03.05.2018	Kit Components
Product code	Description
43361	SDS Gel Kit 15 % 25S
Components:	
43852	SDS Gels 15% 25S
43383	Buffer Kit for 1D SDS Gels

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SECTION 1: Identification of	of the substance/mixture and of the comp	oany/undertaking
· 1.1 Product identifier		
· Trade name: <u>SDS Gels 15% 25</u>	<u>55</u>	serving scientists
No further relevant information	the substance or mixture and uses advised a g available. he mixture Gels for electrophoresis	gainst
 1.3 Details of the supplier of the supplier. 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 	e safety data sheet	GMO
• Information department: Produ • 1.4 Emergency telephone numb Medical Emergency Information Poison Information Center Main (advisory service in German or	n in case of poisoning: nz - Phone: +49 (0) 6131 19240	35
SECTION 2: Hazards identi	fication	
 2.1 Classification of the substant Classification according to Reg The product is not classified according 2.2 Label elements Labelling according to Regulat Hazard pictograms Void Signal word Void Hazard statements Void 2.3 Other hazards Results of PBT and vPvB asses PBT: PBT - assessment not available vPvB: vPvB - assessment not available 	rulation (EC) No 1272/2008 cording to the CLP regulation. tion (EC) No 1272/2008 Void sment ilable.	
SECTION 3: Composition/ir	nformation on ingredients	
 3.2 Chemical characterisation: Description: Polyacrylamidegel, crosslinkea 0,2% free acrylamide. Dangerous components: Void 	<i>Mixtures</i> I with bisacrylamide, prepared between two	polyester sheets. Contains 0,1-
SECTION 4: First aid measu	ures	
• After skin contact Immediately • After eye contact	s ures ir; consult doctor in case of complaints. wash with water and soap and rinse thorough inutes under running water. Remove present c	
	almologist In case of complaints.	· ·

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Trade name: SDS Gels 15% 25S

- After swallowing Drink copious amounts of water and provide fresh air. Call for doctor immediately.
- 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: Nitrogen oxides (NOx)*
- Carbon monoxide and carbon dioxide
- 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- · Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 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: Pick up mechanically.
- Dispose contaminated material as waste according to item 13.
- **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: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Store in dry conditions.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 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:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.

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Trade name: SDS Gels 15% 25S

	(Contd. of page 2
8.2 Exposure controls	
Personal protective equipment	
General protective and hygienic measure	
Keep away from foodstuffs, beverages and	
Immediately remove all soiled and contan	
Wash hands before breaks and at the end	of work.
Store protective clothing separately.	
Breathing equipment: Suitable respirator	ry protective device recommended.
Protection of hands: Neoprene gloves	
PVC gloves	
Protective gloves.	
	e and resistant to the product/ the substance/ the preparation.
	to the glove material can be given for the product/ the preparation
the chemical mixture.	0 0 0 1 11
Selection of the glove material on con	nsideration of the penetration times, rates of diffusion and th
degradation	
Material of gloves	
quality and varies from manufacturer substances, the resistance of the glove n checked prior to the application.	es not only depend on the material, but also on further marks of to manufacturer. As the product is a preparation of severa naterial can not be calculated in advance and has therefore to b
Penetration time of glove material	
	und out by the manufacturer of the protective gloves and has to b
observed.	num of 15 minutos cloues made of the following materials as
For the permanent contact of a maxim suitable:	num of 15 minutes gloves made of the following materials ar
Nitrile rubber, NBR	
,	
Natural rubber, NR	
	g.
Natural rubber, NR Eye protection: Safety glasses	g.
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing	~
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p	properties
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and chemical p	properties
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and ch General Information	properties
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p	properties
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and ch General Information Appearance:	properties hemical properties
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour:	properties hemical properties Gel
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour:	properties hemical properties Gel Colourless
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour: Change in condition	properties hemical properties Gel Colourless
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour: Change in condition Melting point/freezing point:	properties hemical properties Gel Colourless Odourless undetermined
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour: Change in condition Melting point/freezing point: Initial boiling point and boiling range:	properties hemical properties Gel Colourless Odourless undetermined undetermined
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical f 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point:	properties hemical properties Gel Colourless Odourless undetermined
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Self igniting:	properties hemical properties Gel Colourless Odourless undetermined undetermined Not applicable
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Self igniting: Explosive properties:	properties hemical properties Gel Colourless Odourless undetermined undetermined Not applicable Product is not selfigniting.
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Self igniting: Explosive properties: Density:	properties hemical properties Gel Colourless Odourless undetermined undetermined Not applicable Product is not selfigniting. Product does not present an explosion hazard.
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point: Self igniting: Explosive properties: Density: Solubility in / Miscibility with	properties hemical properties Gel Colourless Odourless undetermined undetermined Not applicable Product is not selfigniting. Product does not present an explosion hazard. Not determined

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Trade name: SDS Gels 15% 25S

• 9.2 Other information

No further relevant information available.

