

**Material Safety Data Sheet**

according to ANSI Z400.1-2004

**16alpha-Fluoroestradiol**

Print date: 22.02.2012

Product code: 1910

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

16alpha-Fluoroestradiol

**Further trade names**

CA index name: Estra-1,3,5(10)-triene-3,17-diol, 16-fluoro-, (16alpha,17beta)

16alpha-Fluoro-13beta-methyl-1,3,5(10)-gonatriene-3,17beta-diol; 16alpha-Fluoro-17beta-estradiol;  
FES**Chemical characterization ( substance )****Details of the supplier of the safety data sheet**

Company name:	ABX advanced biochemical compounds	
	Biomedizinische Forschungsreagenzien GmbH	
Street:	Heinrich-Gläserstraße 10-14	
Place:	D-01454 Radeberg	
Telephone:	+49 3528 4041 60	Telefax: +49 3528 4041 61
e-mail:	info@abx.de	
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e-mail:	mollitor@abx.de	
Internet:	http://www.abx.de	

**Emergency telephone:** +49 3528 4041 60**SECTION 2: Hazards identification****Route(s) of Entry****Signs and Symptoms of Exposure**

Carcinogenicity (NTP):	No information available.
Carcinogenicity (IARC):	No information available.
Carcinogenicity (OSHA):	No information available.

**SECTION 3: Composition/information on ingredients****Substances**

Sum formula:	C18H23FO2
Molecular weight:	290.37

**SECTION 4: First aid measures****Description of first aid measures****General information**

Avoid contact with skin, eye and clothing.

**After inhalation**

Inhalation of dust may cause irritation of the respiratory system. Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

**After contact with skin**

After contact with skin, wash immediately with: Water. Change contaminated clothing. If skin irritation

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or rash occurs: Get medical advice/attention.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. If eye irritation persists: Get medical advice/attention.

**After ingestion**

If swallowed, immediately drink: Water.

**SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing media**

Water spray. Foam. Extinguishing powder. Carbon dioxide (CO<sub>2</sub>). ABC powder.

**Special hazards arising from the substance or mixture**

Can be released in case of fire: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide.

**Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Use a water spray jet to knock down vapours/gases/mists. Contaminated fire-fighting water must be collected separately. Do not empty into drains or the aquatic environment.

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment. Provide adequate ventilation. Avoid generation of dust.

**Environmental precautions**

Do not empty into drains or the aquatic environment.

**Methods and material for containment and cleaning up**

Collect mechanically. Treat the assimilated material according to the section on waste disposal.

**SECTION 7: Handling and storage****Precautions for safe handling****Advice on safe handling**

Avoid contact with skin, eye and clothing. Do not breathe dust. In case of open handling equipment with built-in suction must be used.

**Further information on handling**

Do not eat, drink, smoke or sneeze at the workplace.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container dry. Keep container tightly closed.

**Further information on storage conditions**

storage temperature:

at °C: -20 ± 5

Protect against: Light.

**SECTION 8: Exposure controls/personal protection****Control parameters****Exposure controls****Protective and hygiene measures**

Change contaminated clothing. Wash hands before breaks and at the end of work. When using do not

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eat or drink.

### Hand protection

Tested protective gloves are to be worn: Single-use gloves. NBR (Nitrile rubber).

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Form: solid  
Color: colourless  
Odor: odourless

### Test method

### Changes in the physical state

Melting point: 180 – 210 °C

Flash point: Non-flammable.

### Flammability

Solid: Non-flammable.

Ignition temperature: Non-flammable.

### Oxidizing properties

Not oxidizing.

Water solubility: insoluble

## SECTION 10: Stability and reactivity

Stability: Stable

Possibility of Hazardous Reactions: Will not occur

### Conditions to avoid

Decomposition possible after prolonged exposure to light.

### Incompatible materials

Oxidizing agents, strong.

### Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours.

## SECTION 11: Toxicological information

### Information on toxicological effects

#### Toxicokinetics, metabolism and distribution

No information available.

#### Acute toxicity

Toxicological data are not available.

#### Specific effects in experiment on an animal

No information available.

#### Irritation and corrosivity

No information available.

#### Sensitizing effects

No information available.

#### Severe effects after repeated or prolonged exposure

Toxicological data are not available.

#### Carcinogenic/mutagenic/toxic effects for reproduction

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Due to missing data no statement can be made about, whether the substance fulfills the criteria of CMR categories 1 or 2.

### Additional information on tests

The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).

### Empirical data on effects on humans

Harmful if inhaled. Harmful if swallowed. Harmful in contact with skin.

## SECTION 12: Ecological information

### Toxicity

Toxicological data are not available.

### Further information

Do not empty into drains or the aquatic environment. The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).

## SECTION 13: Disposal considerations

### Waste treatment methods

#### Advice on disposal

Do not empty into drains or the aquatic environment. Waste disposal according to official state regulations.

#### Contaminated packaging

Cleaned containers may be recycled. Handle contaminated packaging in the same way as the substance itself.

## SECTION 14: Transport information

### Other applicable information

Not a hazardous material with respect to these transportation regulations.

## SECTION 15: Regulatory information

### U.S. Regulations

## SECTION 16: Other information

### Hazardous Materials Information Label (HMIS)

Health:	1
Flammability:	0
Physical Hazard:	0
Personal Protection:	C

### NFPA Hazard Ratings

Health:	1
Flammability:	0
Reactivity:	1
Unique Hazard:	

