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ProTone SG Plant Growth Regulator Soluble Granule

SDS# VBC-0006 Revision 7 07/23/2024

[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: ProTone SG Plant Growth Regulator Soluble Granule

Synonyms: VBC-30051, ProTone FW Plant Growth Regulator, InGrain, InGrain 20SG, InGrain 200SG.

EPA Reg No.: 73049-461 Code Number: 10154

List Number: 05710

Chemical Family: Plant Growth Regulator

Substance Registration Number(s)[REACH]:

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 FIFRA pesticide labeling.

1.3 Details of the supplier of the Safety Data Sheet

Supplied By: Valent BioSciences LLC 1910 Innovation Way, Suite 100 Libertyville, Illinois 60048

1.4 EMERGENCY TELEPHONE NUMBERS

Emergency Health or Spill:

VBC Product Information: (800)323-9597 Health Emergency (24 hours): 1-877-315-9819 US Transportation (24 hr): CHEMTREC: 800-424-9300 International Transportation (24 hr): 703-741-5970

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Hazardous to the aquatic environment, Acute Category 1

2.2 Labeling Elements Symbol(s)





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Signal Word

WARNING

Hazard Statement(s)

Harmful to aquatic life (lemna)

Precautionary Statement:

Prevention

Wash thoroughly after handling Avoid release to the environment

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

IF ON SKIN: Wash with plenty of water.

If skin irritation or rash occurs: Get medical advice/ attention.

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	Percent	g/kg
21293-29-8	S-Abscisic acid	20%	200

CAS #	Component Other-Ingredient Name	Percent	g/kg
Trade Secret	Other ingredients	80%	Balance

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.



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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.

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

None

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

None known

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



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Controls / Personal Protection)

Fire & Explosive hazard

Active ingredient is flammable in presence of open flames and sparks. Formulated product is not expected to be flammable.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use in a well-ventilated area. For respiratory protection wear a dust mask. Wear eye protection appropriate to handling activities. Wear impervious gloves. See personal protection as recommended in Section 8.

6.2 Environmental Precautions

Keep out of drains, sewers, ditches and waterways. Avoid runoff to waterways and sewers.

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

Use in a well-ventilated area. For respiratory protection wear a dust mask. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink, chew gum 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)



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Plant Growth Regulator



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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. Where adequate general ventilation is unavailable use local exhaust ventilation, or other engineering controls.

SKIN PROTECTION:

Wear protective clothing, including boots and gloves. Wear a dust mask. Wear gloves made of impervious material. 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

9.1 Information on Basic Physical and Chemical Properties

Appearance/Color: White granules		Odor:	Sweet
pH: 3.17 (1% dilution in water)		Boiling Point:	Not applicable (solid)
Melting Point:	154 – 162 °C (TGAI) with	Solubility (H ₂ O):	3.8 g/L below pH 7
	decomposition		>250 g/L above pH 7
Octanol/H ₂ O Coeff: Log P _{ow} = 0.94 (ioniz		Density:	0.53 g/cm ³ @ °C
	Log Pow = 1.8 (non-ionized)		
Auto Ignition:	No self-ignition below 400°C	Evaporation Rate:	Not applicable (solid)
	[TGAI]		
Flash Point::	Not Determined	Decomposition Temp.:	162 °C (TGAI)
		LFL:	Not applicable
Vapor Density:	Not applicable (slid)	UFL:	Not applicable
VOC:	0% by weight	Vapor Pressure:	Not applicable (solid)
Kinematic Viscosity:	Not applicable (solid)	Flammability Class:	Not highly flammable

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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

Likely Routes of Exposure

Inhalation: Dilute spray during application Eye Contact: Dilute spray during application Skin Contact: Dilute spray during application Ingestion: Dilute spray during application

Product (or TGAI where noted) Toxicology

Acute Effects	
Oral Toxicity:	LD ₅₀ > 5,000 mg/kg (rat)
Dermal Toxicity:	LD ₅₀ > 5,000 mg/kg (rabbit)
Inhalation Toxicity:	$LC_{50} > 5.1 \text{ mg/L air (nose-only)}$
Corrosiveness:	Not corrosive.
Dermal Irritation:	Slightly-irritating, (Primary Dermal Irr. Index = 1, category IV)
Ocular Irritation:	Mildly-irritating, (MMTS. Index = 14.3, category IV)
Dermal Sensitization:	Not a sensitizer (guinea pig)
Mutagenicity Information:	Components of this product are not listed as mutagens. Negative in
	chromosomal aberration in CHO [TGAI]. Negative in E-coli reverse



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mutation AMES test [TGAI]

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

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

Special Target Organ: None identified

Aspiration Hazard: Not Applicable

Repeat Dose Studies: Not Determined

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Test results for the Technical Grade Active Ingredient [TGAI] are given below. Do not allow into waterways or lakes.