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 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: Carbon monoxide and carbon dioxide Nitrogen oxides (NOx)

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- 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.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- · 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.
- Additional ecological information:

· General notes:

Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water. Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely 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.

SECTION 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.

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· Uncleaned packagings:

• *Recommendation: Disposal must be made according to official regulations.*

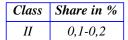
SECTION 14: Transport information	
14.1 UN-Number ADR, ADN, IMDG, IATA	Void
14.2 UN proper shipping name ADR, ADN, IMDG, IATA	Void
14.3 Transport hazard class(es)	
ADR, IMDG, IATA Class Label	Void
ADN/R Class:	- Void
14.4 Packing group ADR, IMDG, IATA	Void
14.5 Environmental hazards: Marine pollutant:	No
14.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Anne. Marpol and the IBC Code	x II of Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
ADR Transport category	-
UN ''Model Regulation'':	Void

SECTION 15: Regulatory information

• 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture • REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 60

· National regulations

• Technical instructions (air):



• Water hazard class: Water danger class 3 (Self-assessment): extremely 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

· 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)

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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

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

• * Data compared to the previous version altered.

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SECTION 1: Identification of	of the substance/mixture and of the co	mpany/undertaking
• 1.1 Product identifier		
• Trade name: SDS Anode buffer	r (blue)	
No further relevant information	the substance or mixture and uses advised available. he mixture Laboratory chemicals	
 1.3 Details of the supplier of the 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 	e safety data sheet	Schlo.
 Information department: Produce I.4 Emergency telephone numbers Medical Emergency Information Poison Information Center Main (advisory service in German or F 	n in case of poisoning: nz - Phone: +49 (0) 6131 19240	40-35
	0	
SECTION 2: Hazards identij	fication	
The product is not classified acc • 2.2 Label elements • Labelling according to Regulate • Hazard pictograms Void • Signal word Void • Hazard statements Void • 2.3 Other hazards • Results of PBT and vPvB assess • PBT: PBT - assessment not avail • vPvB: vPvB - assessment not avail	ion (EC) No 1272/2008 Void sment ilable.	
SECTION 3: Composition/in	formation on ingredients	
• 3.2 Chemical characterisation: • Description: Mixture of the subs	Mixtures stances listed below with harmless addition	ns.
· Dangerous components:		
CAS: 77-86-1 trometamo EINECS: 201-064-4	l () Skin Irrit. 2, H.	315; Eye Irrit. 2, H319 5-15%
· Regulation (EC) No 648/2004 o	on detergents / Labelling for contents	· · ·
anionic surfactants		<5%
• Additional information For the	wording of the listed hazard phrases refer	r to section 16.
SECTION 4: First aid measu	ures	
SECTION 4: First aid measu • 4.1 Description of first aid meas • General information No special	sures	

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Trade name: SDS Anode buffer (blue)

- · After inhalation Supply fresh air; consult doctor in case of complaints.
- After skin contact Immediately wash with water and soap and rinse thoroughly.
- · 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.
- **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 No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 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. Dilute with plenty of 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.
- 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 Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires: Keep ignition sources away Do not smoke.
- · 7.2 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 cool, dry conditions in well sealed receptacles.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 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:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.

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Trade name: SDS Anode buffer (blue)

8.2 Exposure controls	
Personal protective equipment	
General protective and hygienic meas	
Keep away from foodstuffs, beverages	and feed.
Store protective clothing separately.	
Immediately remove all soiled and con	
Wash hands before breaks and at the e	na of work.
Avoid contact with the eyes and skin. Breathing equipment:	
Short term filter device:	
Filter P2.	
Protection of hands:	
	able and resistant to the product/ the substance/ the preparation.
	on to the glove material can be given for the product/ the preparation
the chemical mixture.	0 0 1 1 1
Selection of the glove material on a	consideration of the penetration times, rates of diffusion and th
degradation	
Material of gloves	
The selection of the suitable gloves of	does not only depend on the material, but also on further marks o
quality and varies from manufacturer t	•
	does not only depend on the material, but also on further marks
	rer to manufacturer. As the product is a preparation of sever
	e material can not be calculated in advance and has therefore to l
checked prior to the application.	
Penetration time of glove material	
-	found out by the manufacturer of the protective gloves and has to be
observed.	
	ximum of 15 minutes gloves made of the following materials ar
······································	
suitable:	
Natural rubber, NR	
	hing.
Natural rubber, NR Eye protection: Safety glasses	hing.
Natural rubber, NR Eye protection: Safety glasses	·
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemica 9.1 Information on basic physical and	al properties
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information	al properties
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance:	al properties I chemical properties
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form:	al properties I chemical properties Fluid
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour:	al properties I chemical properties Fluid Blue
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour:	al properties I chemical properties Fluid Blue Recognisable
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour:	al properties I chemical properties Fluid Blue
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value at 20 °C:	al properties A chemical properties Fluid Blue Recognisable Not determined.
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value at 20 °C: Change in condition	al properties A chemical properties Fluid Blue Recognisable Not determined. 8
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value at 20 °C: Change in condition Melting point/freezing point:	al properties al chemical properties Fluid Blue Recognisable Not determined. 8 undetermined
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value at 20 °C: Change in condition	al properties al chemical properties Fluid Blue Recognisable Not determined. 8 undetermined
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value at 20 °C: Change in condition Melting point/freezing point: Initial boiling point and boiling rang Flash point:	al properties al chemical properties Fluid Blue Recognisable Not determined. 8 undetermined ge: undetermined Not applicable
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value at 20 °C: Change in condition Melting point/freezing point: Initial boiling point and boiling rang Flash point: Flammability (solid, gaseous)	al properties A chemical properties Fluid Blue Recognisable Not determined. 8 undetermined ge: undetermined
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value at 20 °C: Change in condition Melting point/freezing point: Initial boiling point and boiling rang Flash point: Flammability (solid, gaseous) Ignition temperature:	al properties A chemical properties Fluid Blue Recognisable Not determined. 8 undetermined ge: undetermined Not applicable Not applicable.
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value at 20 °C: Change in condition Melting point/freezing point: Initial boiling point and boiling rang Flash point: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature:	al properties al chemical properties Fluid Blue Recognisable Not determined. 8 undetermined ge: undetermined Not applicable Not applicable. Not determined.
Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work cloth SECTION 9: Physical and chemical 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value at 20 °C: Change in condition Melting point/freezing point: Initial boiling point and boiling rang Flash point: Flammability (solid, gaseous) Ignition temperature:	al properties al chemical properties Fluid Blue Recognisable Not determined. 8 undetermined ge: undetermined Not applicable Not applicable.

