	Version number 5 (replaces version 4)	Revision: 30.08.202
SECTION 1: Identification	of the substance/mixture and of the compa-	ny/undertaking
1.1 Product identifier		SERVA
Trade name: <u>Tris buffer pH</u>	7.5, 1 M solution	serving scientists
No further relevant information	f the substance or mixture and uses advised aga on available. / the mixture: Laboratory chemicals	inst
1.3 Details of the supplier of Manufacturer/Supplier: SERVA Electrophoresis Gmbl Carl-Benz-Str. 7 D-69115 Heidelberg Tel.: +49 6221 13840-0 FAX: +49 6221 13840-10 msds.info@serva.de		Grino.
1.4 Emergency telephone nur Medical emergency information	on in case of poisoning: 11nz - Phone: +49 (0) 6131 19240	
	\sim	
SECTION 2: Hazards iden	tification	
	tance or mixture egulation (EC) No 1272/2008: according to the GB CLP regulation.	
·····		
2.2 Label elements Labelling according to Regul Hazard pictograms: Void Signal word: Void Hazard statements: Void 2.3 Other hazards Results of PBT and vPvB ass PBT: PBT - Assessment not a vPvB: vPvB - Assessment not Determination of endocrine-o	vailable.	tion available.
2.2 Label elements Labelling according to Regul Hazard pictograms: Void Signal word: Void Hazard statements: Void 2.3 Other hazards Results of PBT and vPvB ass PBT: PBT - Assessment not a vPvB: vPvB - Assessment not Determination of endocrine-o	essment: vailable. available. lisrupting properties No further relevant informa	tion available.
2.2 Label elements Labelling according to Regul Hazard pictograms: Void Signal word: Void Hazard statements: Void 2.3 Other hazards Results of PBT and vPvB ass PBT: PBT - Assessment not a vPvB: vPvB - Assessment not Determination of endocrine-o SECTION 3: Composition	essment: vailable. available. lisrupting properties No further relevant informa /information on ingredients	tion available.
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2.2 Label elements Labelling according to Regul Hazard pictograms: Void Signal word: Void Hazard statements: Void 2.3 Other hazards Results of PBT and vPvB ass PBT: PBT - Assessment not a vPvB: vPvB - Assessment not Determination of endocrine-o SECTION 3: Composition, 3.2 Mixtures Description: aqueous solution Dangerous components: Void Additional information the product contains no su	essment: vailable. available. lisrupting properties No further relevant information (information on ingredients (information on ingredients) (information on ingredients) (information on ingredients) (information on ingredients) (information on ingredients) (information on ingredients) (information on ingredients)	
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Trade name: Tris buffer pH 7.5, 1 M solution

- After skin contact:
- Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor. *After eye contact:*

Rinse opened eye for several minutes with running water. Remove contact lenses, if possible, and continue rinsing. In case of complaints, consult an ophthalmologist.

- After swallowing: Rinse out mouth. In case of complaints, consult a 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.*

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- · Suitable extinguishing agents:
- CO_2 , 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 formed, but not limited to: Carbon monoxide and carbon dioxide Nitrogen oxides (NOx)
- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
 Ensure adequate ventilation
- · 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 section 13.
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- 6.4 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.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling: No special measures required.
- · Information about protection against explosions and fires: The product is not flammable
- · 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: Not required.
- Further information about storage conditions: Store containers tightly closed and dry.
- 7.3 Specific end use(s): No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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Trade name: Tris buffer pH 7.5, 1 M solution

