MATERIAL SAFETY DATA SHEET

I IDENTIFICATION

PRODUCT: Domoic Acid

MANUFACTURER:

BioVectra dcl 16 McCarville St. West Royalty Industrial Park Charlotte town, P.E. I. C1E 2A6 (902)566-1396

EMERGENCY TELEPHONENO.: CANUTEC 613-996-6666 CHEMICAL NAME: (2S,3S,4S)-2-Carboxy-4-[1-Methyl-5(R)-Carboxy-1(Z),3 (E)-Hexadienyl]-Pyrrolidine-3-Acetic Acid CATALOGUE NUMBER: 1380 CHEMICAL FAMILY: Neuro-Excitatory Amino Acid; Glutamate Agonist MOLECULAR FORMULA: $C_{15}H_{21}N_1O_6$ MOLECULAR WEIGHT: 311 WHMIS CLASSIFICATION: Class D, Division 1, Subdivision B. Toxic Material. TSCA STATUS: This material is sold for research and development use only. Use in applications other than research and development may require prior approval from the EPA or inclusion on the TSCA inventory. PRODUCT USE: For laboratory use only. Not for drug use.

II HAZARDOUS INGREDIENTS

(2S,3S,4S)-2-Carboxy-4-[1-Methyl-5(R)-Carboxy-1(Z),3 (E)-Hexadienyl]-Pyrrolidine-3-Acetic Acid >99% CAS Registry No.: 14277-97-5

III TOXICOLOGICAL PROPERTIES

EFFECTS OF ACUTE EXPOSURE Routes of Entry Skin Contact [x] Eye Contact [x] Skin Absorption [x] Inhalation [x] Ingestion [x] EYES: Not available. SKIN: May be fatal if absorbed through the skin INHALATION: May cause irritation, may be harmful. Avoid inhalation INGESTION: Toxic. CHRONIC HEALTH HAZARDS: Unknown. To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated. EVIDENCE OF CARČIŇOGENIČITY, TERATOGENICITY, REPRODUCTIVE TOXICITY, MUTAGENICITY: No data available SYNERGISTIC PRODUCTS: Not available SENSITIZATION TO PRODUCT: Not available IRRITANCY OF PRODUCT: Not available EXPOSURE LIMITS: Not available LDLO: Oral mouse 68 mg/Kg LD50: IP mouse 3.6 mg/kg DOMOIC ACID IS A GLUTAMATE AGONIST WITH NEUROTOXIC EFFECTS IF INGESTED. AVOID INHALATION OF DUST OR PHYSICAL CONTACT WHEN WEIGHING OR HANDLING.

IV FIRST AID MEASURES

EYES: Flush eyes with water for at least 15 minutes and get medical attention.

SKIN: In case of contact, im mediately flush a rea with plenty of water.

INHALATION: If inhaled, remove victim to fresh air. If not breathing,give artificial respiration. If breathing is difficult, give oxygen and obtain medical attention.

INGESTION: If ingested, drink plenty of fluids and obtain immediate medical attention.

V FIRE AND EXPLOSION HAZARDS

FLAMMABLE: No FLASH POINT: Not applicable FLAMMABLE LIMITS (% in air) Lower: Not applicable Upper: Not applicable EXTINGUISHING MEDIA: Water spray, dry chemical AUTOIGNITION TEMPERATURE: Not available HAZARDOUS COMBUSTION PRO DUCTS: Not available EXPLOSION DATA: Sensitivity to mechanical impact, not available; Sensitivity to stat ic discharg e, not available.

VI REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: Not available.

HAZARDOUS DECOMPOSITION PRODUCTS: Not available

HAZARDOUS POLYMERIZATION: Will not occur.

VII PHYSICAL DATA

PHYSICAL STATE: Solid APPEARANCE AND ODOUR: White powder or off-white crystals ODOUR THRESHOLD: Not available MELTING POINT: 213-217°C BOILING POINT: Not available SPECIFIC GRAVITY: Not available VAPOUR PRESSURE: Not available VAPOUR DENSITY: Not available WATER SO LUBILITY: Slightly so luble (8 mg/m L) EVAPORATION RATE: Not available pH: 3 COEFFICIENT OF OIL/WATER: Not available

III PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: Lab coat, safety goggles, and rubber gloves.

VENTILATION: General ventilation

RESPIRATORY PROTECTION: Standard chemical dust protection, ie. appropriate OSHA/MSHA approved respirator.

LEAK AND SPILL PROCEDURES: Absorb material with paper towel. Wash area with soap and water.

WASTE DISPOSAL: May be disposed of in public sewage system in accordance with federal, provincial, state and local regulations.

STORAGE REQUIREMENTS: $-15 \pm 5^{\circ}C$

SPECIAL SHIPPINGINFORMATION: Toxic Solid Organic N.O.S. TDG Class 6, Division 1, Packing Group III

LABEL PRECAUTIONARY STATEMENTS: Caution: Toxic if swallowed. Avoid eye and skin contact. Avoid inhalation and ingestion.

IX PREPARATION OF MSDS

PREPARED BY:	Jeremy Stiles
DATE:	4 January 2001
Phone Number:	902-566-1396

*n.av. not available n.ap. not applicable

The information provided on this MaterialSafetyData Sheet is provided in the interest of promoting safe handling of the material. While this information is believed to be correct, DCL makes no warrantyin respect to any of the information disclosed. Observe all federal, provincial, state and local laws concerning health and pollution.

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