

# Estradiol benzoate

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 17/02/2025 Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
Substance name : Estradiol benzoate  
Chemical name : Estradiol benzoate  
EC-No. : 200-043-7  
CAS-No. : 50-50-0  
Product code : 202400664

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### Relevant identified uses

Use of the substance/mixture : Scientific research and development  
Technical testing and analysis  
For professional use only  
Function or use category : Laboratory chemicals

##### Uses advised against

Restrictions on use : Not for food, drug or home use

#### 1.3. Details of the supplier of the safety data sheet

European Directorate for the Quality of Medicines & Healthcare  
EDQM, Council of Europe  
7, Allée Kastner, CS30026  
F 67081 Strasbourg  
France  
T +33(0)388412035, F +33(0)388412771  
[sds@edqm.eu](mailto:sds@edqm.eu), [www.edqm.eu](http://www.edqm.eu)

#### 1.4. Emergency telephone number

Emergency number : +33(0)390215608

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Carcinogenicity, Category 1A H350  
Reproductive toxicity, Category 1A H360  
Reproductive toxicity, Additional category, Effects on or via lactation H362

Full text of H- and EUH-statements: see section 16

##### Adverse physicochemical, human health and environmental effects

May cause cancer. May damage fertility or the unborn child. May cause harm to breast-fed children.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

Signal word (CLP)

: Danger

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|  |   |
|--|---|
| Hazard statements (CLP)  | : H350 - May cause cancer.<br>H360 - May damage fertility or the unborn child.<br>H362 - May cause harm to breast-fed children.   |
| Precautionary statements (CLP)   | : P201 - Obtain special instructions before use.<br>P202 - Do not handle until all safety precautions have been read and understood.<br>P260 - Do not breathe dust/fume/gas/mist/vapours/spray.<br>P263 - Avoid contact during pregnancy and while nursing.<br>P264 - Wash hands, forearms and face thoroughly after handling.<br>P270 - Do not eat, drink or smoke when using this product.<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.<br>P308+P313 - IF exposed or concerned: Get medical advice/attention.<br>P405 - Store locked up.<br>P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. |
| Labelling according to: Exemption for inner packaging where the contents do not exceed 10ml. |   |

Hazard pictograms (CLP)



GHS08

### 2.3. Other hazards

|                   |  |
|-------------------|--|
| Other information | : Active substance (in pharmaceutical products).<br>Warning - substance not yet tested completely. |
|-------------------|--|

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

| Name               | Product identifier                    | %     | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--------------------|---------------------------------------|-------|---|
| Estradiol benzoate | CAS-No.: 50-50-0<br>EC-No.: 200-043-7 | ≤ 100 | Carc. 1A, H350<br>Repr. 1A, H360<br>Lact., H362                 |

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                       |  |
|---------------------------------------|--|
| First-aid measures general            | : In all cases of doubt, or when symptoms persist, seek medical attention.   |
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing. Allow the victim to rest. If the person feels unwell : Get medical advice/attention.          |
| First-aid measures after skin contact | : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.  |
| First-aid measures after eye contact  | : Rinse with water while holding the eyes wide open. Obtain medical attention if pain, blinking or redness persists.   |
| First-aid measures after ingestion    | : Rinse mouth out with water (only if the person is conscious). Never give anything by mouth to an unconscious person. Get immediate medical advice/attention. |

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Carbon dioxide. Water spray. Dry powder. Extinguishing blanket.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

- Hazardous decomposition products in case of fire : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases. Toxic fumes may be released.

#### 5.3. Advice for firefighters

- Firefighting instructions : Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid contact with skin, eyes and clothing.
- For non-emergency personnel**
- Emergency procedures : Evacuate unnecessary personnel.
- For emergency responders**
- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

#### 6.3. Methods and material for containment and cleaning up

- For containment : Absorb with an inert material and place in an appropriate waste disposal container.
- Methods for cleaning up : Clean contaminated surfaces with an excess of water. Clean with the help of detergents.

#### 6.4. Reference to other sections

See Section 13 for disposal information.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Additional hazards when processed : Do not expose pregnant or breastfeeding women.
- Precautions for safe handling : Avoid all unnecessary exposure. Ensure good ventilation of the work station.
- Hygiene measures : Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash hands before work breaks and after finishing work.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Keep away from heat and direct sunlight.
- Packaging materials : Keep in original containers.

#### 7.3. Specific end use(s)

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

##### Appropriate engineering controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station. Both local exhaust and general room ventilation are usually required. Material should be handled in a laboratory hood whenever possible.

