according to UK REACH Regulation

MMSE (Precursor)

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

1.1. Product identifier

MMSE (Precursor)

Further trade names

CA index name: Estra-1,3,5(10)-triene-16,17-diol, 3-(methoxymethoxy)-, cyclic sulfate, (16beta,17beta)

3-(Methoxymethoxy)-1,3,5(10)-gonatriene-16beta,17beta diol-16,17-cyclic sulfate; 3-O-(Methoxymethyl) -16,17-O-sulfuryl-16-epiestriol; 3-Methoxymethyl-16beta,17beta-epiestriol-O-cyclic sulfone; FES precursor

CAS No: 177714-21-5

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

1.3. Details of the supplier of the safety data sheet

Company name: ABX advanced biochemical compounds

Biomedizinische Forschungsreagenzien GmbH

Street: Heinrich-Gläser-Straße 10-14

Place: 01454 Radeberg
Telephone: +49 3528 4041 60

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

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

2.3. Other hazards

Warning - substance not yet tested completely.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: C20H26O6S Molecular weight: 394.48

Hazardous components

none (according to UK REACH Regulation)

SECTION 4: First aid measures

4.1. Description of first aid measures

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.

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After contact with skin

After contact with skin, wash immediately with: Water. Change contaminated clothing. May cause an allergic skin reaction. 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

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

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 Sulfur oxides.

5.3. Advice for firefighters

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

Additional information

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. Protect skin by using skin protective cream.

Further information on handling

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

7.2. 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:

of °C: +2

up to °C: +8

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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

Eye/face protection

Eye protection: Tightly sealed safety glasses.

Hand protection

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

Skin protection

Body protection: Lab apron. Chemical resistant safety shoes.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: solid
Colour: white
Odour: odourless

Changes in the physical state

Melting point/freezing point: 158-159 °C
Water solubility: insoluble

SECTION 10: Stability and reactivity

10.2. Chemical stability

Thermal decomposition can lead to the escape of irritating gases and vapours. The product can hydrolyse. The stated effect can be caused partly by the decomposition products.

10.3. Possibility of hazardous reactions

Decomposition under formation of: Carbon dioxide (CO2). Carbon monoxide Sulfur oxides.

10.4. Conditions to avoid

May cause decomposition by long-term light influence.

10.5. Incompatible materials

Oxidizing agents, strong. Water.

10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours. Decomposition under formation of: Carbon dioxide (CO2). Carbon monoxide Sulfur oxides.

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.

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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.

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.

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.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself

SECTION 14: Transport information

Other applicable information

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

$\underline{\textbf{15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture}$

National regulatory information

Water hazard class (D): 3 - highly hazardous to water

SECTION 16: Other information