

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

Printing date 28.11.2011

Version number 2

Revision: 14.10.2011

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

- 1.1. Product identifier
- Trade name: DePeX
- Article number: 18243
- 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



GHS02

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08

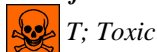
Repr. 1B H360Df May damage the unborn child. Suspected of damaging fertility.



GHS07

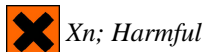
Skin Irrit. 2 H315 Causes skin irritation.

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



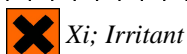
T; Toxic

R61: May cause harm to the unborn child.



Xn; Harmful

R20/21-62: Harmful by inhalation and in contact with skin. Possible risk of impaired fertility.



Xi; Irritant

R38: Irritating to skin.

R10: Flammable.

- Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- Classification system:

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

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- **2.2. Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS02, GHS07, GHS08
- **Signal word** Danger
- **Hazard-determining components of labelling:**  
dibutyl phthalate
- **Hazard statements**  
H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H360Df May damage the unborn child. Suspected of damaging fertility.
- **Precautionary statements**  
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P201 Obtain special instructions before use.  
P264 Wash thoroughly after handling.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P405 Store locked up.
- **2.3. Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **3.2. Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

CAS: 1330-20-7 EINECS: 215-535-7	xylene, mixture of isomers ☒ Xn R20/21; ☒ Xi R38 R10 ☠ Flam. Liq. 3, H226; ☠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	60-80%
CAS: 84-74-2 EINECS: 201-557-4	dibutyl phthalate ☠ T Repr. Cat. 2, 3 R61; ☒ Xn R62; ☠ N R50 ☠ Repr. 1B, H360Df; ☠ Aquatic Acute 1, H400	2.5-7%

- **SVHC**

84-74-2	dibutyl phthalate
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- **Additional information** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

- **4.1. Description of first aid measures**
- **General information**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Drink copious amounts of water and provide fresh air. Call for doctor immediately.

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- **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**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **5.2. Special hazards arising from the substance or mixture** No further relevant information available.
- **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 equipment. Keep unprotected persons away.
- **6.2. Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3. Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **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**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Keep respiratory protective device available.
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Do not store together with oxidizing materials.
- **Further information about storage conditions:**  
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.

## **8 Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.

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· **8.1. Control parameters**· **Components with limit values that require monitoring at the workplace:****1330-20-7 xylene, mixture of isomers (60-80%)**

WEL () Short-term value: 441 mg/m<sup>3</sup>, 100 ppm  
Long-term value: 220 mg/m<sup>3</sup>, 50 ppm  
Sk; BMGV

**84-74-2 dibutyl phthalate (2.5-7%)**

WEL () Short-term value: 10 mg/m<sup>3</sup>  
Long-term value: 5 mg/m<sup>3</sup>

· **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 A/P2.

· **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.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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:**

Nitrile rubber, NBR

· **Eye protection:** Tightly sealed goggles.· **Body protection:** Protective work clothing.\* **9 Physical and chemical properties**· **9.1. Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form: Fluid

Colour: Colourless

· **Odour:** Characteristic· **Change in condition**

Melting point/Melting range: -34°C

Boiling point/Boiling range: 137°C

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· <b>Flash point:</b>	30°C
· <b>Ignition temperature:</b>	390°C
· <b>Self igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b>	
Lower:	1.1 Vol %
Upper:	7.0 Vol %
· <b>Vapour pressure at 20°C:</b>	6.7 hPa
· <b>Density:</b>	Not determined
· <b>Solubility in / Miscibility with Water at 20°C:</b>	0.2 g/l
· <b>Solvent content:</b>	
Organic solvents:	65.0 %
· <b>VOC %:</b>	65.00 %
· <b>VOC g/l:</b>	650.0 g/l
· <b>Solids content:</b>	5.0 %
· <b>9.2. Other information</b>	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:**

· **LD/LC50 values that are relevant for classification:**

<b>1330-20-7 xylene, mixture of isomers</b>		
Oral	LD50	8700 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rbt)
Inhalative	LC50/4 h	6350 mg/l (rat)
<b>84-74-2 dibutyl phthalate</b>		
Oral	LD50	7499 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rbt)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful

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Irritant

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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.

## 14 Transport information

- |   |                      |
|---|----------------------|
| · <b>14.1. UN-Number</b>  |                      |
| · <b>ADR, IMDG, IATA</b>  | 1307                 |
| · <b>14.2. UN proper shipping name</b>  |                      |
| · <b>ADR</b>  | 1307 XYLENES         |
| · <b>IMDG, IATA</b>   | XYLENES              |
| · <b>14.3. Transport hazard class(es)</b>   |                      |
| · <b>ADR</b>  |                      |
|  |                      |
| · <b>Class</b>  | 3 Flammable liquids. |
| · <b>Label</b>  | 3                    |
| <hr style="border-top: 1px dashed #000;"/>  |                      |
| · <b>IMDG, IATA</b>   |                      |
|  |                      |
| · <b>Class</b>  | 3 Flammable liquids. |
| · <b>Label</b>  | 3                    |

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- |   |   |
|---|---|
| · <b>14.4. Packing group</b><br>· <b>ADR, IMDG, IATA</b>  | <b>III</b>  |
| · <b>14.5. Environmental hazards:</b><br>· <b>Marine pollutant:</b>                                   | <b>No</b>   |
| · <b>14.6. Special precautions for user</b><br>· <b>Danger code (Kemler):</b><br>· <b>EMS Number:</b> | <b>Warning: Flammable liquids.</b><br><b>30</b><br><b>F-E,S-D</b> |
| · <b>14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>                | <b>Not applicable.</b>  |
| · <b>Transport/Additional information:</b>  |   |
| · <b>ADR</b><br>· <b>Tunnel restriction code</b>  | <b>D/E</b>  |
| · <b>UN "Model Regulation":</b>   | <b>UN1307, XYLENES, 3, III</b>                                    |

### 15 Regulatory information

- **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Technical instructions (air):**

Class	Share in %
I	2,5-7
NK	60-80

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

84-74-2 dibutyl phthalate

- **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.

- **Relevant phrases**  
H226 Flammable liquid and vapour.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H332 Harmful if inhaled.  
H360Df May damage the unborn child. Suspected of damaging fertility.  
H400 Very toxic to aquatic life.
- **R10** Flammable.
- **R20/21** Harmful by inhalation and in contact with skin.
- **R38** Irritating to skin.
- **R50** Very toxic to aquatic organisms.
- **R61** May cause harm to the unborn child.
- **R62** Possible risk of impaired fertility.

- **Department issuing MSDS:** Product safety department
- **Contact:** +49 6221 13840-35

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

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