##### Personal protection equipment

##### Eye and face protection

##### Eye protection:

Wear eye protection. Safety glasses with side shields. (EN 166)

##### Skin protection

##### Skin and body protection:

Wear suitable protective clothing. Laboratory use : Lab coat. (EN 13034)

##### Hand protection:

Wear suitable gloves. Chemically resistant protective gloves. (EN 374)

##### Respiratory protection

##### Respiratory protection:

In case of dust formation use respirator with filter: P3

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|   |                                 |
|---|---------------------------------|
| Physical state                                  | : Solid                         |
| Colour  | : white. Colourless.            |
| Appearance                                      | : Crystalline powder. Crystals. |
| Molecular mass                                  | : 376.5 g/mol                   |
| Odour   | : Not available                 |
| Odour threshold                                 | : Not available                 |
| Melting point                                   | : $\approx 195^{\circ}\text{C}$ |
| Freezing point                                  | : Not available                 |
| Boiling point                                   | : Not available                 |
| Flammability                                    | : Not available                 |
| Lower explosion limit                           | : Not applicable                |
| Upper explosion limit                           | : Not applicable                |
| Flash point                                     | : Not applicable                |
| Auto-ignition temperature                       | : Not applicable                |
| Decomposition temperature                       | : Not available                 |
| pH  | : Not available                 |
| pH solution                                     | : Not available                 |
| Viscosity, kinematic                            | : Not applicable                |
| Solubility                                      | : Water: $< 0.1\text{ g/l}$     |
| Partition coefficient n-octanol/water (Log Kow) | : Not available                 |
| Vapour pressure                                 | : Not available                 |
| Vapour pressure at $50^{\circ}\text{C}$         | : Not available                 |
| Density   | : Not available                 |
| Relative density                                | : Not available                 |
| Relative vapour density at $20^{\circ}\text{C}$ | : Not applicable                |
| Particle size                                   | : Not available                 |

#### 9.2. Other information

No additional information available

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

No additional information available

#### 10.3. Possibility of hazardous reactions

No additional information available

#### 10.4. Conditions to avoid

No additional information available

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

No additional information available

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

|                             |   |
|-----------------------------|---|
| Acute toxicity (oral)       | : Not classified (Based on available data, the classification criteria are not met) |
| Acute toxicity (dermal)     | : Not classified (Lack of data)   |
| Acute toxicity (inhalation) | : Not classified (Lack of data)   |

#### Estradiol benzoate (50-50-0)

|                                   |   |
|-----------------------------------|---|
| LD50 oral rat                     | > 2000 mg/kg (estimated value)  |
| Skin corrosion/irritation         | : Not classified (Lack of data)   |
| Serious eye damage/irritation     | : Not classified (Lack of data)   |
| Respiratory or skin sensitisation | : Not classified (Lack of data)   |
| Germ cell mutagenicity            | : Not classified (Based on available data, the classification criteria are not met) |
| Carcinogenicity                   | : May cause cancer.   |
| Reproductive toxicity             | : May damage fertility or the unborn child. May cause harm to breast-fed children.  |
| STOT-single exposure              | : Not classified (Lack of data)   |
| STOT-repeated exposure            | : Not classified (Lack of data)   |
| Aspiration hazard                 | : Not classified (Lack of data)   |

#### 11.2. Information on other hazards

No additional information available

### SECTION 12: Ecological information

#### 12.1. Toxicity

|   |                                 |
|---|---------------------------------|
| Hazardous to the aquatic environment, short-term (acute)  | : Not classified (Lack of data) |
| Hazardous to the aquatic environment, long-term (chronic) | : Not classified (Lack of data) |

#### 12.2. Persistence and degradability

#### Estradiol benzoate (50-50-0)

|                               |                        |
|-------------------------------|------------------------|
| Persistence and degradability | Not rapidly degradable |
|-------------------------------|------------------------|

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### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

No additional information available

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

| ADR                                     | IMDG           | IATA           |
|---|----------------|----------------|
| <b>14.1. UN number or ID number</b>     |                |                |
| Not applicable                          | Not applicable | Not applicable |
| <b>14.2. UN proper shipping name</b>    |                |                |
| Not applicable                          | Not applicable | Not applicable |
| <b>14.3. Transport hazard class(es)</b> |                |                |
| Not applicable                          | Not applicable | Not applicable |
| <b>14.4. Packing group</b>              |                |                |
| Not applicable                          | Not applicable | Not applicable |
| <b>14.5. Environmental hazards</b>      |                |                |
| Not applicable                          | Not applicable | Not applicable |
| No supplementary information available  |                |                |

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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### SECTION 15: Regulatory information

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

##### EU-Regulations

##### REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

##### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

##### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

##### Council Regulation (EC) for the control of dual-use items

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

#### Full text of H- and EUH-statements:

|          |   |
|----------|---|
| Carc. 1A | Carcinogenicity, Category 1A  |
| H350     | May cause cancer.   |
| H360     | May damage fertility or the unborn child.                               |
| H362     | May cause harm to breast-fed children.                                  |
| Lact.    | Reproductive toxicity, Additional category, Effects on or via lactation |
| Repr. 1A | Reproductive toxicity, Category 1A                                      |

Safety Data Sheet (SDS), EU

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