MSDS# BIO-0028 Rev. 2 Issued 07/23/04 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION MATERIAL NAME: ProGibb® 4.0% Activol® 4.0% EPA Registration No. 73049-15

MANUFACTURER: Valent BioSciences Corporation 870 Technology Way, Suite 100 Libertyville, Illinois 60048

List Number: 5016 * 96808

ProGibb® 4.0%

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: Gibberellic Acid CONCENTRATION: 4.00 % CAS/RTECS NUMBERS: 77-06-5 / LY8990000 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: 10 mg/m3 OTHER LIMITS STEL: N/A CEILING: N/A INGREDIENT NAME: Isopropanol CONCENTRATION: 96.00% CAS/RTECS NUMBERS: 67-63-0 / NT8050000 OSHA-PEL 8HR TWA: 400 ppm STEL: N/L CEILING: N/L ACGIH-TLV 8HR TWA: 200 ppm STEL: 400 ppm CEILING: N/L 8HR TWA: N/A OTHER LIMITS STEL: N/A CEILING: N/A

ProGibb® 4.0% MSDS# BIO-0028 Rev. 2 Issued 07/23/04 _____ 2. COMPOSITION/INFORMATION ON INGREDIENTS, continued _____ EEC (European Community): Symbol Designation: N/D Risk Phrases: N/D Safety Phrases: N/D 3. HAZARDS INFORMATION _____ EMERGENCY OVERVIEW: Flammable Liquid. This material is an eye and skin irritant. ROUTE(S) OF ENTRY: Skin: No Inhalation: Yes Ingestion: Possible, but not likely. SKIN CONTACT: Slight to mild skin irritant. SKIN SENSITIZATION: Non-sensitizer. EYE CONTACT: Moderate eye irritant. TARGET ORGANS: Eyes, central nervous system, reproductive system, possibly skin. CARCINOGENICITY RATING: NTP: N/L IARC: N/L OSHA: N/L ACGIH: N/L None. SIGNS AND SYMPTOMS: N/D. Overexposure to the alcohol by inhalation or ingestion can cause flushing, headache, dizziness, mental depression, nausea, vomiting, drowsiness, anesthesia and coma. Vapor levels at or above 400 ppm for 3-5 minutes cause mild irritation to eyes, nose, and throat. Dryness or cracking of skin may occur after prolonged or repeated contact. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: N/D. Pre-existing eye,

skin, or respiratory disorders.

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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.

5. FIRE FIGHTING PROCEDURES

FLASH POINT: 53° F (for Isopropanol)
FLASH POINT METHOD: Closed Cup
LOWER EXPLOSIVE LIMIT(%): 2.0% (for Isopropanol)
UPPER EXPLOSIVE LIMIT(%): 12.7% (for Isopropanol @ 200° F)
AUTOIGNITION TEMPERATURE: 750° F (for Isopropanol)

- FIRE & EXPLOSION HAZARDS: Flammable liquid, keep away from sparks and open flame. Vapors can flow along surfaces to distant ignition source and flash back.
- EXTINGUISHING MEDIA: Use water spray, "alcohol" foam, carbon dioxide or dry chemical. Water spray may be used to keep fire-exposed containers cool, dilute spills to non-flammable mixtures, protect personnel, and disperse vapors.
- FIRE FIGHTING INSTRUCTIONS: Wear full protective clothing and NIOSHapproved self-contained breathing apparatus.

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6. ACCIDENTAL RELEASE MEASURES

SPILL OR RELEASE PROCEDURES: Use non-sparking tools and equipment to contain and recover product. Collect liquid and place in appropriate container for disposal. If an absorbent is required, use only inert materials (e.g. vermicultie, dry sand, earth). Do not use combustible materials such as saw dust. Ventilate and wash area with water.

- 7. HANDLING AND STORAGE
- HANDLING: Flammable liquid. Containers should be bonded and grounded for transfers to avoid static sparks.
- STORAGE: Keep containers tightly closed when not in use. Keep away from heat, sparks, and open flame.

