



**Tri-DWARF**  
Industrial Co.Ltd

**Tri-DWARF INDUSTRIAL CO., LTD.**

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## Material Safety Data Sheet

### 2,4-Epibrassinolide

#### 1: Chemical Product and Company Identification

**Product Name:** 2,4-Epibrassinolide

**Catalog Code:** 30631003-1

**CAS#:** 78821-43-9

**RTECS:** Not available.

**TSCA:** TSCA 8(b) inventory : No products were found.

**CI#:** Not available.

**Synonym:** (22R, 23R, 24R)-2 $\alpha$ , 3 $\alpha$ , 22, 23-Tetrahydroxy-24-methyl- $\beta$ -homo-7-oxa-5-cholestan-6-one

**Chemical Name:** (22R, 23R, 24R)-2 $\alpha$ , 3 $\alpha$ , 22, 23-Tetrahydroxy-24-methyl- $\beta$ -homo-7-oxa-5-cholestan-6-one

**Chemical Formula:** C<sub>28</sub>H<sub>48</sub>O<sub>6</sub>

#### 2: Composition and Information on Ingredients

**Composition:**

Name	CAS#	% by Weight
2,4-Epibrassinolide	78821-43-9	90

**Toxicological Data on Ingredients:**

LD<sub>50</sub> (Oral, Rat): > 2000mg/kg

LD<sub>50</sub> (Oral, Mouse): >1000mg/kg

LD<sub>50</sub> (Subcutaneous, Rat): >2000mg/kg

#### 3: Hazards Identification

**Potential Acute Health Effects:** May cause eye and skin irritation.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

#### 4: First Aid Measures

**Eye Contact:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**Skin Contact:** In case of contact, immediately wash skin with soap and copious amounts of water.

**Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

**Inhalation:** If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

**Serious Inhalation:** Not available.

**Ingestion:** If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**Serious Ingestion:** Not available.

#### 5: Fire and Explosion Data

**Flammability of the Product:** May be combustible at high temperature.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** Not available.

**Flammable Limits:** Not available.

**Product of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Not available.

**Explosion Hazards in Presence of Various Substances:**  
Not available.

#### **Fire Fighting Media and Instructions:**

SMALL FIRE: Dry chemical powder.

LARGE FIRE: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

#### 6: Accidental Release Measures

**Small Spill:** Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

#### 7: Handling and Storage

**Precautions:** Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage:** Keep tightly closed. Store at -20°C

#### 8: Exposure Controls/Personal Protection

**Engineering Controls:** Safety shower and eye bath. Mechanical exhaust required.

**Personal Protection:** Respiratory : Government approved respirator.

Hand: Chemical resistant gloves.

Eye: Safety glasses.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Boots. Dust respirator. Gloves.

**Exposure Limits:** Not available.

#### 9: Physical and Chemical Properties

**Physical State and Appearance:** Solid (Crystals).

**Odor:** Not available.

**Taste:** Not available.

**Molecular Weight:** 478.8 g/mole

**Color:** White.

**pH(1% soln/water):** Not available.

**Boiling Point:** Not available.

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** Not available.

**Vapour Pressure:** Not available.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** Not available.

**Solubility:** Not available.

#### 10: Stability and Reactivity Data

**Stability:** Stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available.

**Incompatibility with various substances:** Strong oxidizing agents.

**Corrosivity:** Not available.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

### 11: Toxicological Information

**Routes of Entry:** Skin contact. Eye contact. Ingestion. Inhalation.

**Toxicity to Animals:**

LD<sub>50</sub> (Oral, Rat): > 2000mg/kg

LD<sub>50</sub> (Oral, Mouse): >1000mg/kg

LD<sub>50</sub> (Subcutaneous, Rat): >2000mg/kg

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:** Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:** Not available.

### 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Product of Biodegradation:** Not available.

**Toxicity of the Products of Biodegradation:** Not available.

**Special Remarks on the Products of Biodegradation:** Not available.

### 13: Disposal Considerations

**Waste Disposal:** Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

#### 14: Transport Information

**DOT Classification:** Not a DOT controlled material.

**Identification:** Not available.

**Special Provisions for Transport:** Not available.

#### 15: Other Regulatory Information

**Federal and State Regulations:** TSCA 8(b) inventory : No products were found.

**Other Regulations:** Not available.

**Other Classifications:**

**WHMIS(Canada):** Not available.

**DSCL(EEC):** Not available.

**HMIS(U.S.A):**

**Health Hazard:** 0

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:**

**National Fire Protection Association (U.S.A):**

**Health:** 0

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:** Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety goggles.

#### 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 20/10/2006 12:10:26 PM

**Last Updated:** 10/12/2008 3:31:36 PM