Sigma-Aldrich

Material Safety Data Sheet
Version 4.2
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Estriol
Product Number: E1253
Brand: Sigma
Product Use: For laboratory research purposes.
Supplier: Sigma-Aldrich
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SAINT LOUIS MO 63103 USA

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Emergency Phone # (For both supplier and manufacturer): (314) 776-6555
Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
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2. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards
Target Organ Effect, Carcinogen, Reproductive hazard

Target Organs
Female reproductive system.

GHS Classification
Acute toxicity, Oral (Category 5)
Carcinogenicity (Category 2)
Reproductive toxicity (Category 1B)

GHS Label elements, including precautionary statements

Pictogram

Signal word: Danger

Hazard statement(s)
H353: May be harmful if swallowed.
H351: Suspected of causing cancer.
H360: May damage fertility or the unborn child.

Precautionary statement(s)
P201: Observe all safety precautions before use.
P203: Use personal protective equipment as required.
P305 + P313: IF exposed or concerned. Get medical advice/attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: 3,16α,17β-Trihydroxy-1,5(10)-estratriene 16α-Hydroxyestradiol 1,3,5(10)-Estratriene 3,16α,17β-triol

Formula: C_{18}H_{22}O_{3}

Molecular Weight: 298.38 g/mol

CAS No.: 50-27-1

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

NFPA Rating
Health hazard: 0
Fire: 0
Reactivity hazard: 0

Potential Health Effects
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: May be harmful if swallowed.
### 7. HANDLING AND STORAGE

- **Precautions for safe handling:** Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at the work area if dust is formed. Normal measures for personal safety protection.
- **Conditions for safe storage:** Keep container tightly closed in a dry and well-ventilated place.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- **Personal protective equipment:** Use dust respiratory protection. Use appropriate eye protection. Use rubber-faced, grooved gloves. Use rubber or polypropylene apron. Use non-slip shoes.
- **Respiratory protection:** Use a disposable respirator. Use a half-mask with organic vapor and particulate filters.
- **Eye protection:** Use safety goggles. Use a chemical splash shield.
- **Skin and body protection:** Use protective clothing. Use appropriate personal protective equipment. Use rubber or polypropylene gloves. Use non-slip shoes.

### 10. STABILITY AND REACTIVITY

- **Stability:** Stable under recommended storage conditions.
- **Conditions to avoid:** Avoid exposure to strong oxidizing agents. Strong reducing agents may cause decomposition.
- **Hazardous decomposition products:** May produce hazardous decomposition products under extreme conditions.

### 11. TOXICOLOGICAL INFORMATION

- **Acute toxicity:** Oral: LD₅₀: 2,000 mg/kg.
- **Skin and eye irritation:** Skin: Slightly irritating. Eye: Slightly irritating.
- **Respiratory or skin sensitization:** No data available.
- **Genetic toxicity:** No data available.
- **Carcinogenicity:** No data available.

### 12. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance:** Colorless liquid.
- **Physical data:** Melting point: -38°C. Boiling point: 293°C. Density: 0.987 g/cm³.

### Additional Information

- **Further Reading:** EN 136/CEN-CU 6.3.2016. 06/10/2016.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
May cause reproductive disorders.

Teratogenicity

Presumed human reproductive toxicant

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion: May be harmful if swallowed.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.

Synergistic effects
no data available

Additional Information
RTECS: K08225000

12. ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. 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.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
Target Organ Effect, Carcinogen, Reproductive hazard

DSL Status
All components of this product are on the Canadian DSL list.

SARA 302 Components
SARA 202: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

New Jersey Right To Know Components

California Prop. 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information
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