SPECIAL PRECAUTIONS: None that are known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust.

- RESPIRATORY PROTECTION: Air purifying respirator with organic vapor filter.
- SKIN PROTECTION: Wear impervious protective clothing, as necessary to minimize contact. Neoprene and nitrile rubber are recommended by isopropanol suppliers.
- EYE PROTECTION: Safety glasses, goggles, and/or full-face shield where splashing is possible.

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

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PAGE 5 ProGibb® 4.0% MSDS# BIO-0028 Rev. 2 Issued 07/23/04 _____ 9. PHYSICAL AND CHEMICAL PROPERTIES _____ APPEARANCE/PHYSICAL STATE: Colorless to light yellow liquid ODOR: Characteristic (Rubbing alcohol) BOILING POINT: 82.5 C (for Isopropanol) MELTING/FREEZING POINT: N/A VAPOR PRESSURE (mm Hg): 33 mmHg @ 20C (for Isopropanol) VAPOR DENSITY (Air=1): 2.07 (for Isopropanol) EVAPORATION RATE: N/D BULK DENSITY: N/D SPECIFIC GRAVITY: 0.80 (for Product @ 25° C) SOLUBILITY: Miscible with water and most solvents pH: 2.9 (10% slurry @ 20-25° C) VISCOSITY: N/D 10. STABILITY AND REACTIVITY _____ CHEMICAL STABILITY: Stable under ordinary conditions of use and storage. INCOMPATIBILITIES: Strong oxidizing materials and strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide and carbon monoxide may form when heated to decomposition.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

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

DERMAL LD50: LD50 (rabbit) > 2,000 mg/kg

INHALATION LC50: No lethality was observed in rats after a 4 hour nose-only exposure to an aerosol concentration of 5.67 mg/L.

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11. TOXICOLOGICAL INFORMATION, continued _____

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

- DERMAL IRRITATION: Animals exhibited mild to moderate redness at the site of application in a skin irritation test in rabbits. The product is considered to be a mild to slight irritant.
- OCULAR IRRITATION: Produced mild to moderate corneal opacity, mild iritis and mild to severe conjunctival redness, swelling and discharge in an eye irritation test in rabbits. The product is considered to be a moderate irritant.
- DERMAL SENSITIZATION: Based on results from testing in guinea pigs, product is not classified as a skin sensitizer.
- SPECIAL TARGET ORGAN EFFECTS: N/D. In reproduction studies in rats, no maternal or fetal toxicity, or other adverse effects to the fetus were noted following large dosages (1000 mg/kg/day) of gibberellic acid. Isopropanol is a central nervous system depressant. Repeated exposure at high concentrations (2.5% or greater in drinking water) produced a variety of reproductive, fertility and developmental effects in rats.
- 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.

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ProGibb® 4.0% MSDS# BIO-0028 Rev. 2 _____ 14. TRANSPORTATION INFORMATION _____ DOT STATUS: Regulated PROPER SHIPPING NAME: Isopropanol Solution, 3, UN1219, II HAZARD CLASS: 3 UN NUMBER: UN1219 PACKING GROUP: II REPORTABLE QUANTITY: N/A IATA/ICA0 STATUS: Regulated PROPER SHIPPING NAME: Isopropanol Solution HAZARD CLASS: 3 UN NUMBER: UN1219 PACKING GROUP: II REPORTABLE QUANTITY: N/A IMO STATUS: Regulated PROPER SHIPPING NAME: Isopropanol Solution HAZARD CLASS: 3

UN NUMBER: UN1219 PACKING GROUP: II REPORTABLE QUANTITY: N/A FLASH POINT: 53 F (for Isopropanol)

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 ISS	SUE: Corrected IMO Hazard Class nomencl in Section 14	lature	
APPROVAL DATE: SUPERSEDES DAI MSDS Number:	E: 08/04/03		
N/D = N/L = L = C = S = ® =	Not Applicable Not Determined Not Listed Listed Ceiling Short-term Registered Trademark of Valent BioScier Registered Trademark of Valent BioScier		

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