

Release® Plant Growth Regulator Soluble Powder

SDS# VBC-0115 Revision 0

ISSUED 11/30/15

[Classification according to OSHA; 29 CFR § Part 1910.1200, (3/12/2012)]

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** Release® Plant Growth Regulator Soluble Powder**Synonyms:** ProGibb 10%, ProGibb 10% SP, ProGibb Plus 10% SP, Berelex 10% SP**EPA Reg. No.:** 73049-6**Code Number:** 11849**List Number:** 05208**Chemical Family:** Gibberellins, naturally occurring plant growth regulators**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** Pesticide (Plant Growth Regulator)**Uses Advised Against:** It is a violation of Federal Law to use this product in a manner inconsistent with its Pesticide labeling.**1.3 Details of the supplier of the Safety Data Sheet****Supplied By:** Valent BioSciences Corporation
870 Technology Way
Libertyville, Illinois 60048**1.4 EMERGENCY TELEPHONE NUMBERS****Emergency Health or Spill:**

Outside the United States: (+1) 651-632-6184

Within the United States: 877-315-9819

2. HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

Specific Target Organ Toxicity (Repeated Exposure), Category 1 (Respiratory)

2.2 Labeling Elements**Symbol**

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Signal Word

DANGER

Hazard Statement(s)

Causes damage to the lung through prolonged or repeated exposure (kaolinite).

Precautionary Statement:

Prevention

- Do not breathe dust/fume/gas/mist/vapor/spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.

Response

Get medical advice/attention if you feel unwell.

Storage

Store in a cool, dry and ventilated place.

Disposal

Dispose of contents/container in accordance with local/regional/national/regulations.

2.3 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Active Ingredients - Name	Classification	Percent
77-06-5	Gibberellic acid (GA ₃)	Eye irritant, Category 2B	10.0

CAS #	Component Other-Ingredient Name	Classification	Percent
1332-58-7	Kaolinite	Eye irritant, Category 2, Skin irritant, Category 2, Specific Target Organ Toxicity (Single Exposure), Category 3 (Resp), Specific Target Organ Toxicity (Repeated Exposure), Category 1 (Resp)	7.5
Various	Trade secret	Not classified	82.5

4. FIRST AID MEASURES

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4.1 Description of First Aid Measures**GENERAL:** In all cases of doubt, seek medical attention.**EYES:** Remove from source of exposure. Flush with copious amounts of water. Hold eye open and rinse gently and slowly with water for 15-20 minutes. Remove contact lenses, if present and easy to do, after the first 5 minutes, then continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**SKIN:** Remove from source of exposure. Take off contaminated clothing. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.**INGESTION:** Remove from source of exposure. Do NOT induce vomiting. Give large quantities of water. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.**INHALATION:** Remove from source of exposure. Move person to fresh air. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, and then give artificial respiration.**4.2 Most important Symptoms and Effects, both Acute and Delayed****Acute**

Harmful to the lung if inhaled.
Causes moderate eye injury.

Delayed

No information on significant adverse effects.

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively

5. FIRE FIGHTING PROCEDURES**5.1 Extinguisher Media****Suitable Extinguisher Media**

Dry chemical, water spray, foam or carbon dioxide.

Unsuitable Extinguisher Media

None known.

5.2 Specific Hazards Arising from the Chemical (isopropanol)

None known.

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Thermal decomposition products

Carbon oxides, nitrogen oxides.

5.3 Advice to Firefighters**Protective Equipment and precautions for firefighters**

Fire fighter should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling combustion products. See Section 8 (Exposure Controls / Personal Protection)

Fire & Explosive hazard

Formulated product is not highly flammable and not explosive.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves and shoes plus socks.

6.2 Environmental Precautions

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash-waters

6.3 Methods and Materials for Containment and Cleaning Up

Ventilate area. Wear appropriate personal protective equipment. Recover product and place into appropriate container for disposal. Do not flush to sewer.

6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

US Regulations may require reporting spills of hazardous materials: See Section 15: Regulatory Information for details on reportable quantities, if any.

7. HANDLING AND STORAGE**7.1 Precautions for Safe handling**

Ventilate. Avoid breathe mist or vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink or smoke while working with product. Obey reasonable safety precautions and practice good housekeeping.