Fish: $LC_{50} > 121 \text{ mg a.i./L (96-H, rainbow trout) [TGAI]}$ Bird: $LC_{50} > 2250 \text{ mg a.i./kg bw (Acute Oral - Bobwhite Quail) [TGAI]}$ Invertebrates (Daphnia): $EC_{50} > 116 \text{ mg a.i./L (48-H) (Daphnia) [TGAI]}$ Aquatic Plants: $EC_{50} > 0.040 \text{ mg a.i./L (Lemna) [TGAI]}$ $EC_{50} > 95.3 \text{ mg a.i./L (Green Algae) [TGAI]}$

12.2 Persistence and Degradability

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 10-Hours (photolysis), biodegradable.

Hydrolysis:Not hydrolytically active [TGAI]Photolysis: DT_{50} 34 hours (air) [TGAI] DT_{50} 0.1 days at pH 4, 2.5 days at pH 7 or 9 (aqueous) [TGAI]

12.3 Bioaccumulation potential

Partition coefficient n-octanol/water

Non-ionized form: Log Pow = 1.8 [TGAI]

ionized form: Log Pow = 0.94 [TGAI]

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



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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

DOT STATUS: Not regulated for domestic ground transport by US DOT UN PROPER SHIPPING NAME: N/A RERMARKS: N/A

IATA/ICA0STATUS: RegulatedPROPER SHIPPING NAME: UN3077 Environmentally Hazardous Substance, Solid, N.O.S.
(S-Abscisic acid), 9, III, Marine Pollutant
REMARKS: Single or inner packaging less 5 kg net (solids) excepted from
Dangerous Goods regulations – see IATA Special Provision A197IMDGSTATUS: Regulated
PROPER SHIPPING NAME: UN3077 Environmentally Hazardous Substance, Solid, N.O.S.
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Dangerous Goods regulations – see IMDG 2.10.2.7

15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations / Specific Legislation TSCA STATUS: Exempt CERCLA STATUS: N/D

SARA STATUS: Acute: No Chronic: No Fire: No CDT: No RCRA STATUS: N/D State Right-To-Know: Not Listed Consult applicable national, state provincial or local laws to de

Consult applicable national, state provincial or local laws to determine regulations, laws or ordinances which may be applicable.

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

15.2 EPA Pesticide Regulations

EPA Registration Number: 73049-461 EPA Pesticide Label signal word: CAUTION

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

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

Caution: Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

For terrestrial uses: 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 when cleaning or disposing of equipment washwaters or rinsate.

Do not use treated seed for food, feed, or oil purposes. Exposed treated seed may be hazardous to birds and other wildlife. Treat only those seeds needed for immediate use and planting. Do not store excess treated seed beyond planting time. Dispose of all excess treated seed and seed packaging by burial away from bodies of water.

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 Tribe agency responsible for pesticide regulation.

Use only as directed. Read the label thoroughly and make sure it is understood before making applications. Keep out of reach of children.



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STORAGE AND DISPOSAL

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

<u>Pesticide Storage:</u> Keep container tightly closed when not in use. Store product in a cool and dry place. Avoid extended storage conditions at temperatures above 25°C (77°F). Avoid exposure of product to light.

<u>Pesticide Disposal</u>: To avoid waste, use all material in this container by application according to label directions. If waste cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Nonrefillable 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. 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. Offer for recycling, if available or 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 Health: Flammability: Instability:	Ratings 0 0 0	HMIS Hazard F Health: Flammability: Instability:	0 = minimal $1 = slight$ $2 = moderate$ $3 = serious$ $4 = Extreme$				
REASON FOR ISSUE: General Updates APPROVAL DATE: 07/23/2024 SUPERSEDES DATE: 02/24/2023							
LEGEND: N/A = Not Applicable N/L = Not Listed C = Ceiling (R) = Registered Trademark of (TM) = Registered Trademark o			of Vale				

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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 product in any manner inconsistent with its labeling.



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