MATERIAL SAFETY DATA SHEET

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Section 1 - Product and Company Information Product Name 16,17-EPIESTRIOL Product Number E3875 Brand SIGMA Company Sigma-Aldrich Address 3050 Spruce Street SAINT LOUIS MO 63103 US Technical Phone: 800-325-5832 Fax: 800-325-5052 Emergency Phone: 314-776-6555 Section 2 - Composition/Information on Ingredient Substance Name SARA 313 CAS # 16,17-EPIESTRIOL 793-89-5 No Section 3 - Hazards Identification EMERGENCY OVERVIEW Caution: Avoid contact and inhalation. Target organ(s): Female reproductive system. HMIS RATING HEALTH: 1* FLAMMABILITY: 0 REACTIVITY: 0 NFPA RATING HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0 *additional chronic hazards present. For additional information on toxicity, please refer to Section 11. Section 4 - First Aid Measures ORAL EXPOSURE If swallowed, wash out mouth with water provided person is conscious. Call a physician. INHALATION EXPOSURE If inhaled, remove to fresh air. If breathing becomes difficult, call a physician. DERMAL EXPOSURE In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE 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. Section 5 - Fire Fighting Measures FLASH POINT N/A AUTOIGNITION TEMP N/A FLAMMABILITY N/A EXTINGUISHING MEDIA Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam. FIREFIGHTING Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions. Section 6 - Accidental Release Measures PROCEDURE(S) OF PERSONAL PRECAUTION(S) Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust. METHODS FOR CLEANING UP 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. Section 7 - Handling and Storage HANDLING User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. STORAGE Suitable: Keep tightly closed. Section 8 - Exposure Controls / PPE ENGINEERING CONTROLS Safety shower and eye bath. Mechanical exhaust required. PERSONAL PROTECTIVE EQUIPMENT Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Hand: Protective gloves. Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

Appearance	Physical State	: Solid		
Property	Value	At	Temperature	or Pressure
рН	N/A			
BP/BP Range	N/A			
MP/MP Range	N/A			
Freezing Point	N/A			
Vapor Pressure	N/A			
Vapor Density	N/A			
Saturated Vapor Conc.	N/A			
Bulk Density	N/A			
Odor Threshold	N/A			
Volatile%	N/A			
VOC Content	N/A			
Water Content	N/A			
Solvent Content	N/A			
Evaporation Rate	N/A			
Viscosity	N/A			
Surface Tension	N/A			
Partition Coefficient	N/A			
Decomposition Temp.	N/A			
Flash Point	N/A			
Explosion Limits	N/A			
Flammability	N/A			
Autoignition Temp	N/A			
Refractive Index	N/A			
Optical Rotation	N/A			
- Miscellaneous Data	N/A			
Solubility	N/A			
N/A = not available				
Section 10 - Stability	and Reactivity			
STABILITY				
Stable: Stable.				
Materials to Avoid:	Strong oxidizing	g agents	•	

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

HAZARDOUS POLYMERIZATION

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.

TARGET ORGAN(S) OR SYSTEM(S) Female reproductive system. SIGNS AND SYMPTOMS OF EXPOSURE Some steroids show carcinogenic and teratogenic activity. CONDITIONS AGGRAVATED BY EXPOSURE The toxicological properties have not been thoroughly investigated. CHRONIC EXPOSURE - CARCINOGEN Result: Some steroids show carcinogenic and teratogenic activity. CHRONIC EXPOSURE - TERATOGEN Result: Some steroids show carcinogenic and teratogenic activity. Section 12 - Ecological Information No data available. Section 13 - Disposal Considerations APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION 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.

Section 14 - Transport 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.

Section 15 - Regulatory Information

US CLASSIFICATION AND LABEL TEXT US Statements: Caution: Avoid contact and inhalation. Target organ(s): Female reproductive system.

UNITED STATES REGULATORY INFORMATION SARA LISTED: No

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR. DSL: No NDSL: No

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2010 Sigma-Aldrich Co. License granted to make unlimitedpaper copies for internal use only.