7.2 Conditions for Safe Storage, Including and Incompatibilities

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Protect against physical damage. Close containers of unused material. Store in a dry, cool, ventilated place.

Incompatibilities

None Known

7.3 Specific End Use

Pesticide, Plant Growth Regulator.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control Parameters****Component Exposure Limits**

None established

Derived No Effect Levels (DNELs)

No DNELs

Predicted No Effect Concentrations (PNECs)

No PNECs

8.2 Exposure Controls**Appropriate Engineering Controls**

Provide general ventilation. Where adequate general ventilation is unavailable use process enclosure, local exhaust ventilation, or other engineering controls to control dust.

SKIN PROTECTION:

Avoid contact with skin and clothing. Wear long-sleeved shirt and long pants, waterproof gloves and shoes plus socks.

EYE PROTECTION:

Avoid contact with eyes. Wear Goggles, safety glasses with side shields or full-face shield.

RESPIRATORY PROTECTION:

Avoid breathing vapor or spray mist. Use dust filtering respirator (MSHA/NIOSH approved number prefix TC-21C) or a NIOSH approved respirator with any N, P, R or HE filter).

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on Basic Physical and Chemical Properties**

Appearance/Color:	White powder	Odor:	No discernible odor
Odor Threshold:	Not determined	pH:	7.7

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Melting point/ Freezing point:	Not applicable	Boiling Point:	Not applicable
Flashpoint:	Not determined	Evaporation Rate:	Not applicable
Flammability:	Not highly flammable	Upper/Lower flammability or explosive limits	Not explosive
Vapor Pressure:	Not determined	Vapor Density:	Not determined
Relative/Bulk Density:	0.77 g/mL	Solubility:	Not determined
Octanol/H ₂ O Partition Coefficient:	Not determined	Auto-ignition temp:	None below 400 °C
Decomposition Temp:	Not determined	Viscosity:	Not applicable
Particle size distribution:	99% (w/w) below 150 µm	Oxidizing properties:	Not oxidizing
Wettability:	24 sec	Wet sieving:	0.002% (w/w) retained on 75 µm sieve
Persistent foaming:	0 mL of foam after 1 min	Dilution stability:	Residue (5 min) = 0.13% Residue (18 hrs) = 0.26%

10. CHEMICAL STABILITY AND REACTIVITY

10.1 Reactivity

Material does not pose a significant reactivity hazard.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Spontaneous reaction: Not possible.

10.3 Possibility of Hazardous Reactions

Does not undergo hazardous polymerization

10.4 Conditions to Avoid

None known.

10.5 Incompatible Materials

None known.

10.6 Hazardous Decomposition Products

Carbon oxides and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

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Likely Routes of Exposure

Inhalation: Yes
Eye Contact: Yes
Skin Contact: Yes
Ingestion: Not likely

Product ToxicologyAcute Effects

Oral Toxicity: LD₅₀ > 5,000 mg/kg bw (rat) [Limit test]
Dermal Toxicity: LD₅₀ > 2,000 mg/kg bw (rat) [Limit test]
Inhalation Toxicity: LC₅₀ > 6.2 mg/L air (4-hrs, rat)
Corrosiveness: Not corrosive.
Dermal Irritation: Mild dermal irritation
Ocular Irritation: Mild eye irritation, all symptoms cleared within 7 days
Dermal Sensitization: Not a sensitizer (guinea pig)

Mutagenicity Information: Components of this product are not listed as mutagens. TGAI negative in chromosomal aberration, sister chromatid exchange in CHO. TGAI did NOT induce Unscheduled DNA synthesis (UDS) in Rat hepatocytes in vivo (2000 mg/kg; limit dose). TGAI negative in E-coli reverse mutation AMES test, 10,000 mcg/dish.

Carcinogenicity Information: One component of this product is listed as carcinogenic: Kaolin - CAS N° 1332-58-7: ACGIH: A4 - Not Classifiable as a Human Carcinogen

(Components of kaolin:

Quartz - Crystalline Silica - CAS N° 14808-60-7: ACGIH: A2 - Suspected Human Carcinogen; IARC: Group 1 - Carcinogenic to humans

Titanium dioxide - CAS N° 13463-67-7: ACGIH: A4 - Not Classifiable as a Human Carcinogen; IARC: Group 2B - Possibly carcinogenic to humans)

Developmental / Reproductive Toxicity: This material is not a teratogenic compound.