· Additional information: The lists that we	(Contd. of page re valid during the creation were used as basis.
· 8.2 Exposure controls	
• Appropriate engineering controls: No fur	rthar data: see section 7
· Individual protection measures, such as	
\cdot General protective and hygienic measures	
Keep away from foodstuffs, beverages and	
Store protective clothing separately.	u jeeu.
Immediately remove all soiled and contan	ningted clothing
Avoid contact with the eyes and skin.	ninalea cioning
Wash hands before breaks and at the end	of work
• Breathing equipment: Suitable respirator	0
• Hand protection:	
	e and resistant to the product/ the substance/ the preparation.
	to the glove material can be given for the product/ the preparatio
the chemical mixture.	б
	nsideration of the penetration times, rates of diffusion and th
degradation	3 1 1 1 1 1 1 1 1 1 1
• Material of gloves:	
	es not only depend on the material, but also on further marks
quality and varies from manufacturer to n	
	es not only depend on the material, but also on further marks
quality and varies from manufacturer	to manufacturer. As the product is a preparation of sever
	naterial can not be calculated in advance and has therefore to
checked prior to the application.	·
• Penetration time of glove material:	
	und out by the manufacturer of the protective gloves and has to
	und out by the manufacturer of the protective gloves and has to
The exact break trough time has to be for observed.	und out by the manufacturer of the protective gloves and has to a num of 15 minutes gloves made of the following materials a
The exact break trough time has to be for observed.	
The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR	
The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NBR	
The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NBR • Eye/face protection: Safety glasses	num of 15 minutes gloves made of the following materials a
The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NBR	num of 15 minutes gloves made of the following materials a
The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NBR • Eye/face protection: Safety glasses	num of 15 minutes gloves made of the following materials a
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The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NBR • Eye/face protection: Safety glasses	num of 15 minutes gloves made of the following materials a g.
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The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NBR • Eye/face protection: Safety glasses • Body protection: Protective work clothing SECTION 9: Physical and chemical p • 9.1 Information on basic physical and ch • General Information: • Physical state: • Colour: • Odour:	num of 15 minutes gloves made of the following materials a g. properties hemical properties Fluid
The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NBR • Eye/face protection: Safety glasses • Body protection: Protective work clothing SECTION 9: Physical and chemical p • 9.1 Information on basic physical and ch • General Information: • Physical state: • Colour:	num of 15 minutes gloves made of the following materials a g. properties hemical properties Fluid Colourless
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The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NBR • Eye/face protection: Safety glasses • Body protection: Protective work clothing SECTION 9: Physical and chemical p • 9.1 Information on basic physical and ch • General Information: • Physical state: • Colour: • Odour threshold: • Melting point/freezing point: • Boiling point or initial boiling point and	num of 15 minutes gloves made of the following materials a g. properties hemical properties Fluid Colourless Odourless No information available No information available
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The exact break trough time has to be for observed. For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NR Eye/face protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and ch General Information: Physical state: Colour: Odour: Odour threshold: Melting point/freezing point: Boiling point or initial boiling point and range: Flammability: Lower and upper explosion limit:	num of 15 minutes gloves made of the following materials a g. properties hemical properties Fluid Colourless Odourless No information available No information available boiling >100 °C product is not combustible. No information available
The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NR • Eye/face protection: Safety glasses • Body protection: Protective work clothing • SECTION 9: Physical and chemical p • 9.1 Information on basic physical and ch • General Information: • Physical state: • Colour: • Odour: • Odour threshold: • Melting point/freezing point: • Boiling point or initial boiling point and range: • Flammability: • Lower and upper explosion limit: • Lower: • Upper:	num of 15 minutes gloves made of the following materials a g. properties themical properties Fluid Colourless Odourless No information available No information available >100 °C product is not combustible. No information available
The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NR • Eye/face protection: Safety glasses • Body protection: Protective work clothing • SECTION 9: Physical and chemical p • 9.1 Information on basic physical and ch • General Information: • Physical state: • Colour: • Odour: • Odour threshold: • Melting point/freezing point: • Boiling point or initial boiling point and range: • Flammability: • Lower and upper explosion limit: • Lower: • Upper: • Flash point:	num of 15 minutes gloves made of the following materials a g. properties femical properties Fluid Colourless Odourless Odourless No information available No information available >100 °C product is not combustible. No information available
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The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NBR • Eye/face protection: Safety glasses • Body protection: Protective work clothing SECTION 9: Physical and chemical p • 9.1 Information on basic physical and ch • General Information: • Physical state: • Colour: • Odour: • Odour threshold: • Melting point/freezing point: • Boiling point or initial boiling point and range: • Flammability: • Lower and upper explosion limit: • Lower: • Upper: • Flash point: • Decomposition temperature: • pH at 20 °C:	num of 15 minutes gloves made of the following materials a g. properties femical properties Fluid Colourless Odourless Odourless No information available No information available >100 °C product is not combustible. No information available
The exact break trough time has to be for observed. • For the permanent contact of a maxim suitable: Natural rubber, NR Nitrile rubber, NBR • Eye/face protection: Safety glasses • Body protection: Protective work clothing SECTION 9: Physical and chemical p • 9.1 Information on basic physical and ch • General Information: • Physical state: • Colour: • Odour threshold: • Melting point/freezing point: • Boiling point or initial boiling point and range: • Flammability: • Lower and upper explosion limit: • Lower: • Upper: • Flash point: • Decomposition temperature:	num of 15 minutes gloves made of the following materials a g. properties femical properties Fluid Colourless Odourless No information available No information available $>100 \ ^{\circ}C$ product is not combustible. No information available

