

**Promalin® Plant Growth Regulator Solution**

SDS# VBC-0369 Revision 1

ISSUED 06/14/18

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

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**1.1 Product Identifier****MATERIAL NAME:** Promalin® Plant Growth Regulator Solution**Synonyms:** None**PCP Reg No.:** 16636 & 27137**Code Number:** 16345, 58086**List Number:** 02571, 02572**Substance Registration Number(s)[REACH]:** N/A**1.2 Relevant Identified Uses and Uses Advised Against****Identified Uses:** 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 LLC
870 Technology Way
Libertyville, Illinois 60048, USA**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**Acute Aquatic Toxicity – Category 3 (*Lemna gibba*).**2.2 Labeling Elements****Symbol(s)**

None

Signal Word

WARNING

Hazard Statement(s)May be harmful to aquatic life (*Lemna gibba*)

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2.3 Precautionary Statement:**Prevention**

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

Avoid release to the environment

Response

Do not flush to sewer.

Disposal

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

Storage

Stored in a cool, dry place.

2.4 Other Hazards

None identified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component Name	Percent
1214-39-7	6-benzyladenine	1.8
468-44-0 and 510-75-8	Gibberellins A4 and A7	1.8
77-92-9	Citric acid (anhydrous)	0.5
Trade Secret	Other ingredients	95.9

4. FIRST AID MEASURES**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. 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 occurs or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

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INGESTION: Remove from source of exposure. Move person to fresh air. Do NOT induce vomiting. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

4.2 Most important Symptoms and Effects, both Acute and Delayed**Acute**

May cause mild eye irritation.
May cause mild skin irritation.

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. Use appropriate medium for the underlying cause of the fire.

Unsuitable Extinguisher Media

None known

5.2 Specific Hazards Arising from the Chemical**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

Not expected to be flammable. Does not process explosive properties.

Flash point: 226 °F (108 °C)

Auto-ignition temperature: 741 °F (394 °C)

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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, or to areas where surface water is present or to intertidal areas below the mean high water mark. Dispose of excess product and wash-waters according to local regulations. Do not contaminate water when disposing equipment wash-waters or rinsate. Avoid release to the environment and do not flush to sewer.

6.3 Methods and Materials for Containment and Cleaning Up

Wear appropriate personal protective equipment. Soak up product with inert absorbent material (earth, sand, vermiculite). Sweep up and shovel into suitable containers 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.

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

Avoid contact with eyes and 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 Incompatibilities

Store in a cool, dry place.

Incompatibilities

None Known

7.3 Specific End Use(s)

Plant Growth Regulator

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SDS# VBC-0369 Revision 1

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Component Exposure Limits

None

Derived No Effect Levels (DNELs)

No DNELs available

Predicted No Effect Concentrations (PNECs)

No PNECs available

8.2 Exposure Controls

Appropriate Engineering Controls

Provide general ventilation.

SKIN PROTECTION:

Wear impervious protective clothing, including boots and gloves. Wear gloves made of impervious materials. Wash thoroughly with soap and water after handling.

EYE PROTECTION:

Wear goggles, safety glasses with side shields or full-face shield when splashing or spraying of materials is likely.

RESPIRATORY PROTECTION:

Where respiratory protection is warranted, use dust/mist 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

Appearance:	Clear, slightly viscous liquid	Odor:	Odorless
pH:	3.88 (1% dilution)	Boiling Point:	Not Determined
Melting Point:	Not Applicable	Solubility (H ₂ O):	Not Determined
Specific Gravity:	Not Determined	Relative Density:	1.05
Auto Ignition Temperature:	741 °F (394 °C)	Oxidizing properties:	Does not possess oxidizing properties
Flammability:	N/A (liquid)	Flash point:	226 °F (108 °C)
Vapor Density:	Not Determined	Explosive properties:	Does not possess explosive properties
Acidity:	0.593% (as H ₂ SO ₄)	Persistent foaming:	No foam at 0 & 10 min.
Kinematic Viscosity:	68.4 cS (at 20 °C) 22.1 cS (at 40 °C)	Surface tension:	68.2 mN/m at 21 °C (1 g/L)

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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 of the Final Formulation:****LIKELY ROUTES OF EXPOSURE**

