

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 16 Aug 2022

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Estriol

1.1. Catalog No.:

672983

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Carcinogenicity (Category 2)
Reproductive toxicity (Category 1B)
Classification according to EU Directives 67/548/EEC or 1999/45/EC
May cause harm to the unborn child. May impair fertility. Limited evidence of a carcinogenic effect. Limited evidence of a carcinogenic effect. May impair fertility. May cause harm to the unborn child.

2.2. Label elements

2.2.1. Pictogram



2.2.2.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram Signal word Danger

Hazard statement(s)

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

Precautionary statement(s)

P201 Obtain special instructions before use.

P281 Use personal protective equipment as required.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard

Statements

None According to European Directive 67/548/EEC as amended.

Hazard symbol(s) R-phrases(s)

R40 Limited evidence of a carcinogenic effect.

R60 May impair fertility.

R61 May cause harm to the unborn child.

S-phrases(s)

S36/37 Wear suitable protective clothing and gloves.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S53 Avoid exposure - obtain special instructions before use.

Restricted to professional users.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

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

16α-Hydroxyestradiol

1,3,5(10)-Estratriene-3,16α,17β-triol

Formula : C18H24O3

Molecular Weight : 288,38 g/mol

Component Concentration

Oestriol

CAS-No.

EC-No.

50-27-1

200-022-2

-

3.1.1. Formula

C18H24O3

3.1.2. Molecular Weight (g/mol)

288.38

3.1.3. CAS-No.

50-27-1

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

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.

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

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

6.3 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.

6.4 Reference to other sections

For disposal see section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry Hands Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: solid

b) Odour no data available

c) Odour Threshold no data available

d) pH no data available

e) Melting point/freezing point

Melting point/range: 280 - 282 °C - lit.

f) Initial boiling point and boiling range

no data available

g) Flash point no data available

h) Evaporation rate no data available

i) Flammability (solid, gas) no data available

j) Upper/lower

flammability or

explosive limits

no data available

k) Vapour pressure no data available

l) Vapour density no data available

m) Relative density no data available

- n) Water solubility no data available
- o) Partition coefficient: noctanol/
water
no data available
- p) Auto-ignition
temperature
no data available
- q) Decomposition
temperature
no data available
- r) Viscosity no data available s) Explosive properties no data available
- t) Oxidizing properties no data available
- 9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY

- 10.1 Reactivity
no data available
- 10.2 Chemical stability
no data available
- 10.3 Possibility of hazardous reactions
no data available
- 10.4 Conditions to avoid
no data available
- 10.5 Incompatible materials
Strong oxidizing agents
- 10.6 Hazardous decomposition products
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
 - Acute toxicity
 - LD50 Oral - rat - > 2.000 mg/kg
 - Skin corrosion/irritation
no data available
 - Serious eye damage/eye irritation
no data available
 - Respiratory or skin sensitization
no data available
 - Germ cell mutagenicity
no data available
 - Carcinogenicity
There is limited evidence for the carcinogenicity of estriol in experimental animals. Studies in humans strongly suggest that the administration of estrogens is causally related to an increased incidence of endometrial carcinoma; there is no evidence that estriol is different from other estrogens in this respect.
Limited evidence of carcinogenicity in animal studies
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
 - Reproductive toxicity
Presumed human reproductive toxicant
May cause reproductive disorders.
 - Specific target organ toxicity - single exposure
no data available
 - Specific target organ toxicity - repeated exposure
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.
Additional Information
RTECS: KG8225000

12. ECOLOGICAL INFORMATION

- 12.1 Toxicity
no data available
- 12.2 Persistence and degradability
no data available
- 12.3 Bioaccumulative potential
no data available
- 12.4 Mobility in soil
no data available
- 12.5 Results of PBT and vPvB assessment
no data available
- 12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods
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

- 14.1 UN number
ADR/RID: - IMDG: - IATA: -
- 14.2 UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods
- 14.3 Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -
- 14.4 Packaging group
ADR/RID: - IMDG: - IATA: -
- 14.5 Environmental hazards
ADR/RID: no IMDG Marine Pollutant: no IATA: no
- 14.6 Special precautions for user
no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available 15.2 Chemical Safety Assessment

no data available

16. OTHER INFORMATION

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. For lab use only!