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Trade name: SDS Anode buffer (blue)

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· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not determined.
· Density:	Not determined
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
· VOC %:	0.00 %
· Solids content:	6.0 %
• 9.2 Other information	No further relevant information available.

SECTION 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: No further relevant information available.
- 10.6 Hazardous decomposition products: No further relevant informations available.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- Acute toxicity Based on available data, the classification criteria are not met.
- Primary irritant effect:
- · 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.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- \cdot Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- $\cdot \textit{Reproductive toxicity Based on available data, the classification criteria are not met.}$
- · 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.

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SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 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.
- 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.
- · 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.

SECTION 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. Disposal must be made according to official regulations.

- · Uncleaned packagings:
- · Recommendation:

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

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

· 14.1 UN-Number	X 7 · 1	
· ADR, IMDG, IATA	Void	
\cdot 14.2 UN proper shipping name		
· ADR, IMDG, IATA	Void	
· 14.3 Transport hazard class(es)		
· ADR, IMDG, IATA		
· Class	Void	
· Label	-	
· 14.4 Packing group		
· ADR, IMDĞ, IATA	Void	
· 14.5 Environmental hazards:		
· Marine pollutant:	No	
· 14.6 Special precautions for user	Not applicable.	
· 14.7 Transport in bulk according to Ann	ex II of	
Marpol and the IBC Code	Not applicable.	

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Trade name: SDS Anode buffer (blue)

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SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · National regulations
- 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.

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.

· Relevant phrases

H315 Causes skin irritation. H319 Causes serious eye irritation.

· Department issuing SDS: Product safety department

· Contact: +49 6221 13840-35

· 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 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 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 * Data compared to the previous version altered.

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*

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SECTION 1: Identification of	f the substance/mixture and of the co	mpany/undertaking
· 1.1 Product identifier		
• Trade name: SDS Cathode buff	er (white)	SERVA serving scientists
• Article number: 43802 • 1.2 Relevant identified uses of the No further relevant information of the substance / the substance		l against
• 1.3 Details of the supplier of the • 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	e safety data sheet	Saulo
• Information department: Product • 1.4 Emergency telephone numb Medical Emergency Information Poison Information Center Main (advisory service in German or P	in case of poisoning: z - Phone: +49 (0) 6131 19240	10-35
SECTION 2: Hazards identif	0	
Classification according to Regu The product is not classified acc 2.2 Label elements Labelling according to Regulati Hazard pictograms Void Signal word Void Hazard statements Void 2.3 Other hazards Results of PBT and vPvB assess PBT: PBT - assessment not avai vPvB: vPvB - assessment not avai	ording to the CLP regulation. on (EC) No 1272/2008 Void ment lable.	
SECTION 3: Composition/in	formation on ingredients	
· 3.2 Chemical characterisation:		ns.
· Dangerous components:		
CAS: 77-86-1 trometamo EINECS: 201-064-4	Skin Irrit. 2, H	H315; Eye Irrit. 2, H319 1-3%
• Regulation (EC) No 648/2004 of	n detergents / Labelling for contents	
anionic surfactants • Additional information For the	wording of the listed hazard phrases refer	<5% to section 16.
SECTION 4: First aid measu	res	
• 4.1 Description of first aid meas • General information No special		
		(Contd. on page 2

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Trade name: SDS Cathode buffer (white)

