Safety Data Sheet

BESIEGE INSECTICIDE

Date: 6/30/2015
Replaces: 2/2/2015

1. PRODUCT IDENTIFICATION

Product identifier on label: **BESIEGE INSECTICIDE**
Product No.: A15397B
Use: Insecticide
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: Carcinogenicity: Category 1A
Oral: Category 3
Signal Word (OSHA): Danger
Hazard Statements: Toxic if swallowed
May cause cancer

Hazard Symbols:

Precautionary Statements: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, protective clothing, eye protection.
If swallowed: Immediately call a poison center, doctor or Syngenta. Rinse mouth.
If exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Crystalline Silica, Quartz and Cristobalite	Crystalline Silica, Quartz and Cristobalite	14808-60-7	Trade Secret
1,2-Propanediol	Propylene Glycol	57-55-6	Trade Secret
Attapulgite Clay	Attapulgite Clay	12174-11-7	Trade Secret
Other ingredients	Other ingredients	Trade Secret	86.11%
[1a(S*),3a(Z)]-cyano(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	Lambda-Cyhalothrin	91465-08-6	4.63%
3-Bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide	Chlorantraniliprole	500008-45-7	9.26%

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 contol 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 800-888-8372 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:

May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours. 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:

Store locked up.

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
Crystalline Silica, Quartz and Cristobalite	10 mg/m³/(%SiO2+2) (respirable dust)	0.025 mg/m³ (respirable silica)	0.05 mg/m³ (respirable dust)	NIOSH
Propylene Glycol	Not Established	Not Established	10 mg/m³ TWA	AIHA
Attapulgite Clay	Not Established	Not Established	Not Established	Not Applicable
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Lambda-Cyhalothrin	Not Established	Not Established	0.04 mg/m³ TWA (skin)	Syngenta
Chlorantraniliprole	Not Established	Not Established	10 mg/m³ TWA (Total); 5 mg/m³ TWA (Resp)	Manufacturer

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 chemical splash goggles.

Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.
Stringent housekeeping measures are necessary to prevent translocation of the material from contaminated work surfaces to uncontaminated surfaces (railings, doors, etc.). Unprotected contact with such translocated material can result in paresthesia effects (see Section 11 of MSDS). Do not touch unprotected skin areas (face) with contaminated gloves or clothing.

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 approved respirator with any N, R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light beige to brown liquid

Odor: Weak; uncharacterisitic

Odor Threshold: Not Available

pH: 4.0 - 8.0 (1% w/v @ 68 - 77°F (20 - 25°C))

Melting point/freezing point: Not Applicable

Initial boiling point and boiling range: Not Available

Flash Point (Test Method): > 214°F (Pensky-Martens CC)

Flammable Limits (% in Air): Not Available

Flammability: Not Applicable

Vapor Pressure: Chlorantraniliprole 1.6 x 10(-9) mm Hg @77° F (25° C)
Lambda-Cyhalothrin 1.5 x 10(-9) mmHg @ 68°F (20°C)

Vapor Density: Not Available

Relative Density: 1.08 g/cm³ @ 68°F (20°C)

Solubility (ies): Chlorantraniliprole 1.023 mg/l @ 68°F (20°C)
Lambda-Cyhalothrin 0.004 mg/l

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: > 1202°F

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: None known.

11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Itching, tingling, burning or numbness

Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Paresthesia

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

Ingestion:	Oral (LD50 Female Rat) :	98.11 mg/kg body weight
Dermal:	Dermal (LD50 Rabbit) :	> 5000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	> 4.05 mg/l air - 4 hours
Eye Contact:	Non-Irritating (Rabbit)	
Skin Contact:	Mildly Irritating (Rabbit)	
Skin Sensitization:	Not Available	

Reproductive/Developmental Effects

Chlorantraniliprole: Did not show developmental or reproductive effects in animal experiments.

Lambda-Cyhalothrin : Not a developmental or reproductive toxicant.

Chronic/Subchronic Toxicity Studies

Chlorantraniliprole: There were no adverse effects in subchronic feeding studies in rats and dogs. There was a decreased body weight gain at high doses in a 28-day feeding study in mice.

Lambda-Cyhalothrin : Reversible paresthesia (abnormal skin sensation).
Reversible clinical signs of neurotoxicity in mammals.