Aspiration Hazard: Not Applicable
Repeat Dose Studies: Not performed

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity**

This product has not been tested for ecotoxicological effects. Test results for the Technical Grade Active Ingredient [TGAI] are given below.

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Fish: LC₅₀ >150 mg a.i./L (96-H, rainbow trout) [TGAI Limit test]
Bird: LC₅₀ > 2,250 mg a.i./kg bw (Acute Oral - Bobwhite Quail) [TGAI limit test]
Bird: LC₅₀ > 6,018 mg a.i./kg bw (Feeding - Bobwhite Quail) [TGAI]
Invertebrates: EC₅₀ > 488 mg a.i./L (48-H) (Daphnia) [TGAI]
Bees: LC₅₀ > 25 g/bee [Limit dose]
Algae: Not tested, naturally occurring plant growth regulator
Earthworm: LC₅₀ > 1,111 mg/kg dry soil (14-d)

12.2 Persistence and Degradability

Active ingredient is a naturally occurring plant growth regulator that has been shown in publications to be present in all plants and to degrade naturally in the environment. Active ingredient readily degraded.

12.3 Bioaccumulation potential

Partition coefficient of active ingredient n-octanol/water: In pH 2.2 buffer at 22 °C (98%); log P_{ow} = 0.72

Bio-concentration Factor (BCF): Given that the log P_{ow} for the active ingredient is much less than 3, there is no potential for bio-concentration in fatty tissues and no potential for aquatic bio-magnification.

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB assessment

Assessments not performed

12.6 Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS**13.1 Waste Disposal Methods**

Dispose of product in accordance with federal, state, provincial, and local regulations. Prevent contamination of environment by wastes.

US EPA Waste Number & Descriptions:

There is no applicable EPA waste number. This product, if discarded, is not expected to be a characteristic or listed hazardous waste.

14. TRANSPORTATION INFORMATION

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DOT STATUS: Not Regulated
UN PROPER SHIPPING NAME: N/A
REMARKS: N/A

IATA/ICAO STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

IMO STATUS: Not Regulated
PROPER SHIPPING NAME: N/A
REMARKS: N/A

15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations / Specific Legislation**

TSCA STATUS: N/L

CERCLA STATUS: Not regulated as hazardous

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No

RCRA STATUS: Not regulated as hazardous

State Right-To-Know: Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

OSHA HAZARD COMMUNICATION STANDARD: Not defined by the OSHA Hazard Communication Standard, 29 CFR

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049-6

EPA Pesticide Label signal word: CAUTION

Product must have EPA Approved Pesticide Label attached to or accompanying all containers.

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions and limitations for its use.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS (& DOMESTIC ANIMALS)****CAUTION**

Harmful if absorbed through skin or inhaled. Avoid breathing vapor or spray mist, and avoid contact with skin. Causes moderate eye injury. Avoid contact with skin, eyes and clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation. Do not apply this product through any type of irrigation system.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Keep containers tightly closed when not in use.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer or contact Ag Container Recycling Council at 202-861-3144 or www.acrecycle.org. If recycling is not available puncture and dispose of the container in a sanitary landfill, or by other procedures approved by state and local authorities.

16. OTHER INFORMATION**NFPA Hazard Ratings**

Health: 1
Flammability: 0
Instability: 0

HMIS Hazard Ratings

Health: 0
Flammability: 0
Instability: 0

0 = minimal
1 = slight
2 = moderate

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3 = serious
4 = ExtremeREASON FOR ISSUE: New GHS Formatting.
APPROVAL DATE: 11/30/15
SUPERSEDES DATE: --/--/--LEGEND: N/A = Not Applicable N/D = Not Determined
 N/L = Not Listed L = Listed
 C = Ceiling S = Short-term
 (R) = Registered Trademark of Valent BioSciences
 (TM) = Registered Trademark of Valent BioSciences

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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.