- · After inhalation Supply fresh air; consult doctor in case of complaints.
- After skin contact Immediately wash with water and soap and rinse thoroughly.
- · 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.
- **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
- *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 formed, but not limited to: Carbon monoxide and carbon dioxide Nitrogen oxides (NOx)
- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 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. Dilute with plenty of 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.
- 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 Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires: No special measures required.
- · 7.2 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 cool, dry conditions in well sealed receptacles.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

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Trade name: SDS Cathode buffer (white)

monitored at the workplace.	
Additional information: The lists that we	re valid during the creation were used as basis.
8.2 Exposure controls	
Personal protective equipment	
General protective and hygienic measure	
The usual precautionary measures should	be adhered to when handling chemicals.
Breathing equipment: Short term filter device:	
Filter P2.	
Protection of hands:	
	e and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation t	to the glove material can be given for the product/ the preparatio
the chemical mixture.	
	sideration of the penetration times, rates of diffusion and th
degradation Material of gloves	
The selection of the suitable gloves doe	es not only depend on the material, but also on further marks
quality and varies from manufacturer to m	
	es not only depend on the material, but also on further marks to manufacturer. As the product is a preparation of sever
	naterial can not be calculated in advance and has therefore to l
checked prior to the application.	iaieriai can noi de caiculatea in davance ana nas inerejore lo t
Penetration time of glove material	
reneuration time of shove material	
	und out by the manufacturer of the protective aloves and has to l
The exact break trough time has to be for	und out by the manufacturer of the protective gloves and has to l
The exact break trough time has to be for observed.	und out by the manufacturer of the protective gloves and has to l
The exact break trough time has to be for observed. For the permanent contact of a maxim	und out by the manufacturer of the protective gloves and has to l num of 15 minutes gloves made of the following materials an
The exact break trough time has to be for observed. For the permanent contact of a maxim suitable:	
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 Eye protection: Safety glasses	num of 15 minutes gloves made of the following materials an
The exact break trough time has to be for observed. For the permanent contact of a maxim suitable: Natural rubber, NR Eye 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 Eye protection: Safety glasses Body protection: Protective work clothing	num of 15 minutes gloves made of the following materials as
The exact break trough time has to be for observed. For the permanent contact of a maxim suitable: Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing	num of 15 minutes gloves made of the following materials as
The exact break trough time has to be for observed. For the permanent contact of a maxim suitable: Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p	num of 15 minutes gloves made of the following materials as 3. properties
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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 Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and ch General Information	num of 15 minutes gloves made of the following materials as 3. properties
The exact break trough time has to be for observed. For the permanent contact of a maxim suitable: Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form:	num of 15 minutes gloves made of the following materials a. 3. properties nemical properties Fluid
The exact break trough time has to be for observed. For the permanent contact of a maxim suitable: Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour:	num of 15 minutes gloves made of the following materials a. 3. properties nemical properties Fluid Colourless
The exact break trough time has to be for observed. For the permanent contact of a maxim suitable: Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour:	num of 15 minutes gloves made of the following materials a. 3. properties memical properties Fluid Colourless Odourless
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The exact break trough time has to be for observed. For the permanent contact of a maximus suitable: Natural rubber, NR Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and che General Information Appearance: Form: Colour: Odour: Odour threshold:	num of 15 minutes gloves made of the following materials an g. properties memical properties Fluid Colourless Odourless
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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 Eye protection: Safety glasses Body protection: Protective work clothing SECTION 9: Physical and chemical p 9.1 Information on basic physical and ch General Information Appearance: Form: Colour: Odour: Odour threshold: pH-value at 20 °C: Change in condition Melting point/freezing point: Initial boiling point and boiling range: Flash point:	aum of 15 minutes gloves made of the following materials and groperties and groperties and groperties are and groperties are and groperties are

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Trade name: SDS Cathode buffer (white)

Self igniting:	(Contd. of page <i>Product is not selfigniting</i> .
Explosive properties:	Product does not present an explosion hazard.
	Trouver does not present un expression nazara.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not determined.
Density:	Not determined
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Fully miscible
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
Solvent content:	
Organic solvents:	0.0 %
<i>VOC</i> %:	0.00 %
Solids content:	20.0 %
9.2 Other information	No further relevant information available.

SECTION 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: No further relevant information available.
- 10.6 Hazardous decomposition products: In case of fire: See Section 5

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- · 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.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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.

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SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 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.
- Additional ecological information:

· General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow product to reach ground water, water course or sewage system.

- · 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.

SECTION 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. Disposal must be made according to official regulations.

- · Uncleaned packagings:
- · Recommendation:

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

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

14.1 UN-Number		
ADR, ADN, IMDG, IATA	Void	
14.2 UN proper shipping name		
ADR, ADN, IMDG, IATA	Void	
14.3 Transport hazard class(es)		
ADR, IMDG, IATA		
Class	Void	
Label	-	
ADN/R Class:	Void	
14.4 Packing group		
ADR, IMDĞ, IATA	Void	
14.5 Environmental hazards:		
Marine pollutant:	No	
14.6 Special precautions for user	Not applicable.	
14.7 Transport in bulk according to Ann	ex II of	
Marpol and the IBC Code	Not applicable.	
UN "Model Regulation":	Void	

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Trade name: SDS Cathode buffer (white)

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SECTION 15: Regulatory information

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

· Relevant phrases

H315 Causes skin irritation. H319 Causes serious eye irritation.

