MaxCel® Plant Growth Regulator MSDS# BIO-0303 Rev. 7

ISSUED 6/24/14

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: MaxCel® Plant Growth Regulator

EPA Reg. Number: 73049-407 PMRA PCP No.: 28851

LIST Number: 11815

MANUFACTURER: Valent BioSciences Corporation

870 Technology Way, Suite 100 Libertyville, Illinois 60048

EMERGENCY TELEPHONE NUMBERS Emergency Health or Spill:

> Outside the United States: 651-632-6184 Within the United States: 877-315-9819

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME: N-(phenylmethyl)-1H-purine 6-amine, also known as

6-Benzyladenine (6-BA)

CONCENTRATION: 1.9%

CAS NUMBER: 1214-39-7

OSHA-PEL 8HR TWA: N/L

STEL: N/L

CEILING: N/L

ACGIH-TLV 8HR TWA: N/L

STEL: N/L

CEILING: N/L

8HR TWA: N/A OTHER LIMITS STEL: N/A

CEILING: N/A

INGREDIENT NAME: Inert Ingredients - identity withheld as a trade secret

CONCENTRATION: 98.1%

CAS NUMBER: N/A

OSHA-PEL 8HR TWA: N/L

STEL: N/L

CEILING: N/L

ACGIH-TLV 8HR TWA: N/L

STEL: N/L

CEILING: N/L

8HR TWA: Major component - vapor and aerosol = 50ppm, OTHER

LIMITS aerosol only = 10 mg/m3. (AIHA WEEL)

STEL: N/A

CEILING: N/A

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3. HAZARDS INFORMATION

EMERGENCY OVERVIEW: Product is of low hazard by ingestion, skin contact,

or inhalation. May cause mild to moderate eye

irritation.

ROUTE(S) OF ENTRY: Skin: Possible, but unlikely

Inhalation: Possible, but unlikely

Ingestion: No

SKIN CONTACT: Non-irritant

EYE CONTACT: Irritant

SKIN SENSITIZATION: Non-sensitizer

TARGET ORGANS: N/D

CARCINOGENICITY RATING: NTP: N/L IARC: N/L OSHA: N/L ACGIH: N/L

None

SIGNS AND SYMPTOMS: N/D. Ingesting large amounts of the main solvent component can affect the body's chemistry by increasing the amount of acid, resulting in metabolic problems.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Kidney disorders.

4. FIRST AID MEASURES

EYES: Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

SKIN: Remove from source of exposure. 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. 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.

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5. FIRE FIGHTING PROCEDURES

FLASH POINT: 106 °C (223 °F)

FLASH POINT METHOD: Closed cup

LOWER EXPLOSIVE LIMIT(%): 2.6% (solvent)
UPPER EXPLOSIVE LIMIT(%): 12.6% (solvent)
AUTOIGNITION TEMPERATURE: 377° C (710° F)

FIRE & EXPLOSION HAZARDS: Non-flammable and no explosive properties.

EXTINGUISHING MEDIA: Use appropriate medium for underlying cause of fire.

FIRE FIGHTING INSTRUCTIONS: Wear protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

SPILL OR RELEASE PROCEDURES: Recover product and place in appropriate container for disposal. Ventilate and wash area.

7. HANDLING AND STORAGE

HANDLING: The usual precautions for handling chemicals should be observed.

STORAGE: Store product in tightly closed containers in a cool and dry place when not in use.

SPECIAL PRECAUTIONS: N/D

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust.

RESPIRATORY PROTECTION: Not usually required. If necessary, use a dust/mist respirator meeting NIOSH standards of at least N-95, R-95 or P-95.

SKIN PROTECTION: Butyl or nitrile rubber gloves, clothing to minimize skin contact.

EYE PROTECTION: Safety glasses or goggles.

OTHER PROTECTION: Wash thoroughly with soap and water after handling.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Clear liquid

ODOR: No appreciable odor

BOILING POINT: Approx. 188°C (370°F)

MELTING/FREEZING POINT: N/D
VAPOR PRESSURE (mm Hg): N/D
VAPOR DENSITY (Air=1): > 1
EVAPORATION RATE (BuAc=1): < 1

BULK DENSITY: 1.046 g/ml

SPECIFIC GRAVITY: N/D

SOLUBILITY: Miscible in water.

pH: 2.8 (5% solution)

VISCOSITY: N/D

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable. No oxidizing or reducing properties.

INCOMPATIBILITIES: Oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: N/D.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

ORAL LD50: LD50 (rat) > 5,000 mg/kg

DERMAL LD50: LD50 (rat) > 5,000 mg/kg

INHALATION LC50: LC50 (rat) > 4.99 mg/L (4 hour exposure) at the highest obtainable inhalation exposure chamber concentration.

CORROSIVENESS: N/D.

DERMAL IRRITATION: Produced slight redness at site of application in several animals. Not classified as a skin irritant.

OCULAR IRRITATION: Transient conjunctival irritation was observed in test animals after application. Classified as a mild to moderate irritant.

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11. TOXICOLOGICAL INFORMATION, continued

DERMAL SENSITIZATION: Product did not produce evidence of skin sensitization in test animals. Classified as a non-sensitizer.

SPECIAL TARGET ORGAN EFFECTS: N/D.

CARCINOGENICITY INFORMATION: N/D. None of the components are classified as carcinogens.

12. ECOLOGICAL INFORMATION

No information available on the formulated product. The following data are applicable to the active ingredient, 6-benzyladenine, technical grade:

Ecotoxicity

Fish: Acute toxicity, 96 hr-LC50 (Brachydanio rerio): 42 mg/l Daphnia: Acute toxicity, 48 hr-LC50 (Daphnia magna): 28 mg/l

Algae: Acute toxicity, 72 hr-LC50 (Selenastrum capricornutum): 45 mg/l

Bees: Acute oral, 48 hr-LD50 (Apis mellifera): > 25 μ g/bee Acute contact, 48 hr-LD50 (Apis mellifera): > 25 μ g/bee

Fate

Degradation (biotic): Readily biodegradable Degradation (abiotic): Hydrolytically stable

Bioaccumulation: log Pow = 2.16

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Dispose of product in accordance with federal, state and local regulations. Follow instructions on the label.

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14. TRANSPORTATION INFORMATION

DOT STATUS: Not Regulated

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

UN NUMBER: N/A

PACKING GROUP: N/A

REPORTABLE QUANTITY: N/A

IATA/ICAO STATUS: Not Regulated

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

UN NUMBER: N/A

PACKING GROUP: N/A

REPORTABLE QUANTITY: N/A

IMO STATUS: Not Regulated

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

UN NUMBER: N/A

PACKING GROUP: N/A

REPORTABLE OUANTITY: N/A

FLASH POINT: N/A

15. REGULATORY INFORMATION

TSCA STATUS: EXEMPT

CERCLA STATUS: N/D

SARA STATUS: N/D

RCRA STATUS: N/D

PROP 65 (CA): N/D

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16. OTHER INFORMATION

REASON FOR ISSUE: General update.

APPROVAL DATE: 06/24/14 SUPERSEDES DATE 12/17/12

LEGEND: N/A = Not Applicable

N/D = Not Determined

N/L = Not Listed

L = Listed C = Ceiling

S = Short-term

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