according to UK REACH Regulation

16alpha-Fluoroestradiol					
Revision date: 12.05.2022	Product code	:: 1910	Page 1 of 5		
SECTION 1: Identification of the substance/mixture and of the company/undertaking					
<u>1.1. Product identifier</u> 16alpha-Fluoroestradiol					
Further trade names					
CA index name: Estra-1,3,5	5(10)-triene-3,17-diol, 16-fluoro-, (16a	lpha,17beta)			
16alpha-Fluoro-13beta-met	hyl-1,3,5(10)-gonatriene-3,17beta-dio	bl; 16alpha-Fluoro-17beta-estradiol; FES			
	ne substance or mixture and uses a				
Use of the substance/mixture					
Reference standard for 16a	lpha-[18F]Fluoroestradiol				
1.3. Details of the supplier of the	safety data sheet				
Company name:	ABX advanced biochemical compounds				
	Biomedizinische Forschungsre	agenzien GmbH			
Street:	Heinrich-Gläser-Straße 10-14				
Place:	01454 Radeberg				
Telephone:	+49 3528 4041 60	Telefax: +49 3528 4041 65			
e-mail:	info@abx.de				
Contact person:	Dr. Christoph Meyer	Telephone: +49 3528 4041 8732			
e-mail:	meyer@abx.de				
Internet:	http://www.abx.de				
1.4. Emergency telephone	+49 3528 4041 60				
numbor					

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

This substance is not classified as hazardous in accordance with GB CLP Regulation.

2.2. Label elements

GB CLP Regulation

Precautionary statements

P370	In case of fire:
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula:	C18H23FO2
Molecular weight:	290.37

Hazardous components

none (according to UK REACH Regulation)

SECTION 4: First aid measures

4.1. Description of first aid measures

according to UK REACH Regulation

16alpha-Fluoroestradiol

Revision date: 12.05.2022

Product code: 1910

Page 2 of 5

General information

Avoid contact with skin, eyes and clothes.

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 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

5.1. Extinguishing media

Suitable extinguishing media

Water spray. Foam. Extinguishing powder. Carbon dioxide (CO2). ABC powder.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide

5.3. Advice for firefighters

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

Additional information

Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Wear personal protection equipment. Provide adequate ventilation. Avoid dust formation.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes and clothes. Do not breathe dust. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Advice on general occupational hygiene

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Further information on handling

When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

according to UK REACH Regulation

16alpha-Fluoroestradiol			
Revision date: 12.05.2022	Product code: 1910	Page 3 of 5	
Requirements for storage rooms ar	ıd 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

8.1. Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Individual protection measures, such as personal protective equipment

Hand protection

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Colour:	solid colourless
Odour:	odourless
Changes in the physical state Melting point/freezing point:	180 – 210 °C
Flash point:	Non-flammable.
Flammability Solid/liquid:	Non-flammable.
Auto-ignition temperature:	Non-flammable.
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties Not oxidising.

Further Information

SECTION 10: Stability and reactivity

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Decomposition under formation of: Carbon dioxide (CO2). Carbon monoxide Fluorinated hydrocarbons.

10.4. Conditions to avoid

May cause decomposition by long-term light influence.

10.5. Incompatible materials

Oxidizing agents, strong.

according to UK REACH Regulation

16alpha-Fluoroestradiol

Revision date: 12.05.2022

Product code: 1910

Page 4 of 5

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

Toxicological data are not available.

Irritation and corrosivity

No information available.

Sensitising effects

No information available.

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-repeated exposure

Toxicological data are not available.

Specific effects in experiment on an animal

No information available.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

11.2. Information on other hazards

Other information

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

SECTION 12: Ecological information

12.1. Toxicity

Toxicological data are not available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

according to UK REACH Regulation

16alpha-Fluoroestradiol				
Revision date: 12	.05.2022 Product code: 1910	Page 5 of 5		
List of Wastes Code - used product 160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste				
List of Wastes Code - contaminated packaging				
150110	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste			
Contaminated Non-conta substance	minated packages may be recycled. Handle contaminated packages in the same way as the			
SECTION 14: Transport information				
Other applicable information No dangerous good in sense of these transport regulations.				
SECTION 15: Regulatory information				
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture National regulatory information				

Water hazard class (D):

3 - highly hazardous to water

SECTION 16: Other information