

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 19.12.2011

Version number 1

Revision: 19.12.2011

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

- **1.1. Product identifier**
- **Trade name:** Aflatoxin M2
- **Article number:** 77024
- **CAS Number:**
6885-57-0
- **EC number:**
229-989-9
- **1.2. Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Laboratory chemicals
- **1.3. Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SERVA Electrophoresis GmbH
Carl-Benz-Str. 7
D-69115 Heidelberg
Tel.: +49 6221 13840-0
FAX: +49 6221 13840-10
msds.info@serva.de
- **Information department:** Product Safety department Tel.: +49 6221 13840-35
- **1.4. Emergency telephone number:** +49 6131 19240 (university hospital Mainz)

SERVA
Electrophoresis

2 Hazards identification

- **2.1. Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS06

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 1 H310 Fatal in contact with skin.

Acute Tox. 1 H330 Fatal if inhaled.



GHS08

Carc. 1A H350 May cause cancer.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



T+; Very toxic

R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed.



T; Toxic

R45: May cause cancer.

- **Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

- **2.2. Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms** GHS06, GHS08
- **Signal word** Danger
- **Hazard statements**
H300 Fatal if swallowed.

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*H310 Fatal in contact with skin.**H330 Fatal if inhaled.**H350 May cause cancer.***· Precautionary statements***P201 Obtain special instructions before use.**P281 Use personal protective equipment as required.**P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.**P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**P330 Rinse mouth.**P302+P350 IF ON SKIN: Gently wash with plenty of soap and water.***· 2.3. Other hazards****· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.**3 Composition/information on ingredients****· 3.1. Chemical characterization: Substances****· CAS No. Description:***6885-57-0 2,3,6a,8,9,9a-hexahydro-9a-hydroxy-4-methoxycyclopenta[c]furo[3',2':4,5]furo[2,3-h][1]benzopyran-1,11-dione***· Identification number(s):****· EC number:** 229-989-9**· Description:****· Empirical formula:** C₁₇H₁₂O₇**· MW:** 330,30**4 First aid measures****· 4.1. Description of first aid measures****· General information** Remove contaminated clothing.**· After inhalation** Supply fresh air or oxygen; call for doctor.**· After skin contact** Immediately wash with water and soap and rinse thoroughly.**· After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.**· After swallowing***Rinse out mouth and then drink plenty of water.**Call for doctor immediately.***· Information for doctor****· 4.2. Most important symptoms and effects, both acute and delayed***No further relevant information available.***· 4.3. Indication of any immediate medical attention and special treatment needed***No further relevant information available.***5 Firefighting measures****· 5.1. Extinguishing media****· Suitable extinguishing agents***CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.***· 5.2. Special hazards arising from the substance or mixture***In case of fire, the following can be released:**Carbon monoxide and carbon dioxide*

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- **5.3. Advice for firefighters**
- **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

- **6.1. Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2. Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3. Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4. Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **7.1. Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store under lock and key and with access restricted to technical experts or their assistants only.
Protect from exposure to the light.
Keep receptacle tightly sealed.
- **7.3. Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1. Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2. Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
Short term filter device:
Filter P3.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Neoprene gloves

Rubber gloves

- **Eye protection:** Safety glasses

- **Body protection:** Protective work clothing.

9 Physical and chemical properties

- **9.1. Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Powder

Colour: Whitish

Odour: uncharacteristic

- **Change in condition**

Melting point/Melting range: 237-240°C

Boiling point/Boiling range: undetermined

Flash point: Not applicable

Flammability (solid, gaseous) Product is not flammable.

Danger of explosion: Product does not present an explosion hazard.

Density: Not determined

- **Solubility in / Miscibility with**

Water: Insoluble

Organic solvents: Soluble in many organic solvents

9.2. Other information No further relevant information available.

10 Stability and reactivity

- **10.1. Reactivity**

- **10.2. Chemical stability**

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3. Possibility of hazardous reactions No dangerous reactions known

10.4. Conditions to avoid No further relevant information available.

10.5. Incompatible materials: No further relevant information available.

10.6. Hazardous decomposition products: No dangerous decomposition products known

11 Toxicological information

- **11.1. Information on toxicological effects**

- **Acute toxicity:**

- **Primary irritant effect:**

on the skin: No irritant effect.

on the eye: No irritating effect.

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- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:** Danger through skin resorption.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Carc. 1A


12 Ecological information

- **12.1. Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **12.2. Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **12.3. Bioaccumulative potential** No further relevant information available.
- **12.4. Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
- **12.5. Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **12.6. Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1. Waste treatment methods**
- **Recommendation** Must be specially treated adhering to official regulations.
- **Uncleaned packagings:**
- **Recommendation:**
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

14 Transport information

- | | |
|---|---|
| · 14.1. UN-Number | |
| · ADR, IMDG, IATA | UN2811 |
| · 14.2. UN proper shipping name | |
| · ADR | 2811 TOXIC SOLID, ORGANIC, N.O.S. (2,3,6a,8,9,9a-Hexahydro-9a-hydroxy-4-methoxycyclopenta[c]furo[3',2':4,5]furo[2,3-h][1]benzopyran-1,11-dione) |
| · IMDG | TOXIC SOLID, ORGANIC, N.O.S. (2,3,6a,8,9,9a-Hexahydro-9a-hydroxy-4-methoxycyclopenta[c]furo[3',2':4,5]furo[2,3-h][1]benzopyran-1,11-dione) |
| · IATA | Toxic solid, organic, n.o.s. (2,3,6a,8,9,9a-Hexahydro-9a-hydroxy-4-methoxycyclopenta[c]furo[3',2':4,5]furo[2,3-h][1]benzopyran-1,11-dione) |
| · 14.3. Transport hazard class(es) | |
| · ADR | |
|  | |
| · Class | 6.1 Toxic substances. |

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· Label	6.1
· IMDG, IATA	
	
· Class	6.1 Toxic substances.
· Label	6.1
· 14.4. Packing group	
· ADR, IMDG, IATA	I
· 14.5. Environmental hazards:	
· Marine pollutant:	No
· 14.6. Special precautions for user	Warning: Toxic substances.
· Danger code (Kemler):	66
· EMS Number:	F-A,S-A
· 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Tunnel restriction code	C/E
· UN "Model Regulation":	UN2811, TOXIC SOLID, ORGANIC, N.O.S. (2, 3, 6a, 8, 9, 9a-hexahydro-9a-hydroxy-4-methoxycyclopenta[c]furo[3',2':4,5]furo[2,3-h][1]benzopyran-1,11-dione), 6.1, I

15 Regulatory information

- **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
 - **National regulations**
 - **Information about limitation of use:** Employment restrictions concerning young persons must be observed.
 - **Technical instructions (air):**
- | Class | Share in % |
|-------|------------|
| I | 80-100 |
- **Water hazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.
 - **15.2. Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Product safety department
- **Contact:** +49 6221 13840-35
- **Abbreviations and acronyms:**
 PBT: persistent, bioaccumulative, toxic substance (REACH)
 vPvB: very persistent, very bioaccumulative substance (REACH)
 REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
 CLP: Regulation on classification, labelling and packaging of substances and mixtures
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

· *** Data compared to the previous version altered.**

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