Provide® 10 SG MSDS# BIO-0343 Rev. 1

ISSUED 02/23/05

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME: Provide® 10 SG

EPA REG No.: 73049-409
Code Number: Not Available
List Number: Not Available

SYNONYMS: Regulex® 10 SG VBC-30011

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: Gibberellin A4/A7

CONCENTRATION: 10%

CAS NUMBER: 468-44-0 (GA4) / 510-75-8 (GA7)

OSHA-PEL 8HR TWA: N/L

STEL: N/L

CEILING: N/L

ACGIH-TLV 8HR TWA: N/L

STEL: N/L

CEILING: N/L

OTHER 8HR TWA: N/A

LIMITS STEL: N/A

CEILING: N/A

INGREDIENT NAME: Other Ingredients - Trade Secret Information

CONCENTRATION: 90%

CAS NUMBERS: NA

OSHA-PEL 8HR TWA: N/L

STEL: N/L

CEILING: N/L

ACGIH-TLV 8HR TWA: N/L

STEL: N/L

CEILING: N/L

OTHER 8HR TWA: N/A

LIMITS STEL: N/A

CEILING: N/A

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3. HAZARDS INFORMATION

EMERGENCY OVERVIEW: This material is non-toxic by ingestion, skin contact, or inhalation. Direct contact with this material may cause slight to mild eye irritation and skin sensitization.

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

Inhalation: Possible, but unlikely Ingestion: Possible, but unlikely

SKIN CONTACT: Non-irritant

SKIN SENSITIZATION: Mild Sensitizer (based on the technical product)

EYE CONTACT: Slight irritant

TARGET ORGANS: N/D

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

None

SIGNS AND SYMPTOMS: Direct contact with the product could cause mechanical irritation which may result in eye irritation and skin redness.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None that are known.

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: N/A

FLASH POINT METHOD: N/A

LOWER EXPLOSIVE LIMIT(%): N/A

UPPER EXPLOSIVE LIMIT(%): N/A

AUTOIGNITION TEMPERATURE: N/D

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, place into appropriate container for disposal. Avoid dust. Ventilate and wash spill area.

7. HANDLING AND STORAGE

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

STORAGE: Avoid excessive temperatures and direct sunlight. Store in dry area, keep material dry and container tightly closed.

SPECIAL PRECAUTIONS: Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust.

RESPIRATORY PROTECTION: Not usually required. If necessary, use a MSHA/NIOSH approved (or equivalent) respirator with high efficiency filter.

SKIN PROTECTION: Impervious gloves, clothing to minimize skin contact.

EYE PROTECTION: Safety glasses or goggles.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: White granular solid (extruded tube shape)

ODOR: Faint sweet odor

BOILING POINT: N/A

MELTING/FREEZING POINT: N/D

VAPOR PRESSURE (mm Hg): N/A
VAPOR DENSITY (Air=1): N/A

EVAPORATION RATE: N/A

BULK DENSITY: $0.55 \pm 0.05 \text{ g/ml}$

SPECIFIC GRAVITY: N/D

SOLUBILITY: Soluble in water.

pH: 3.60 (1% aqueous solution)

VISCOSITY: N/A

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions of use.

INCOMPATIBILITIES: None that are known.

HAZARDOUS DECOMPOSITION PRODUCTS: N/D.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

ORAL LD50 (rat): N/D (> 5,000 mg/kg for GA4A7 Technical Powder)

DERMAL LD50 (rabbit): N/D (> 2,000 mg/kg for GA4A7 Technical Powder)

INHALATION LC50 (rat): N/D (> 6.2 mg/l (4 hr whole body exposure) for

GA4A7 Technical Powder)

CORROSIVENESS: N/D. Not expected to have corrosive properties.

DERMAL IRRITATION: N/D. In tests with GA4A7 technical powder, slight to well-defined redness occurred at site of application in several animals. GA4A7 technical powder is not classified as a skin irritant.

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11. TOXICOLOGICAL INFORMATION, continued

- OCULAR IRRITATION: N/D. In tests with GA4A7 technical powder, moderate reversible irritation was observed in test animals. Direct contact with the formulated product may cause irritation, however, solutions are not expected to be irritating. The formulated product would be expected to be classified as a slight to mild irritant.
- DERMAL SENSITIZATION: N/D. In maximization tests with guinea pigs, GA4A7 technical powder produced a weak response. The formulated product is not expected to be classified as a sensitizer.
- SPECIAL TARGET ORGAN EFFECTS: N/D. In teratogenicity studies in rabbits, no maternal or fetal toxicity, or other adverse effects to the fetus were noted following repeated dosages (up to 1000 mg/kg/day) of GA4/A7. The NOEL (no-observable-effect-level) for maternal toxicity and embryo/fetal toxicity was 300 mg/kg.
- CARCINOGENICITY INFORMATION: N/D. None of the components are classified as carcinogens.
- 12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: N/D

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Dispose of product in accordance with federal, state, and local regulations.

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

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14. TRANSPORTATION INFORMATION, continued

OMI STATUS: Not Regulated

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

UN NUMBER: N/A

PACKING GROUP: N/A REPORTABLE QUANTITY: N/A

FLASH POINT: N/A

15. REGULATORY INFORMATION

TSCA STATUS: Exempt RCRA STATUS: N/D

CERCLA STATUS: N/D PROP 65 (CA): N/D

SARA STATUS: N/D

16. OTHER INFORMATION

REASON FOR ISSUE: To add EPA Registration number

APPROVAL DATE 02/23/05 SUPERSEDES DATE 11/12/04

LEGEND: N/A = Not Applicable

N/D = Not Determined

N/L = Not Listed

L = ListedC = Ceiling

S = Short-term

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