Printing date 05/03/2018

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Identification	
Product identifier	SERVA
Trade name: <u>Dextran 500</u>	serving scientists
Article number: 18696 CAS Number: 9004-54-0 EC number: 232-677-5 Application of the substance / the mixture Laborat	tory chemicals
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 Emergency telephone number: Medical Emergency Information in case of poisonin Poison Information Center Mainz - Phone: +49 (0) (advisory service in German or English language)	nt Tel.: +49 6221 13840-35 ng:
93.	
Hazard(s) identification	
Classification of the substance or mixture The substance is not classified according to the Glo	obally Harmonized System (GHS).
Label elements GHS label elements Void Hazard pictograms Void Signal word Void Hazard statements Void Classification system: NFPA ratings (scale $0 - 4$) Health = 0 Fire = 0 Reactivity = 0	
HMIS-ratings (scale 0 - 4)	

(Contd. on page 2)

Printing date 05/03/2018

Reviewed on 09/24/2009

Trade name: Dextran 500

(Contd. of page 1)

3 Composition/information on ingredients

- · Chemical characterization: Substances
- CAS No. Description 9004-54-0 Dextran
- Identification number(s)
- EC number: 232-677-5
- · Description:
- **MW:** ca. 500000

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately rinse with water.
- 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. Seek medical advice if discomfort occurs.
- 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.
- \cdot Special hazards arising from the substance or mixture
- 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.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- *Methods and material for containment and cleaning up: Pick up mechanically. Dispose contaminated material as waste according to item 13.*
- **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.

7 Handling and storage

· Handling:

• **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace. Prevent formation of dust.

(Contd. on page 3)

US

Printing date 05/03/2018

Reviewed on 09/24/2009

Trade name: Dextran 500

(Contd. of page 2) • Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Store in dry conditions.
- Protect from humidity and water.
- 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: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Suitable respiratory protective device recommended.
- 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.

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.

- \cdot For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:
- Natural rubber, NR Nitrile rubber, NBR Butyl rubber, BR
- Eye protection: Safety glasses
- · Body protection: Protective work clothing

9 Physical and chemical properties

Information on basic physical an General Information	u chemicul properties	
Appearance:		
Form:	Powder	
Color:	white to off-white	
Odor:	Phenol-like	
pH-value (10 g/l) at 20 °C (68 °I	F): 4.0 - 7.0	
Change in condition		
Melting point/Melting range:	Undetermined.	
		(Contd. on page

Printing date 05/03/2018

Reviewed on 09/24/2009

Trade name: Dextran 500

	(Contd. of page 3)
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: Other information 	Soluble. 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 No further relevant informations available.
- · Conditions to avoid heat, flames and sparks
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: In case of fire: See Section 5

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. The substance is not subject to classification.

· Carcinogenic categories

- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- *Mobility in soil* No further relevant information available.
- · Additional ecological information:
- · General notes:
- Water hazard class 2 (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.

- Results of PBT and vPvB assessment
- **PBT:** Not applicable.

(Contd. on page 5)

(Contd. of page 4)

Safety Data Sheet acc. to OSHA HCS

Printing date 05/03/2018

Reviewed on 09/24/2009

Trade name: Dextran 500

· vPvB: Not applicable.

• Other adverse effects No further relevant information available.

13 Disposal considerations

• 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.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

Transport information	
UN-Number DOT, ADR, ADN, IMDG, IATA	Void
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	Void
Transport hazard class(es)	
DOT, ADN Class	Void
ADR, IMDG, IATA Class Label	Void -
Packing group DOT, ADR, IMDG, IATA	Void
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
UN "Model Regulation":	Void

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Section 355 (extremely hazardous substances): Substance is not listed.
- Section 313 (Specific toxic chemical listings): Substance is not listed.
- · TSCA (Toxic Substances Control Act): Substance is not listed.
- · Proposition 65 Substance is not listed.
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Cancerogenity categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- TLV (Threshold Limit Value established by ACGIH) Substance is not listed.

(Contd. on page 6)

US

(Contd. of page 5)

Safety Data Sheet acc. to OSHA HCS

Printing date 05/03/2018

Reviewed on 09/24/2009

Trade name: Dextran 500

· NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void

· 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 05/03/2018 / 2

• 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 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 CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

• * Data compared to the previous version altered.

TLV: Threshold Limit Value