Eye Contact: Yes

Skin Contact: Yes

Inhalation: Yes

Ingestion: No

ACUTE EFFECTS Product Toxicology StudiesORAL TOXICITY: LD₅₀ >5,050 mg/kg bw (rat)DERMAL TOXICITY: LD₅₀ > 5,050 mg/kg bw (rabbit)INHALATION TOXICITY: LC₅₀ > 6.0 mg/L (rat, 4-hrs)

CORROSIVENESS: Not corrosive

DERMAL IRRITATION: Mildly irritating (PII: 0.2)

OCULAR IRRITATION: Mildly irritating (rabbit)

DERMAL SENSITIZATION: Not a sensitizer (Guinea pig, Maximization test)

MUTAGENICITY INFORMATION: Components of this product are not listed as mutagens.

CARCINOGENICITY INFORMATION: Components of this product are not listed as carcinogenic by NTP, IARC or OSHA.

DEVELOPMENTAL/REPRODUCTIVE TOXICITY: Components of this product are not listed as pathogens.

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SPECIAL TARGET ORGAN EFFECTS: Not applicable
ASPIRATION HAZARD: Not Applicable
REPEAT DOSE STUDIES: Not Applicable

12. ECOLOGICAL INFORMATION**12.1 Ecotoxicity (Data for the Final formulation)**Fish: LC₅₀ (96-hr) >1,000 mg/L (Zebra Fish)Bird: LC₅₀ >2,000 mg/kg bw (Japanese Quail)Bees (Insects): LD₅₀ (48-hr) >100 mg/bee (contact, Honey bee)LD₅₀ (48-hr) >100 mg/bee (oral, Honey bee)Algae: E_bC₅₀ (96-hr) 123 mg/L (area under growth curve, *Pseudokirchneriella subcapitata*)E_rC₅₀ (96-hr) 123 mg/L (growth rate, *Pseudokirchneriella subcapitata*)E_yC₅₀ (96-hr) 123 mg/L (yield, *Pseudokirchneriella subcapitata*)Aquatic Invertebrates: EC₅₀ (48-hr) >512 mg/L (*Daphnia magna*)Aquatic Plants: EC₅₀ (7-d) 42 mg/L (frond yield, *Lemna gibba*)EC₅₀ (7-d) 140 mg/L (frond number growth rate, *Lemna gibba*)EC₅₀ (7-d) 73 mg/L (biomass yield, *Lemna gibba*)EC₅₀ (7-d) 198 mg/L (biomass growth rate, *Lemna gibba*)**12.2 Persistence and Degradability**

No data available

12.3 Bioaccumulation potential

No data available

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.

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14. TRANSPORTATION INFORMATION

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

IMDG 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: Exempt

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: Not Listed

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 PMRA Pesticide Regulations

PCP Number: 19455

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

This chemical is a pesticide product registered by the PMRA 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 – EYE IRRITANT

READ LABEL AND ATTACHED BROCHURE BEFORE USING

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WARNING

Causes eye irritation. Do not get in eyes. Harmful if swallowed.

ENVIRONMENTAL HAZARD

Do not apply directly to aquatic habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, or wetlands) and estuarine/marine habitats. Do not contaminate the above aquatic habitats when cleaning and rinsing spray equipment or containers.

TOXICOLOGICAL INFORMATION:

Treat Symptomatically

DISPOSAL

Do not reuse this container for any purpose. This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site: triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill and for clean-up of spills.

16. OTHER INFORMATION**NFPA Hazard Ratings**

Health: ND
Flammability: ND
Instability: ND

HMIS Hazard Ratings

Health: 0
Flammability: 0
Instability: 0

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

REASON FOR ISSUE: General Update

APPROVAL DATE: 06/14/18

SUPERSEDES DATE: 04/13/18

LEGEND: N/A = Not Applicable

N/L = Not Listed

C = Ceiling

(R) = Registered Trademark of Valent BioSciences LLC

(TM) = Registered Trademark of Valent BioSciences LLC

N/D = Not Determined

L = Listed

S = Short-term

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SAFETY DATA SHEET

10 of 10

Promalin® Plant Growth Regulator Solution

SDS# VBC-0369 Revision 1

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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE 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. 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 a pesticide product in any manner inconsistent with its labeling.



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