· Department issuing SDS: Product safety department

· Contact: +49 6221 13840-35

· 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 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 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2 * Data compared to the previous version altered.

Version number 2

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Revision: 03.05.2018

1.1 Product iden	tifier	CEDI/A
Trade name: SD	S Buffer Neutral Sample Buffer 2X	
No further releva	43803 atified uses of the substance or mixture and use ant information available. The substance / the mixture Laboratory chemicals	
	e supplier of the safety data sheet upplier: horesis GmbH perg 3840-0 13840-10	is Gmb
1.4 Emergency t Medical Emergen Poison Informati	artment: Product Safety department Tel.: +49 6. elephone number: ncy Information in case of poisoning: on Center Mainz - Phone: +49 (0) 6131 19240 in German or English language)	221 13840-35
2.1 Classification	lazards identification 1 of the substance or mixture cording to Regulation (EC) No 1272/2008	
2.1 Classification Classification ac GHS0: Eye Dam. 1 H31 2.2 Label elemen	n of the substance or mixture cording to Regulation (EC) No 1272/2008 5 8 Causes serious eye damage. nts	
2.1 Classification Classification ac GHS03 Eye Dam. 1 H31 2.2 Label elemen Labelling accord	n of the substance or mixture cording to Regulation (EC) No 1272/2008 5 8 Causes serious eye damage. 14s ling to Regulation (EC) No 1272/2008 assified and labelled according to the CLP regul ms GHS05	lation.
2.1 Classification Classification ac Classification ac GHS02 Eye Dam. 1 H31 2.2 Label elemen Labelling accord The product is cl Hazard pictogran Signal word Dan Hazard-determin sodium dodecyl s Hazard statemen H318 Causes ser Precautionary st P280	n of the substance or mixture cording to Regulation (EC) No 1272/2008 5 8 Causes serious eye damage. 5 8 State Sta	
2.1 Classification Classification ac Classification ac GHS0: Eye Dam. 1 H31 2.2 Label elemen Labelling accord The product is cl Hazard pictograd Signal word Dam Hazard-determin sodium dodecyl s Hazard statemen H318 Causes ser Precautionary st P280 P305+P351+P3: P310 2.3 Other hazard	n of the substance or mixture cording to Regulation (EC) No 1272/2008 5 8 Causes serious eye damage. 15 8 Causes serious eye damage. 15 9 16 17 18 18 19 19 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10	

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Trade name: SDS Buffer Neutral Sample Buffer 2X

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≥5 - <15%

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

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

· Dangerous components:

	southin doucest surprime	2.5-7%	
EINECS: 205-788-1	� Flam. Sol. 2, H228; � Eye Dam. 1, H318; � Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335; Aquatic Chronic 3, H412		
· Regulation (EC) No 648/2004 on detergents / Labelling for contents			

anionic surfactants

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

SECTION 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; 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.
- **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
- 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 No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Product forms slippery surface when combined with water.
6.2 Environmental precautions: Dilute with plenty of water.
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.

6.4 Reference to other sections
 See Section 7 for information on safe handling
 See Section 8 for information on personal protection equipment.

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Trade name: SDS Buffer Neutral Sample Buffer 2X

See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 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.
- · 7.2 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: Keep receptacle tightly sealed and store in dry conditions.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 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:

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

• 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. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
- **Breathing equipment:** Short term filter device: Filter 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.

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.

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

Chloroprene rubber, CR Natural rubber, NR

• Eye protection: Safety glasses

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Trade name: SDS Buffer Neutral Sample Buffer 2X

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

SECTION 9: Physical and chemical	properties
· 9.1 Information on basic physical and ch	nemical properties
· General Information	
· Appearance:	
Form:	Fluid
Colour:	Colourless
· Odour:	Odourless
· Odour threshold:	Not determined.
· pH-value at 20 °C:	> 6
· Change in condition	
Melting point/freezing point:	undetermined
Initial boiling point and boiling range:	undetermined
· Flash point:	Not applicable
· Flammability (solid, gaseous)	Not applicable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Self igniting:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not determined.
· Density at 20 •C:	1.011 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Fully miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
· VOČ %:	0.00 %
· 9.2 Other information	No further relevant information available.

SECTION 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 dangerous reactions known

• 10.4 Conditions to avoid No further relevant information available.

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Trade name: SDS Buffer Neutral Sample Buffer 2X

• 10.5 Incompatible materials: No further relevant information available.

· 10.6 Hazardous decomposition products: No dangerous decomposition products known

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

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

· LD/LC50 values that are relevant for classification:

151-21-3 sodium dodecyl sulphate

 Oral
 LD50
 1288 mg/kg (rat)

 Dermal
 LD50
 580 mg/kg (rabbit)

 LC50/96h
 4.5 mg/l (Forelle)

· Primary irritant effect:

· Skin corrosion/irritation Based on available data, the classification criteria are not met.

