

ReLease® LC  
MSDS# BIO-0053 Rev. 1

ISSUED 03/04/12

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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MATERIAL NAME: Release LC  
EPA Registration No. 73049-42  
Drug Code: 34775; List Number: 11220

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

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

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INGREDIENT NAME: Gibberellic Acid  
CONCENTRATION: 4.0000 %  
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  
OTHER 8HR TWA: 10 mg/m3  
LIMITS STEL: N/A  
CEILING: N/A  
EEC (European Community):  
Symbol Designation: N/D  
Risk Phrases: N/D  
Safety Phrases: N/D

INGREDIENT NAME: Isopropanol  
CONCENTRATION: 95.03 %  
CAS/RTECS NUMBERS: 67-63-0/NT8050000  
OSHA-PEL 8HR TWA: 400 ppm  
STEL: N/L  
CEILING: N/L  
ACGIH-TLV 8HR TWA: 400 ppm  
STEL: 500 ppm  
CEILING: N/L  
OTHER 8HR TWA: N/A

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2. COMPOSITION, cont.

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LIMITS            STEL: N/A  
                  CEILING: N/A

INGREDIENT NAME: Other ingredients maintained as trade secret.  
CONCENTRATION: 0.7 %  
CAS/RTECS NUMBERS: 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  
OTHER 8HR TWA: N/A  
LIMITS            STEL: N/A

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3. HAZARDS INFORMATION

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EMERGENCY OVERVIEW: Flammable liquid. This material is an eye irritant.

Keep away from heat, sparks and flame.

**RISK STATEMENTS:** R11 Highly Flammable

R36/37/38 Irritating to eyes, respiratory system and skin.

**SAFETY STATEMENTS:**

S7 Keep container tightly closed

S16 Keep away from sources of ignition. No smoking

ROUTE(S) OF ENTRY:            Skin: No  
    Inhalation: Yes  
    Ingestion: No

INGESTION RATING: None

SKIN ABSORPTION RATING: None

INHALATION RATING: None

CORROSIVENESS RATING: None

SKIN CONTACT RATING: None

SKIN SENSITIZATION RATING: None

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EYE CONTACT RATING: Irritant

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### 3. HAZARDS INFORMATION, continued

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TARGET ORGANS: Eyes, central nervous system, reproductive system,  
possibly skin

CARCINOGENICITY RATING: NTP: NL IARC: NL OSHA: NL  
ACGIH: NL  
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 disease.

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### 4. FIRST AID MEASURES

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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

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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)

AUTOIGNITION TEMPERATURE: 750° F (for Isopropanol)

FIRE & EXPLOSION HAZARDS: Flammable Liquid. Keep away from heat, sparks and flame.

EXTINGUISHING MEDIA: Use "alcohol" foam, dry chemical or carbon dioxide. Water may be ineffective.

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

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## 6. ACCIDENTAL RELEASE MEASURES

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SPILL OR RELEASE PROCEDURES: Use an absorbent product such as saw dust if the spill warrants it. Recover product and place in appropriate container for disposal. Ventilate and wash area.

Do not breath fumes.

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## 7. HANDLING AND STORAGE

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HANDLING: Do not breath fumes.

STORAGE: Do not store above 49 C/120 F. Store large amounts in structures made for OSHA Class I B liquids. Keep container tightly closed & upright when not in use to prevent leakage.

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

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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ENGINEERING CONTROLS: Use local exhaust.

RESPIRATORY PROTECTION: Air purifying respirator with organic vapor

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cartridge.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION, continued

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SKIN PROTECTION: Butyl or nitrile rubber.

EYE PROTECTION: Full-face respirator.

