Printing date 09/27/2019

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Reviewed on 09/27/2019

1 Identification	
· Product identifier	SERVA
• Trade name: <u>DePeX</u>	serving scientists
• Article number: 18243 • Application of the substance / the mixture Laboratory chemicals	
<ul> <li>Details of the supplier of the safety data sheet</li> <li>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</li> </ul>	mbri
<ul> <li>Information department: Product Safety department Tel.: +49 6221 13840-35</li> <li>Emergency telephone number: Medical Emergency Information in case of poisoning: Poison Information Center Mainz - Phone: +49 (0) 6131 19240 (advisory service in German or English language)</li> </ul>	
2 Hazard(s) identification	
Flam. Liq. 3 H226 Flammable liquid and vapor.	Dosure.
Acute Tox. 4 H312 Harmful in contact with skin.	
Acute Tox. 4 H332 Harmful if inhaled.	
Skin Irrit. 2 H315 Causes skin irritation.	
Eye Irrit. 2A H319 Causes serious eye irritation.	
STOT SE 3 H335 May cause respiratory irritation.	
<ul> <li>Label elements</li> <li>GHS label elements</li> <li>The product is classified and labeled according to the Globally Harmonized System (</li> <li>Hazard pictograms GHS02, GHS07, GHS08</li> <li>Signal word Danger</li> </ul>	GHS).
· Hazard-determining components of labeling:	
xylene	
· Hazard statements	
Flammable liquid and vapor.	
Harmful in contact with skin or if inhaled.	

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Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.
· Precautionary statements
Keep away from heat/sparks/open flames/hot surfaces No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Immediately call a poison center/doctor.
If on skin: Wash with plenty of soap and water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
· Classification system:
· NFPA ratings (scale 0 - 4)
$\begin{array}{c} 1 \\ 2 \\ 0 \\ $
· HMIS-ratings (scale 0 - 4)
HEALTH2FIRE0Fire = 0REACTIVITY0
· Other hazards
· Results of PBT and vPvB assessment
· <b>PBT</b> : PBT - assessment not available.
· <b>vPvB</b> : vPvB - assessment not available.
3 Composition/information on ingredients

· Chemical characterization: Mixtures

• Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

1330-20-7 xylene

60-80%

• Additional information: For the wording of the listed hazard phrases refer to section 16.

### 4 First-aid measures

- · 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:

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

- After skin contact:
- Immediately wash with water and soap and rinse thoroughly. Consult doctor if you feel unwell.
- After eye contact:

Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing. Consult ophthalmologist In case of complaints.

 After swallowing: Wash out mouth. Call a doctor immediately.

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Do not induce vomiting!

- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

## **5** Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:
- $CO_{2}$  extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. • Special hazards arising from the substance or mixture
- Flammable substance, vapours are heavier than air and spread over the floor. Vapours can form flammable and explosive mixtures with air. In case of fire, the following can be released: Carbon monoxide and carbon dioxide
- Advice for firefighters
- **Protective equipment:** Wear self-contained respiratory protective device. Mouth respiratory protective device.

## 6 Accidental release measures

Wear protective clothing.	
Keep away from ignition sources	
Ensure adequate ventilation	
Wear protective equipment. Keep unprotected persons away.	
• Environmental precautions: Do not allow to enter sewers/ surface or ground water.	
• Methods and material for containment and cleaning up:	
Dispose contaminated material as waste according to item 13.	
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).	
Ensure adequate ventilation.	
· Reference to other sections	
See Section 7 for information on safe handling.	
See Section 8 for information on personal protection equipment.	
See Section 13 for disposal information.	
Protective Action Criteria for Chemicals	
• PAC-1:	
1330-20-7 xylene	130 ppm
• PAC-2:	
1330-20-7 xylene	920* ppm
1550-20-7 Xylene	
· PAC-3:	

## 7 Handling and storage

· Handling:

· Precautions for safe handling

*Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.* 

· Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.

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- · 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. Keep receptacle tightly sealed and store in dry conditions.
- Keep receptacle tightly sealed.
- · 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.
- · Control parameters

• Components with limit values that require monitoring at the workplace:

- 1330-20-7 xylene (60-80%)
- PEL Long-term value: 435 mg/m<sup>3</sup>, 100 ppm REL Short-term value: 655 mg/m<sup>3</sup>, 150 ppm
- Long-term value: 655 mg/m<sup>3</sup>, 100 ppm
- TLV Short-term value: 651 mg/m<sup>3</sup>, 150 ppm Long-term value: 434 mg/m<sup>3</sup>, 100 ppm BEI

· Ingredients with biological limit values:

1330-20-7 xylene (60-80%)

BEI 1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids

• Additional information: The lists that were valid during the creation were used as basis.

#### · Exposure controls

- · Personal protective equipment:
- General protective and hygienic measures:
- Keep away from foodstuffs, beverages and feed.
- Store protective clothing separately.
- Immediately remove all soiled and contaminated clothing.
- Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

- Avoid contact with the skin.
- · Breathing equipment:

Short term filter device: Filter A/P2

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

#### · 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

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#### Trade name: DePeX

· 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.