· Serious eye damage/irritation

Causes serious eye damage.

- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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.

SECTION 12: Ecological information

· 12.1 Toxicity

• Aquatic toxicity:

151-21-3 sodium dodecyl sulphate

EC50/48h 6 mg/l (Daphnia magna)

· 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.
- 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.

SECTION 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. Disposal must be made according to official regulations.

(Contd. on page 6)

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Trade name: SDS Buffer Neutral Sample Buffer 2X

· Uncleaned packagings:

· Recommendation:

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

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

SECTION 14: Transport information

1 5	
· 14.1 UN-Number	-
· 14.2 UN proper shipping name	-
· 14.3 Transport hazard class(es)	-
· 14.4 Packing group	-
 14.5 Environmental hazards: Marine pollutant: 	No
· 14.6 Special precautions for user	Not applicable.
• 14.7 Transport in bulk according to Annex Marpol and the IBC Code	• II of Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.

SECTION 15: Regulatory information

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

• REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

· National regulations

· 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.

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.

· Relevant phrases

H228 Flammable solid. H302 Harmful if swallowed. H315 Causes skin irritation. H318 Causes serious eye damage. H335 May cause respiratory irritation. H412 Harmful to aquatic life with long lasting effects.

· Department issuing SDS: 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 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) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

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GB

Printing date 03.05.2018

Version number 2

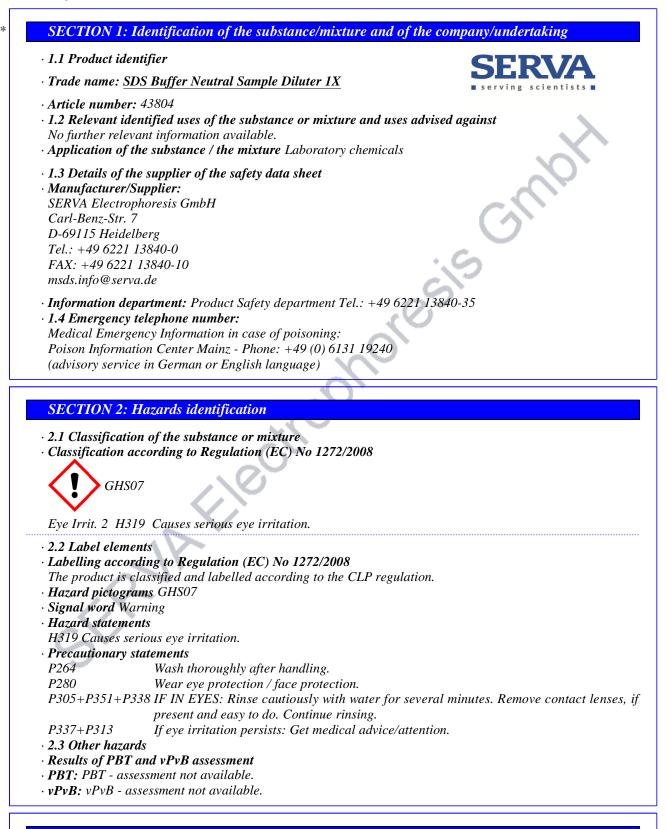
Revision: 03.05.2018

Trade name: SDS Buffer Neutral Sample Buffer 2X

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Sol. 2: Flammable solids – Category 2 Acute Tox. 4: Acute toxicity – Category 4 Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Dam. 1: Serious eye damage/eye irritation – Category 1 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3 • * Data compared to the previous version altered. (Contd. of page 6)

Version number 2

Revision: 03.05.2018



SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

Printing date 03.05.2018

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

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Version number 2

Revision: 03.05.2018

Trade name: SDS Buffer Neutral Sample Diluter 1X

(Contd. of p		
· Dangerous compone	ents:	
CAS: 151-21-3	sodium dodecyl sulphate	1-3%
EINECS: 205-788-1	♦ Flam. Sol. 2, H228; ♦ Eye Dam. 1, H318; ♦ Acute Tox. 4, H302; Skin Irri 2, H315; STOT SE 3, H335; Aquatic Chronic 3, H412	t.
· Regulation (EC) No	648/2004 on detergents / Labelling for contents	
anionic surfactants		<5%

anionic surfactants

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

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- 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.
- · 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

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 No further relevant information available.

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

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures Product forms slippery surface when combined with water.
- · 6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

- Dilute with plenty of 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.
- · 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 Ensure good ventilation/exhaustion at the workplace.

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

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage

• **Requirements to be met by storerooms and receptacles:** No special requirements.

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GB

Printing date 03.05.2018

Version number 2

Revision: 03.05.2018

Trade name: SDS Buffer Neutral Sample Diluter 1X

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed and store in dry conditions.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 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:

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

- 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. Store protective clothing separately. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
- Breathing equipment:

Short term filter device: Filter 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.

