

### **Section 1 - General Information**

**Chemical Name:**

11-cis Retinal

**CAS Reg. Number:**

564-87-4

**Preparation Date/Revision Date:**

10/2/2007

**Manufacturer's Name:**

Toronto Research Chemicals Inc.,

2 Brisbane Rd., North York, ON

Canada, M3J 2J8

**Telephone Number:**

416-665-9696     **Fax Number:**

416-665-4439

### **Section 2 - Hazardous Ingredients/Identity Information**

Avoid contact and inhalation. The toxicological properties of this compound have not been thoroughly investigated. Exercise due care.

### **Section 3 - Physical/Chemical Characteristics**

**Boiling Point:**

N/A

**Appearance and Odor:**

Crystalline Solid

**Vapor Pressure:**

N/A

**Specific Gravity(H<sub>2</sub>O=1):**

N/A

**Solubility in Water:**

N/A

**Melting Point:**

N/A

**Evaporation Rate (ButylAcetate=1):**

N/A

**Vapor Density:**

N/A

### **Section 4 - Reactive Data**

**Stability:**

good, protect from light

**Incompatibility (Materials to Avoid):**

Strong acids, strong bases Strong oxidizing agents

**Conditions to Avoid:**

strong oxidizers and light

**Hazardous Decomposition or Byproducts:**

Carbon monoxide, Carbon dioxide

**Hazardous Polymerization:**

will not occur

### **Section 5 - Control Measures**

**Respiratory Protection:**

Niosh/Msha approved respirator

**Ventilation:**

Hood

**Protective Gloves:**

chemical resistant gloves

**Eye Protection:**

safety goggles

**Other Protective Clothing:**

lab coat, apron

**Other Protection:**

Safety shower and eyewash

### **Section 6 - First Aid Measures**

**Inhalation:**

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

**Skin:**

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

**Ingestion:**

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

**Eyes:**

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.

**Section 7 - Health Hazard Data****Health Hazards (Acute and Chronic):**

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. Toxic if inhaled. Ingestion: Harmful if swallowed. May cause irritation. The toxicological properties have not been thoroughly investigated. Exercise due care!

**Medical Conditions Generally Aggravated by Exposure:**

material may be irritating to mucous membranes and upper respiratory tract.

**Section 8 - Precautions for Safe Handling and Use****Steps to be Taken in Case Material is Released or Spilled:**

Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. 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.

**Waste Disposal Method:**

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.

**Precautions to Be Taken in Handling and Storage:**

Keep tightly closed. Store in a cool dry place.

**Section 9 - Fire and Explosion Hazard Data****Extinguishing Media:**

Carbon Dioxide, Dry chemical powder or appropriate foam.

**Special Fire Fighting Procedures:**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Unusual Fire and Explosion Hazards:**

Emits Toxic Fumes under Fire Conditions.

**Section 10 - Transportation Information and regulatory information**

Transportation Information DOT Proper Shipping Name: None Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport. IATA Non-Hazardous for Air Transport: Non-hazardous for air transport.