

September 29, 1999

MATERIAL SAFETY DATA SHEET

[CAUTION: The identity of this substance is proprietary to Starks Associates, Inc. and to the National Cancer Institute]

-----IDENTIFICATION-----

Chemical Name: Oleana-1,9(11)-dien-28-oic acid, 2-cyano-3,12-dioxo-

Other Name: NSC-711193

Starks Reference No: KS60-144-1

Chemical Formula: $C_{31}H_{41}NO_4$

-----CAS REGISTRY NUMBER(S)-----

CAS # 218600-44-3

-----HEALTH HAZARD DATA-----

No applicable information for CAS # 218600-44-3 was found; avoid any contact with skin, eyes, or lungs.

-----PRIMARY ROUTE(S) OF ENTRY (Accidental Exposure)-----

No applicable information was found; prevent all accidental exposure to skin, eyes, or lungs.

-----PHYSICAL AND CHEMICAL CHARACTERISTICS-----

White solid; melting point $>300^{\circ}C(d)$; soluble in EtOAc, CH_2Cl_2 , $CHCl_3$, or acetonitrile; slightly soluble in ethanol.

-----PHYSICAL HAZARDS-----

No applicable information was found; as with most organic powders, dust explosion may be possible when powder is suspended in air.

-----EXPOSURE LIMIT-----

No specifically applicable information was found; advisable to avoid exposure to skin, eyes or lungs.

-----NTP, IARC, OSHA-----

No entries were found. To the best of our knowledge, the potential carcinogenic properties of this material are not known.

-----PRECAUTIONS FOR SAFE HANDLING-----

This product should be handled only by, or under close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of many compounds are not yet well defined.

Appropriate Hygiene Practices

Avoid personal contact through ingestion, inhalation, contact with eyes or skin.

Protective Measures During Repair or Maintenance of Contaminated Equipment

No applicable information was found.

Steps to be taken if 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 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 & local laws.

-----CONTROL MEASURES-----

Engineering Controls

Mechanical exhaust required.

Personal Protective Equipment

Safety glasses or chemical safety goggles.
Impermeable gloves and lab coat. NIOSH/MSHA approved respirator may be advisable.

-----EMERGENCY AND FIRST AID PROCEDURES-----

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

In case of contact, immediately wash skin with soap and copious amounts of water.

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Call a physician.

Wash contaminated clothing before reuse or discard.

Information contained herein is based upon observations made in the course of resynthesizing this substance and other information available to us. We have undertaken no tests to confirm the accuracy or completeness of this information and assume no responsibility in this regard.