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:

Natural rubber, NR

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

SECTION 9: Physical and chemical properties

• 9.1 Information on basic physical and chemical properties

· General Information

· Appearance: Form:

Colour:

· Odour:

Fluid Colourless Odourless (Contd. of page 2)

Printing date 03.05.2018

Version number 2

Revision: 03.05.2018

Trade name: SDS Buffer Neutral Sample Diluter 1X

	(Contd. of p	age
Odour threshold:	Not determined.	
pH-value at 20 °C:	> 6	
Change in condition		
Melting point/freezing point:	undetermined	
Initial boiling point and boiling range	: undetermined	
Flash point:	Not applicable	
Flammability (solid, gaseous)	Not applicable.	
Ignition temperature:		
Decomposition temperature:	Not determined.	
Self igniting:	Product is not selfigniting.	
Explosive properties:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapour pressure:	Not determined.	
Density at 20 °C:	1.011 g/cm ³	
Relative density	Not determined.	
Vapour density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible	
Partition coefficient: n-octanol/water:	Not determined.	
Viscosity:		
dynamic:	Not determined.	
kinematic:	Not determined.	
Solvent content:		
Organic solvents:	0.0 %	
<i>VOC</i> %:	0.00 %	
9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant informations available
- · 10.2 Chemical stability

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- 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: No further relevant information available.
- 10.6 Hazardous decomposition products: No further relevant informations available.
- **SECTION 11: Toxicological information**
- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

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Printing date 03.05.2018

Version number 2

Revision: 03.05.2018

Trade name: SDS Buffer Neutral Sample Diluter 1X

151-21	3 sodium d	odecyl sulphate
Oral	LD50	1288 mg/kg (rat)
Dermal	LD50	580 mg/kg (rabbit)
	LC50/96h	4.5 mg/l (Forelle)
Primary	irritant ef	fect:
Skin con	rosion/irri	tation Based on available data, the classification criteria are not met.
Serious	eye damag	e/irritation
Causes .	serious eye	irritation.
Respirat	tory or skin	sensitisation Based on available data, the classification criteria are not met.
CMR ef	fects (carci	nogenity, mutagenicity and toxicity for reproduction)
Germ ce	ell mutagen	nicity Based on available data, the classification criteria are not met.
Carcino	genicity Ba	used on available data, the classification criteria are not met.
Reprodu	ictive toxic	ity Based on available data, the classification criteria are not met.
STOT-s	ingle expos	sure Based on available data, the classification criteria are not met.
STOT-r	epeated exp	posure Based on available data, the classification criteria are not met.
Aspirati	on hazard	Based on available data, the classification criteria are not met.

· 12.1 Toxicity

• Aquatic toxicity:

151-21-3 sodium dodecyl sulphate

EC50/48h 6 mg/l (Daphnia magna)

• 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.

· 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.

SECTION 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. Disposal must be made according to official regulations.

- · Uncleaned packagings:
- · Recommendation:

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

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

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Printing date 03.05.2018

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Revision: 03.05.2018

Trade name: SDS Buffer Neutral Sample Diluter 1X

(Contd. of page 5)

14.1 UN-Number	
ADR, IMDG, IATA	- Void
14.2 UN proper shipping name	-
ADR, IMDG, IATA	Void
14.3 Transport hazard class(es)	-
ADR, IMDG, IATA	
Class	Void
Label	-
14.4 Packing group	-
ADR, IMDĞ, IATA	Void
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Not applicable.
14.7 Transport in bulk according to Ann	ex II of
Marpol and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- National regulations
- · 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.

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.

· Relevant phrases

H228 Flammable solid.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

· Department issuing SDS: 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)

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)

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Printing date 03.05.2018

Version number 2

Revision: 03.05.2018

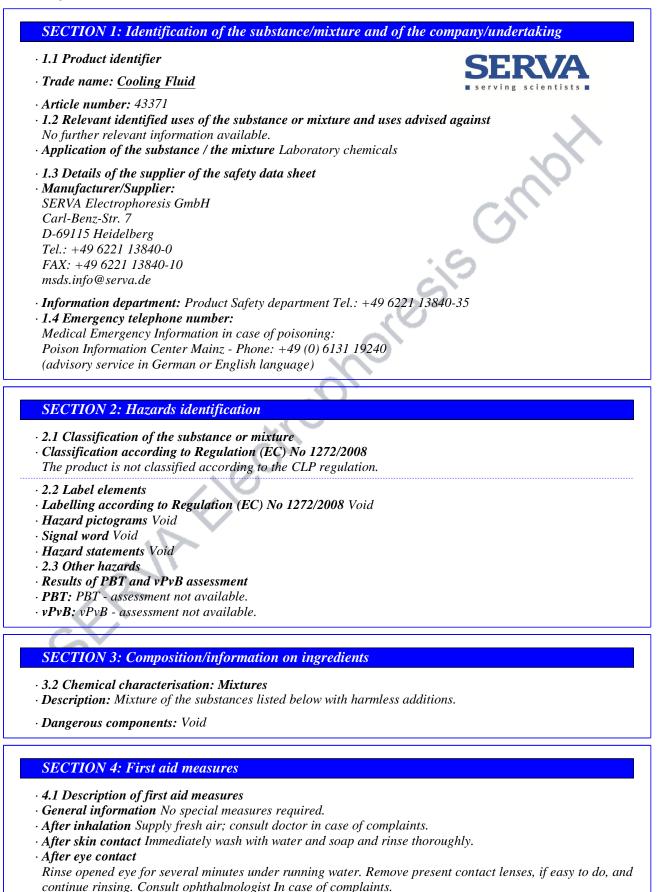
Trade name: SDS Buffer Neutral Sample Diluter 1X

