

## CLARELLE

Date: 7/8/2015  
Replaces: 3/20/2015

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **CLARELLE**  
Product No.: A8164B  
Use: Growth Regulator  
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: Inhalation: Category 4  
Reproductive Toxicity: Category 2  
Signal Word (OSHA): Warning  
Hazard Statements: Harmful if inhaled  
Suspected of damaging fertility or the unborn child

Hazard Symbols:



Precautionary Statements: Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Avoid breathing mist, vapors, spray.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves, protective clothing, eye protection.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
If exposed or concerned: Get medical advice/attention.  
Call a poison center, doctor or Syngenta if you feel unwell.  
Store locked up.  
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	Common Name	CAS Number	Concentration
1,2-Propanediol	Propylene Glycol	57-55-6	Trade Secret
Other ingredients	Other ingredients	Trade Secret	<77.1%
(R*,R*)-beta-[(4-chlorophenyl)methyl]-alpha(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol	Paclobutrazol	76738-62-0	22.9%

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 800-888-8372 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:

Fire will spread by burning with flame.

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

See also Sec. 7.

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.

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### 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:

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

This material would not normally become readily charged.

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
Propylene Glycol	Not Established	Not Established	10 mg/m <sup>3</sup> TWA	AIHA
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Paclobutrazol	Not Established	Not Established	5.0 mg/m <sup>3</sup> TWA	Syngenta

#### 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.

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### Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber 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 approved respirator with any N, R, P or HE filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-white to light brown liquid

Odor: Not determined

Odor Threshold: Not Available

pH: Not Available

Melting point/freezing point: Not Applicable

Initial boiling point and boiling range: 212 °F

Flash Point (Test Method): >221°F

Flammable Limits (% in Air): Not Available

Flammability: Not Applicable

Vapor Pressure: Paclobutrazol 7.5 x 10<sup>(-9)</sup> mmHg @ 68°F (20°C)

Vapor Density: Not Available

Relative Density: 1.0650 - 1.0950 g/cm<sup>3</sup>

Solubility (ies): Paclobutrazol 26 mg/l @ 68°F (20°C)

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: None known.

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### 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) :	> 2000 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 2000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	> 2.5 mg/l air - 4 hours
Eye Contact:	Mildly Irritating (Rabbit)	
Skin Contact:	Non-Irritating (Rabbit)	
Skin Sensitization:	Not a skin sensitizer in animal tests.	

#### Reproductive/Developmental Effects

Paclobutrazol: Dose-related increase in minor skeletal defects and evidence of fetotoxicity in rat studies (urogenital defects). No adverse effects seen on reproductive parameters or reproductive organs in a 2-generation rat study. Liver effects were noted at the highest dose level in the FO females and male and female offspring.

No evidence of neurotoxicity from subacute or longer-term studies in mammals. No specific neurotoxicity studies have been conducted.

#### Chronic/Subchronic Toxicity Studies

Paclobutrazol: Evidence of liver toxicity in repeat dose rodent studies at high dose levels. (1250 ppm, 90-day and 2-year tests). No effects noted in rabbit studies.

Non-genotoxic in a range of in vitro and in vivo short-term tests. No indication that paclobutrazol is an endocrine disruptor.

#### Carcinogenicity

Paclobutrazol: No evidence of carcinogenicity in 2-year rodent studies.

Chemical Name	NTP/IARC/OSHA Carcinogen
1,2-Propanediol	No
Other ingredients	No
(R*,R*)-beta-[(4-chlorophenyl)methyl]- alpha(1,1-dimethylethyl)-1H-1,2,4-triazole-1- ethanol	No

#### Other Toxicity Information

None

#### Toxicity of Other Components

Other ingredients

Not Applicable

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### 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

Paclobutrazol: Liver

#### Inert Ingredients

Other ingredients: Not Applicable

Propylene Glycol: CNS, kidney, liver

## 12. ECOLOGICAL INFORMATION

### Eco-Acute Toxicity

#### Paclobutrazol:

Fish (Bluegill Sunfish) 96-hour LC50 23.6 ppm

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 33.2 ppm

Bird (Mallard Duck) 14-day LD50 > 7913 mg/kg

### Environmental Fate

#### Paclobutrazol:

The information presented here is for the active ingredient, paclobutrazol. Not persistent in soil. Stable in water. Mixes 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

Not regulated

### Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Paclobutrazol), Marine Pollutant

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

### Air Transport

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Paclobutrazol)

Hazard Class: Class 9

Identification Number: UN 3082

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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:

Caution: Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing.

EPA Registration Number(s):

100-1412

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: None

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

Health: 1  
 Flammability: 1  
 Instability: 0

HMIS Hazard Ratings

Health: 2  
 Flammability: 1  
 Reactivity: 0

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

Syngenta Hazard Category: D

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 5/6/2011

Revision Date: 7/8/2015

Replaces: 3/20/2015

Section(s) Revised: 2, 4, 11, 16

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.

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