## MATERIAL SAFETY DATA SHEET

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ISSUED 08/22/02 \_\_\_\_\_ 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION \_\_\_\_\_ MATERIAL NAME: REGULEX 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: Gibberellins A4 and A7 CAS/RTECS NUMBERS: N/A / N/A OSHA-PEL 8HR TWA: N/L STEL: N/L CEILING: N/L ACGIH-TLV 8HR TWA: 50 ppm total vapor and aerosol for the main component STEL: N/L CEILING: N/L 8HR TWA: 10 mg/m3 for the main component OTHER LIMITS STEL: N/A CEILING: N/A 3. HAZARDS INFORMATION \_\_\_\_\_ EMERGENCY OVERVIEW: This material is of low order toxicity under normal conditions of handling and use. It may cause mild eye and skin irritation. Combustible liquid when exposed to heat or flame. ROUTE(S) OF ENTRY: Skin: No Inhalation: Yes Ingestion: No

INGESTION RATING: None

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SKIN ABSORPTION RATING: None

INHALATION RATING: N/D

CORROSIVENESS RATING: N/D

SKIN CONTACT RATING: N/D

SKIN SENSITIZATION RATING: N/D

EYE CONTACT RATING: N/D

TARGET ORGANS: Blood

CARCINOGENICITY RATING: NTP: N/L IARC: N/L OSHA: N/L ACGIH: N/L None

SIGNS AND SYMPTOMS: N/D. None expected. Stinging, tearing and blinking with transient redness following direct application to the eyes. Redness, swelling and vesicle formation from repeated application to the skin under occluded conditions.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: N/D. Data suggest sensitivity to main component. Pre-existing skin, eye or hematopoietic ailments.

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. No known antidote. 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. No known antidote. Provide symptomatic/supportive care as necessary.

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- INGESTION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. No known antidote. Provide symptomatic/supportive care as necessary.
- INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. No known antidote. Provide symptomatic/supportive care as necessary.
- 5. FIRE FIGHTING PROCEDURES

FLASH POINT: 210 F FLASH POINT METHOD: N/D LOWER EXPLOSIVE LIMIT(%): 2.6% UPPER EXPLOSIVE LIMIT(%): 12.6% AUTOIGNITION TEMPERATURE: 371 C

- FIRE & EXPLOSION HAZARDS: Combustible liquid when exposed to heat or flame.
- EXTINGUISHING MEDIA: Use appropriate medium for the underlying cause of the 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 an appropriate container for disposal. Ventilate and wash the spill

7. HANDLING AND STORAGE

area.

HANDLING: Avoid contact with skin and eyes.

STORAGE: Tight container, protect from frost.

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SPECIAL PRECAUTIONS: Wash hands and face after handling this compound.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION
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ENGINEERING CONTROLS: Use local exhaust.

RESPIRATORY PROTECTION: Air purifying respirator with a combination organic vapor/dust-mist cartridge.

SKIN PROTECTION: Butyl, natural or nitrile rubber.

EYE PROTECTION: Goggles or full-face respirator.

OTHER PROTECTION: Wear saranex tyvek coveralls if contact may occur.

9. PHYSICAL AND CHEMICAL PROPERTIES

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APPEARANCE/PHYSICAL STATE: Colorless liquid ODOR: N/D BOILING POINT: approximately 187 C MELTING/FREEZING POINT: approximately -59 C VAPOR PRESSURE (mm Hg): approximately 0.08 mm Hg at 20 C VAPOR DENSITY (Air=1): 2.62 EVAPORATION RATE: N/D BULK DENSITY: 1.03-1.05 g/mL at 20 C SPECIFIC GRAVITY: N/D SOLUBILITY: Miscible in water, acetone and chloroform. pH: N/D VISCOSITY: N/D

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Physically and chemically stable when stored at ambient temperatures.

INCOMPATIBILITIES: Oxidizers.

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HAZARDOUS DECOMPOSITION PRODUCTS: When heated to decomposition, emits toxic and irritating vapors.

HAZARDOUS POLYMERIZATION: N/D

11. TOXICOLOGICAL INFORMATION

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ORAL TOXICITY: LD50 > 10,000 mg/kg in rats.

DERMAL TOXICITY: LD50 > 4000 mg/kg in rats.

INHALATION TOXICITY: N/D

CORROSIVENESS: N/D

- DERMAL IRRITATION: N/D. Continued application of the main component to the skin of humans produced an irritation response.
- OCULAR IRRITATION: N/D. The main component produced mild eye irritation in rabbits. A single drop in human eye produced mild transient redness.
- DERMAL SENSITIZATION: N/D. The main component exhibited some potential to produce skin sensitization in studies in humans.
- SPECIAL TARGET ORGAN EFFECTS: N/D. Heinz body formation or erythrocytes destruction found in animals at repeated dosages of 500 mg/kg or more for the main component.

CARCINOGENICITY INFORMATION: N/D

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Unlikely to be hazardous to aquatic life.

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ISSUED 08/22/02 \_\_\_\_\_ 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/D HAZARD CLASS: N/D UN NUMBER: N/D PACKING GROUP: N/D REPORTABLE QUANTITY: N/D IATA/ICA0 STATUS: Not Regulated PROPER SHIPPING NAME: N/D HAZARD CLASS: N/D UN NUMBER: N/D PACKING GROUP: N/D REPORTABLE QUANTITY: N/D IMO STATUS: Not Regulated PROPER SHIPPING NAME: N/D HAZARD CLASS: N/D UN NUMBER: N/D PACKING GROUP: N/D REPORTABLE QUANTITY: N/D FLASH POINT: 210 F 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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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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