

Section 1 - General Information

Chemical Name:

4-Keto all-trans-Retinoic Acid

CAS Reg. Number:

38030-57-8

Preparation Date/Revision Date:

5/1/2009

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

Target Organ(s): Eyes. Nerves. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. Do Not Breathe Dust.

Section 3 - Physical/Chemical Characteristics

Boiling Point:

N/A

Appearance and Odor:

yellow to orange crystalline powder

Vapor Pressure:

N/A

Specific Gravity(H₂O=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:

stable, light and moisture sensitive store under inert gas

Incompatibility (Materials to Avoid):

strong oxidizing agents

Conditions to Avoid:

protect from 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 or apron

Other Protection:

eye safety wash

Section 6 - First Aid Measures

Inhalation:

Remove to fresh air. If breathing becomes difficult, call a Physician.

Skin:

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:

flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a Physician.

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

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Exercise due care. ROUTE OF EXPOSURE Skin Contact: May cause skin irritation. Skin Absorption: May be harmful if absorbed through the skin. Eye Contact: May cause eye irritation. Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract. Ingestion: May be harmful if swallowed. A metabolite of all-trans-Retinoic Acid, a ligand for both the retinoic acid receptor (RAR) and the retinoid X receptor (RXR).

Medical Conditions Generally Aggravated by Exposure:

Gastrointestinal; Musculo-Skeletal; Skin & Appendages; Immunological including Allergic; Paternal effects; effects on Fertility; Effects on Embryo or Fetus; Specific Development abnormalities; Effects on Newborn.

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

wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. sweep up, place in a bag and hold for waster disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Waste Disposal Method:

dissolve or mix 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:

wear appropriate NIOSH/MSHA-approved respirator. Chemical-resistant gloves, safety goggles, other protective clothing. use only in a chemical fume hood. Oxidizes in the presence of air, store under nitrogen.

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

water spray. 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:**Section 10 - Transportation Information and regulatory 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.