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

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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APPEARANCE/PHYSICAL STATE: Colorless to light yellow liquid

ODOR: Rubbing alcohol

BOILING POINT: 82.5°C (for Isopropanol)

MELTING/FREEZING POINT: -89.5°C (for Isopropanol)

VAPOR PRESSURE (mm Hg): 33 mm Hg at 20°C (for Isopropanol)

VAPOR DENSITY (Air=1): 2.07 (for Isopropanol)

EVAPORATION RATE: N/D

BULK DENSITY: 0.82

SPECIFIC GRAVITY: N/D

SOLUBILITY: Miscible with water and most solvents

pH: 3-4

VISCOSITY: N/D

**FLAMMABILITY CLASSIFICATION:** Class I B

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## 10. STABILITY AND REACTIVITY

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CHEMICAL STABILITY: N/D

INCOMPATIBILITIES: Oxidizing materials, including hydrogen peroxide and strong acids of bases.

HAZARDOUS DECOMPOSITION PRODUCTS: N/D.

HAZARDOUS POLYMERIZATION: N/D.

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## 11. TOXICOLOGICAL INFORMATION

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ORAL TOXICITY: LD50 > 5,000 mg/kg in rats.

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DERMAL TOXICITY: LD50 > 2,000 mg/kg in rabbits.

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## 11. TOXICOLOGICAL INFORMATION, continued

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INHALATION TOXICITY: Not lethal in an inhalation study with rats at an aerosol concentration of 5.67 mg/l/4 hours.

CORROSIVENESS: N/D

DERMAL IRRITATION: Animals exhibited mild to moderate redness that recovered in 10 days in a skin irritation test in rabbits. The primary irritation index was 1.6 on a scale of 0 to 8.

OCULAR IRRITATION: Produced mild to moderate corneal opacity, mild iritis and mild to severe conjunctival redness, swelling and discharge recovering in 28 days in an eye irritation test in rabbits. Superficial corneal vascularization developed in one animal. The maximum total irritation score was 28.3 on a scale of 0-110.

DERMAL SENSITIZATION: Did not produce a sensitization response in the Buehler assay in guinea pigs at a challenge concentration of 10% in water.

SPECIAL TARGET ORGAN EFFECTS: N/D. Gibberellic acid is a natural plant growth regulator. 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. Isopropyl alcohol is a central nervous system depressant. Repeated exposure at high concentrations (2.5% or greater in drinking water) induced a variety of reproductive, fertility and developmental effects in rats.

CARCINOGENICITY INFORMATION: N/D

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## 12. ECOLOGICAL INFORMATION

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ECOLOGICAL INFORMATION: Gibberellic acid is of very low hazard to birds, fish and bees. Care should be taken to not pollute waters with the formulation.



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### 13. DISPOSAL CONSIDERATIONS

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

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### 14. TRANSPORTATION INFORMATION

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**DOT SHIPPING NAME:** Isopropanol, 3, UN1219, PG-II  
**STATUS:** Regulated

**DRUM LABEL:** (FLAMMABLE LIQUID)

**IATA/ICAO:** Isopropanol, 3, UN1219, PG-II

**IMO/IMDG:** Isopropanol, 3, UN1219, PG-II

**PROPER SHIPPING NAME:** Isopropanol Solution, 3, UN1219, II

HAZARD CLASS: 3

UN NUMBER: UN1219

PACKING GROUP: II

REPORTABLE QUANTITY: N/D

IATA/ICAO STATUS: Regulated

**PROPER SHIPPING NAME:** Isopropanol Solution

HAZARD CLASS: 3

UN NUMBER: UN1219

PACKING GROUP: II

REPORTABLE QUANTITY: N/D

IMO STATUS: Regulated

**PROPER SHIPPING NAME:** Isopropanol Solution

HAZARD CLASS: Class 3.2

UN NUMBER: UN1219

PACKING GROUP: II

REPORTABLE QUANTITY: N/D

FLASH POINT: 53 F (for Isopropanol)

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### 15. REGULATORY INFORMATION

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**SARA SECTION 311/312 HAZARDS:** Acute Health, Fire

**TSCA STATUS:** The alcohol component of this product is on the TSCA list.

**CERCLA STATUS:** N/D

**RCRA STATUS:** N/D

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PROP 65 (CA): N/D

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## 16. OTHER INFORMATION

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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 Corp.  
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