Carcinogenicity

Chlorantraniliprole: Chlorantraniliprole was not carcinogenic in either a 2-year study in rats or an 18-month study in mice.

Lambda-Cyhalothrin : No treatment-related tumors in rats or mice.

Chemical Name	NTP/IARC/OSHA Carcinogen
Crystalline Silica, Quartz and Cristobalite	IARC 1; ACGIH A2
1,2-Propanediol	No
Attapulgite Clay	IARC 2B

Other ingredients	No
[1a(S*),3a(Z)]-cyano(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	No
3-Bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide	No

Other Toxicity Information

In humans, contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. The effect may result from splash, aerosol, or hot vapor contact, or transfer to the face from contaminated gloves and hands. The symptoms normally disappear within 24 hours. Face and genital areas are especially susceptible to this effect. Paresthesia involving the face is also known as "subjective facial sensation" or SFS.

Toxicity of Other Components

Attapulgite Clay

Prolonged or repeated inhalation of dust may cause a disabling, progressive pulmonary fibrosis. Inhalation hazard may not exist in the liquid form. May cause eye irritation.

Crystalline Silica, Quartz and Cristobalite

Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans. Experimental animals exposed to crystalline silica developed respiratory tract cancers.

Other ingredients

Not Applicable

Propylene Glycol

Reported to cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea. Also, eye irritation may occur with lacrimation but no residual discomfort or injury. Prolonged contact to skin may cause mild to moderate irritation and possible allergic reactions. Chronic dietary exposure caused kidney and liver injury in experimental animals.

Target Organs

Active Ingredients

Chlorantraniliprole:	Not Applicable
Lambda-Cyhalothrin :	Liver, nervous system

Inert Ingredients

Attapulgite Clay:	Lung, eye
Crystalline Silica, Quartz and Cristobalite:	Respiratory tract
Other ingredients:	Not Applicable
Propylene Glycol:	CNS, kidney, liver

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Lambda-Cyhalothrin :

Fish (Rainbow Trout) 96-hour LC50 0.19 ppb

Bird (Mallard Duck) LD50 Oral > 3950 mg/kg

Invertebrate (Water Flea) 48-hour EC50 0.04 ppb

Chlorantraniliprole:

Fish (Rainbow Trout) 96-hour LC50 12.6 mg/l

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.0204 mg/l

Green Algae 72-hour ErC50 > 13 mg/l

Environmental Fate

Chlorantraniliprole:

The following information is for the active ingredient, chlorantraniliprole.
According to the results of tests of biodegradability this product is not readily biodegradable.

Lambda-Cyhalothrin :

The information presented here is for the active ingredient, lambda-cyhalothrin.
Not persistent in soil or water. Immobile in soil. Sinks in water (after 24 h).

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
Proper Shipping Name: Pyrethroid Pesticides, Liquid, Toxic, (Lambda-Cyhalothrin)
Hazard Class: Division 6.1
Identification Number: UN 3352
Packing Group: PG III

Comments

Water Transport - International
Proper Shipping Name: Pyrethroid Pesticides, Liquid, Toxic, (Lambda-Cyhalothrin), Marine Pollutant
Hazard Class: Division 6.1
Identification Number: UN 3352
Packing Group: PG III

Air Transport
Proper Shipping Name: Pyrethroid Pesticides, Liquid, Toxic, (Lambda-Cyhalothrin)
Hazard Class: Division 6.1
Identification Number: UN 3352
Packing Group: PG III

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:

Warning: May be fatal if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

EPA Registration Number(s):
100-1402

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard

Section 313 Toxic Chemicals: None

California Proposition 65:
This product contains a chemical known to the State of California to cause cancer.

CERCLA/SARA 304 Reportable Quantity (RQ):
None

RCRA Hazardous Waste Classification (40 CFR 261):
Not Applicable

TSCA Status:
Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings		HMIS Hazard Ratings	
Health:	2	Health:	2
Flammability:	1	Flammability:	1
Instability:	0	Reactivity:	0

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

Syngenta Hazard Category: D,S

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 1/13/2011
Revision Date: 6/30/2015 Replaces: 2/2/2015
Section(s) Revised: 2, 4, 11

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