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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

 $\cdot$  For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Nitrile rubber, NBR

- Eye protection: Safety glasses
- **Body protection:** Protective work clothing

#### 9 Physical and chemical properties · Information on basic physical and chemical properties · General Information · Appearance: Form: viscous liquid Color: Colorless *Characteristic* · Odor: · Odor threshold: Not determined. · Change in condition Melting point/Melting range: no information available **Boiling point/Boiling range:** no information available · Flash point: no information available · Flammability (solid, gaseous): Not applicable. no information available · Ignition temperature: no information available · Decomposition temperature: · Auto igniting: no information available · Danger of explosion: no information available · Explosion limits: Lower: no information available no information available Upper: · Vapor pressure: no information available · Density: no information available · Relative density Not determined. · Vapor density Not determined. • Evaporation rate Not determined. · Solubility in / Miscibility with Not miscible or difficult to mix. Water: · Partition coefficient (n-octanol/water): no information available · Viscosity: Dynamic: no information available Kinematic: no information available (Contd. on page 6)

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• Solvent content: Organic solvents: VOC content:

• Other information

60-80 % 60-80 % No further relevant information available.

### **10 Stability and reactivity**

· Reactivity No further relevant informations available

- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions Vapours can form flammable and explosive mixtures with air.
- · Conditions to avoid Avoid high temperatures, flames, sparks
- Incompatible materials: Avoid contact with strong oxidizers.
- Hazardous decomposition products: In case of fire: See Section 5

### **11 Toxicological information**

· Information on toxicological effects

• Acute toxicity:

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

1330-20-7 xylene					
Oral	LD50	8,700 mg/kg (rat)			
	LD50	8,700 mg/kg (rat) 2,000 mg/kg (rbt)			
Inhalative	LC50/4h	6,350 mg/l (rat)			

· 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 internally approved calculation methods for preparations:

Harmful Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

1330-20-7 xylene

#### · NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

## **12 Ecological information**

· Toxicity

- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- $\cdot \textit{Bioaccumulative potential No further relevant information available}.$
- *Mobility in soil* No further relevant information available.

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#### Trade name: DePeX

· Additional	ecological	information:
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• General notes:

Do not allow product to reach ground water, water course or sewage system. Water hazard class 2 (Self-assessment): hazardous for water

• Results of PBT and vPvB assessment

• *PBT:* Not applicable.

- **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

## **13 Disposal considerations**

### · Waste treatment methods

- · Recommendation:
- Disposal must be made according to official regulations. Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- · Uncleaned packagings:
- · Recommendation:

Disposal of uncleaned packagings must be made according to official regulations in the same manner as the product.

## 14 Transport information

· UN-Number · DOT, ADR, IMDG, IATA	UN1307	
<ul> <li>UN proper shipping name</li> <li>DOT, IATA</li> <li>ADR</li> <li>IMDG</li> </ul>	Xylenes solution 1307 XYLENES SOLUTION XYLENES SOLUTION	
· Transport hazard class(es)		
· DOT		
· Class · Label	3 Flammable liquids 3	
· ADR, IMDG, IATA		
Class Label	3 Flammable liquids 3	
· Packing group · DOT, ADR, IMDG, IATA	111	
· Environmental hazards: · Marine pollutant:	No	
<ul> <li>Special precautions for user</li> <li>Danger code (Kemler):</li> <li>EMS Number:</li> </ul>	Warning: Flammable liquids 30 F-E,S-D	
	(Co	ntd. on page 8

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· Stowage Category	Α
• Transport in bulk according to Annex II MARPOL73/78 and the IBC Code	of Not applicable.
· Transport/Additional information:	
· ADR · Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1307 XYLENES SOLUTION, 3, III

## **15 Regulatory information**

#### · Safety, health and environmental regulations/legislation specific for the substance or mixture

•	Section	355	(extremel	y hazard	ous sul	bstances)	):
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None of the ingredients is listed.

• Section 313 (Specific toxic chemical listings): All ingredients are listed.

· TSCA (Toxic Substances Control Act):

1330-20-7 xylene

· Hazardous Air Pollutants

All ingredients are listed.

· Proposition 65

None of the ingredients is listed.

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

### · Cancerogenity categories

· EPA (Environmental Protection Agency)

1330-20-7 xylene

• TLV (Threshold Limit Value established by ACGIH)

1330-20-7 xylene

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

*The product is classified and labeled according to the Globally Harmonized System (GHS).* • *Hazard pictograms GHS02, GHS07, GHS08* 

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#### Trade name: DePeX

(Contd. of page 8) · Signal word Danger · Hazard-determining components of labeling: xylene · Hazard statements Flammable liquid and vapor. Harmful in contact with skin or if inhaled. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. · Precautionary statements Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: Immediately call a poison center/doctor. If on skin: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. · 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 SDS: Product safety department · Contact: +49 6221 13840-35 • Date of preparation / last revision 09/27/2019 / 6 · Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation 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 bw: body weight ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Liq. 3: Flammable liquids - Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2 Asp. Tox. 1: Aspiration hazard – Category 1 • \* **Data compared to the previous version altered.**  (Contd. of page 9)

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