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

Printing date 28.11.2011 *Version number 1* *Revision: 19.08.2011*

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

· **1.1. Product identifier**

· **Trade name:** Cytochalasin B

· **Article number:** 18015
· **CAS Number:**
14930-96-2
· **EC number:**
239-000-2
· **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)

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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

Repr. 2 H361d Suspected of damaging the unborn child.

· **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.

Xn; Harmful

R63: Possible risk of harm to the unborn child.
· **Classification system:**
The classification was made according to the latest editions of the EU-lists, and expanded upon fom 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.

(Contd. on page 2)

SERVA Electrophoresis GmbH

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

Printing date 28.11.2011 *Version number 1* *Revision: 19.08.2011*

Trade name: Cytochalasin B

(Contd. of page 1)

H310 Fatal in contact with skin.
H330 Fatal if inhaled.
H361d Suspected of damaging the unborn child.

· **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P201 Obtain special instructions before use.
P264 Wash thoroughly after handling.
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.
P405 Store locked up.

· **2.3. Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** PBT - assessment not available.
· **vPvB:** vPvB - assessment not available.

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3 Composition/information on ingredients

· **3.1. Chemical characterization: Substances**
· **CAS No. Description:**
14930-96-2 7(S),20(R)-dihydroxy-16(R)-methyl-10-phenyl-24-oxa[14]cytochalasa-6(12),13(E),21(E)-triene-1,23-dione
· **Identification number(s):**
· **EC number:** 239-000-2
· **Description:**
· **Empirical formula:** $C_{29}H_{37}NO_5$
· **MW:** 479,60

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4 First aid measures

· **4.1. Description of first aid measures**
· **General information** Remove contaminated clothing.
· **After inhalation** Supply fresh air and to be sure call for a doctor.
· **After skin contact** Clean with water and soap. If possible, also wash with polyethylene glycol 400.
· **After eye contact**
Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing.
· **After swallowing**
Rinse out mouth and then drink plenty of water.
Call a 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.

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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:
Nitrogen oxides (NOx)
Carbon monoxide and carbon dioxide

(Contd. on page 3)

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

Printing date 28.11.2011 Version number 1 Revision: 19.08.2011

Trade name: Cytochalasin B

(Contd. of page 2)

· **5.3. Advice for firefighters**
· **Protective equipment:** *Wear self-contained respiratory protective device.*

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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.

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7 Handling and storage

· **Handling**
· **7.1. Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Thorough dedusting.
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 at +2 to +8 °C*
· **Information about storage in one common storage facility:** *Store away from oxidizing agents.*
· **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store under lock and key and with access restricted to technical experts or their assistants only.
· **7.3. Specific end use(s)** *No further relevant information available.*

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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:**
Protective gloves.
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.

(Contd. on page 4)

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

Printing date 28.11.2011 Version number 1 Revision: 19.08.2011

Trade name: Cytochalasin B

(Contd. of page 3)

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 trough 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:**
Natural rubber, NR
Nitrile rubber, NBR

· **Eye protection:** *Safety glasses*

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

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9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:	*Powder*
Colour:	*White*
· **Odour:**	*Characteristic*
· **Change in condition**	
Melting point/Melting range:	*215 - 222°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**	
Organic solvents:	*Soluble in many organic solvents*
· **9.2. Other information**	*There are no more data available.*

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10 Stability and reactivity

· **10.1. Reactivity** *No further relevant informations available*

· **10.2. Chemical stability**

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

· **10.3. Possibility of hazardous reactions** *No further relevant informations available.*

· **10.4. Conditions to avoid** *No further relevant information available.*

· **10.5. Incompatible materials:** *Avoid contact with: strong oxidizers, strong acids, strong alcali*

· **10.6. Hazardous decomposition products:**
Nitrogen oxides
Carbon monoxide and carbon dioxide

(Contd. on page 5)

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

Printing date 28.11.2011 Version number 1 Revision: 19.08.2011

Trade name: Cytochalasin B

(Contd. of page 4)

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11 Toxicological information

· **11.1. Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
Oral	LD50	35 mg/kg (Maus)

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:** Danger through skin resorption.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
Repr. 2

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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 hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even 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 not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

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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. (7(S),20(R)-dihydroxy-16(R)-methyl-10-phenyl-24-oxa[14]cytochalasa-6(12),13(E),21(E)-triene-1,23-dione)
· **IMDG**	TOXIC SOLID, ORGANIC, N.O.S. (7(S),20(R)-dihydroxy-16(R)-methyl-10-phenyl-24-oxa[14]cytochalasa-6(12),13(E),21(E)-triene-1,23-dione)

(Contd. on page 6)

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

Printing date 28.11.2011 *Version number 1* *Revision: 19.08.2011*

Trade name: Cytochalasin B

(Contd. of page 5)

· **IATA**	Toxic solid, organic, n.o.s. (7(S),20(R)-dihydroxy-16(R)-methyl-10-phenyl-24-oxa[14]cytochalasa-6(12),13(E),21(E)-triene-1,23-dione)
· **14.3. Transport hazard class(es)**	
· **ADR**	
· **Class**	6.1 Toxic substances.
· **Label**	6.1
· **IMDG, IATA**	
· **Class**	6.1 Toxic substances.
· **Label**	6.1
· **14.4. Packing group**	
· **ADR, IMDG, IATA**	II
· **14.5. Environmental hazards:**	
· **Marine pollutant:**	No
· **14.6. Special precautions for user**	Warning: Toxic substances.
· **Danger code (Kemler):**	60
· **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**	D/E
· **UN "Model Regulation":**	UN2811, TOXIC SOLID, ORGANIC, N.O.S., 6.1, II

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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 pregnant and lactating women must be observed.

· **Technical instructions (air):**

Class	Share in %
I	80-100

· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
· **15.2. Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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(Contd. on page 7)

Safety data sheet
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Printing date 28.11.2011 *Version number 1* *Revision: 19.08.2011*

Trade name: Cytochalasin B

(Contd. of page 6)

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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)
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
· **** Data compared to the previous version altered.***