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Sol. 2: Flammable solids – Category 2 Acute Tox. 4: Acute toxicity – Category 4 Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3 • * Data compared to the previous version altered. (Contd. of page 6)

Version number 6

Printing date 03.05.2018

Revision: 18.02.2016



· After swallowing Wash out mouth. Seek medical advice if discomfort occurs.

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GB

Printing date 03.05.2018

Version number 6

Revision: 18.02.2016

Trade name: Cooling Fluid

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

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. Dilute with plenty of 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.
- 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 Ensure good ventilation/exhaustion at the workplace. Avoid contact with eyes and skin.
- · Information about protection against explosions and fires: Keep ignition sources away Do not smoke.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- \cdot Requirements to be met by storerooms and receptacles: Store at +2 to +8 °C
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed and store in dry conditions.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 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:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.

(Contd. on page 3)

GB

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

Printing date 03.05.2018

Version number 6

Revision: 18.02.2016

Trade name: Cooling Fluid

(Cor	ntd. of page 2)
2 Exposure controls	
rsonal protective equipment	
eneral protective and hygienic measures	
e usual precautionary measures should be adhered to when handling chemicals.	
eathing equipment:	
ort term filter device:	
lter P2.	
otection of hands:	
e glove material has to be impermeable and resistant to the product/ the substance/ the preparative to missing tests no recommendation to the glove material can be given for the product/ the pre chemical mixture.	
lection of the glove material on consideration of the penetration times, rates of diffusio gradation	n and the
aterial of gloves	
e selection of the suitable gloves does not only depend on the material, but also on further ality and varies from manufacturer to manufacturer.	r marks of
the selection of the suitable gloves does not only depend on the material, but also on further bality and varies from manufacturer to manufacturer. As the product is a preparation of bstances, the resistance of the glove material can not be calculated in advance and has there ecked prior to the application.	of several
netration time of glove material	
e exact break trough time has to be found out by the manufacturer of the protective gloves and served.	l has to be
servea. For the permanent contact of a maximum of 15 minutes gloves made of the following mat itable:	terials are
utural rubber, NR	
e protection: Safety glasses	
dy protection: Protective work clothing.	

*

9.1 Information on basic physical and	chemical properties	
General Information		
Appearance:		
Form:	Solution	
Colour:	Colourless	
Odour: Odour threshold:	Odourless Not determined	
Oaour inresnoia:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/freezing point:	undetermined	
Initial boiling point and boiling ran	ge: undetermined	
Flash point:	Not applicable	
Flammability (solid, gaseous)	Not applicable.	
Ignition temperature:		
Decomposition temperature:	Not determined.	
Self igniting:	Product is not selfigniting.	
Explosive properties:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	

Printing date 03.05.2018

Version number 6

Revision: 18.02.2016

Trade name: Cooling Fluid

	(Contd. of	page 3
Upper:	Not determined.	
· Vapour pressure:	Not determined.	
· Density:	Not determined	
· Relative density	Not determined.	
· Vapour density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water:	Fully miscible	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
dynamic:	Not determined.	
kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	10.0 %	
· VOC %:	10.00 %	
\cdot VOC g/l:	100.0 g/l	
• 9.2 Other information	No further relevant information available.	

SECTION 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: No further relevant information available.
- 10.6 Hazardous decomposition products: In case of fire: See Section 5

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- · Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- · 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.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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.

SECTION 12: Ecological information

· 12.1 Toxicity

- Aquatic toxicity: No further relevant information available.
- 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.

(Contd. on page 5)

Printing date 03.05.2018

Version number 6

Revision: 18.02.2016

Trade name: Cooling Fluid

· Additional ecological information:

· General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow product to reach ground water, water course or sewage system.

· 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.

SECTION 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. Disposal must be made according to official regulations.

· Uncleaned packagings:

· Recommendation:

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

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

SECTION 14: Transport information · 14.1 UN-Number · ADR, IMDG, IATA Void · 14.2 UN proper shipping name Void · ADR, IMDG, IATA · 14.3 Transport hazard class(es) · ADR, IMDG, IATA · Class Void · Label · 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 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

· National regulations

• Technical instructions (air):



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

(Contd. on page 6)

GB

(Contd. of page 4)

Printing date 03.05.2018

Version number 6

Revision: 18.02.2016

Trade name: Cooling Fluid

(Contd. of page 5)

• 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
- · 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 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 • * Data compared to the previous version altered.