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	(Contd. of page 3)
· Solubility:	
· Water:	Fully miscible
· Partition coefficient n-octanol/water (log value):	No information available
· Vapour pressure:	No information available
· Density and/or relative density:	
· Density:	No information available
· Relative density:	No information available
· 9.2 Other information	
· Appearance:	
· Form:	Solution
• Important information on protection of health and environment, and on safety:	1
· Explosive properties:	Product does not present an explosion hazard.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity: No further relevant information 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 information available.
- 10.4 Conditions to avoid: No further relevant information available.
- · 10.5 Incompatible materials: Avoid contact with: strong oxidizers, strong bases
- · 10.6 Hazardous decomposition products: In case of fire: see section 5

SECTION 11: Toxicological information

· 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

· Acute toxicity: Based on available data, the classification criteria are not met.

- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- Serious eye damage/irritation: Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- · Reproductive toxicity: Based on available data, the classification criteria are not met.
- · STOT-single exposure: Based on available data, the classification criteria are not met.
- · STOT-repeated exposure: Based on available data, the classification criteria are not met.
- · Aspiration hazard: Based on available data, the classification criteria are not met.
- 11.2 Information on other hazards:
- · Endocrine disrupting properties: No relevant information available

SECTION 12: Ecological information

- · 12.1 Toxicity:
- $\cdot \textit{Aquatic toxicity: No further relevant information available.}$
- \cdot 12.2 Persistence and degradability: No further relevant information available.
- 12.3 Bioaccumulative potential: No further relevant information available.
- 12.4 Mobility in soil: No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment:
- **PBT:** PBT assessment not available.
- · **vPvB**: vPvB assessment not available.

• 12.6 Endocrine disrupting properties: For information on endocrine disrupting properties see section 11.

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- \cdot 12.7 Other adverse effects:
- \cdot Additional ecological information:
- General notes:

Do not allow product to reach ground water, water course or sewage system.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- Recommendation Dispose of in accordance with official regulations.
- · Uncleaned packagings:
- · Recommendation:

Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.

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

SECTION 14: 1	Transport information

· 14.1 UN number or ID number · ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA · Class:	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
• 14.7 Maritime transport in bulk according to IMO instruments Not applicable.	
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN ''Model Regulation'':	Void

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

• Named dangerous substances - ANNEX I None of the ingredients is listed.

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

• Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

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· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

• Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· National regulations:

- Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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 previous version: 30.10.2018
- Version number of previous version: 4
- 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 (UK REACH)

vPvB: very persistent, very bioaccumulative substance (UK REACH)

- UK REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
- GB CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

PBT: Persistent, Bioaccumulative and Toxic

 $vPvB: very \ Persistent \ and \ very \ Bioaccumulative$

1B