Inert Ingredients

Glycerin: Skin

Other ingredients: Not Applicable

## 12. ECOLOGICAL INFORMATION

### Eco-Acute Toxicity

Pasteuria Nishizawae Pn1:  
 Not Available

### Environmental Fate

Pasteuria Nishizawae Pn1:  
 Not Available

## CLARIVA PN

Date: 3/25/2015

Replaces: 10/17/2014

---

### 13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

---

### 14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA

Not regulated

Comments

Water Transport - International

Not regulated

Air Transport

Not regulated

---

### 15. REGULATORY INFORMATION

Pesticide Registration:

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:

Caution: Harmful if inhaled. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse.

EPA Registration Number(s):

100-1524

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: None

CERCLA/SARA 304 Reportable Quantity (RQ):

Not Applicable

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

## CLARIVA PN

Date: 3/25/2015  
Replaces: 10/17/2014

### 16. OTHER INFORMATION

#### NFPA Hazard Ratings

Health: 1  
Flammability: 1  
Instability: 0

#### HMIS Hazard Ratings

Health: 1  
Flammability: 1  
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: A

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 6/17/2013

Revision Date: 3/25/2015

Replaces: 10/17/2014

Section(s) Revised: 4, 3, 10

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.