

2D Gel DALT*twelve* NF 12.5% Kit Cat. No. 43315

Safety Data Sheets of the following Kit Components:

43868	2D Gel Dalt NF 12.5%
43823	Anode Buffer for 2D Gels Dalt
43824	Cathode Buffer for 2D Gels Dalt
43825	Equilibration Buffer for 2D Gels Dalt
43826	Agarose Gel for 2D Gels Dalt

Printing date	01.10.2019
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Version number 2

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1.1 Product identifier	CEDI //
Trade name: <u>2D Gel Dalt NF</u>	serving scientists
Article number: 43868 43869 1.2 Relevant identified uses of the substance or mixture and u. No further relevant information available. Application of the substance / the mixture Gels for electrophoresis Laboratory chemicals 1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: SERVA Electrophoresis GmbH Carl-Benz-Str. 7 D Collect to the	ses advised against
D-69115 Heidelberg Tel.: +49 6221 13840-0 FAX: +49 6221 13840-10 msds.info@serva.de	(0)
Information department: Product Safety department Tel.: +49 1.4 Emergency telephone number: Medical Emergency Information in case of poisoning: Poison Information Center Mainz - Phone: +49 (0) 6131 19240 (advisory service in German or English language)	
<u>C</u> N	
SECTION 2: Hazards identification 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 The product is not classified, according to the CLP regulation. 2.2 Label elements Labelling according to Regulation (EC) No 1272/2008 Void	
Hazard pictograms Void Signal word Void Hazard statements Void 2.3 Other hazards Results of PBT and vPvB assessment PBT: PBT - assessment not available. vPvB: vPvB - assessment not available.	
SECTION 3: Composition/information on ingredients	
3.2 Chemical characterisation: Mixtures Description: Polyacrylamidegel, crosslinked with methylenebisacrylamide polyesterfilm.Contains < 0.1 % free acrylamide.	, prepared between 2 sheets of preactivate
Dangerous components: Void	

- 4.1 Description of first aid measures
 General information No special measures required.

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· After inhalation Supply fresh air.

· 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.

 $\cdot \textit{After swallowing}$ 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 fire with 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)

Ammonia (NH₃)

· 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.

• 6.3 Methods and material for containment and cleaning up: Dispose contaminated material as waste according to item 13. Pick up mechanically.

- 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
- \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: 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.

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Additional information: The lists the	
8.2 Exposure controls	
Personal protective equipment	
General protective and hygienic me	asures
Keep away from foodstuffs, beverage	
Store protective clothing separately.	•
Immediately remove all soiled and co	ontaminated clothing
Avoid contact with the eyes and skin.	
Wash hands before breaks and at the	
	iratory protective device recommended.
Protection of hands:	
	eable and resistant to the product/ the substance/ the preparation.
	tion to the glove material can be given for the product/ the preparation
the chemical mixture.	a consideration of the non-struction times, nates of diffusion and th
	n consideration of the penetration times, rates of diffusion and th
degradation Material of gloves	
	s does not only depend on the material, but also on further marks o
quality and varies from manufacture	
	s does not only depend on the material, but also on further marks of
	turer to manufacturer. As the product is a preparation of sever
	ove material can not be calculated in advance and has therefore to b
checked prior to the application.	
Penetration time of glove material	
	be found out by the manufacturer of the protective gloves and has to <i>k</i>
observed.	
Natural rubber, NR	
Natural rubber, NR Nitrile rubber, NBR Eye protection: Safety glasses	othing.
Natural rubber, NR Nitrile rubber, NBR Eye protection: Safety glasses Body protection: Protective work clo	
Natural rubber, NR Nitrile rubber, NBR Eye protection: Safety glasses Body protection: Protective work clo SECTION 9: Physical and chem	ical properties
Natural rubber, NR Nitrile rubber, NBR Eye protection: Safety glasses Body protection: Protective work clo SECTION 9: Physical and chem 9.1 Information on basic physical and	ical properties
suitable: Natural rubber, NR Nitrile rubber, NBR Eye protection: Safety glasses Body protection: Protective work cla SECTION 9: Physical and chem 9.1 Information on basic physical and General Information Appearance:	ical properties nd chemical properties
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Natural rubber, NR Nitrile rubber, NBR Eye protection: Safety glasses Body protection: Protective work clo <u>SECTION 9: Physical and cheme</u> 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour threshold:	ical properties nd chemical properties gel between two plastic films Colourless Odourless Not determined.
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Natural rubber, NR Nitrile rubber, NBR Eye protection: Safety glasses Body protection: Protective work clo SECTION 9: Physical and cheme 9.1 Information on basic physical and General Information Appearance: Form: Colour: Odour: Odour: Odour: Odour: Date in condition Melting point/freezing point: Initial boiling point and boiling ra Flash point: Flammability (solid, gaseous)	ical properties nd chemical properties gel between two plastic films Colourless Odourless Not determined. Not applicable. undetermined unge: undetermined Not applicable Not applicable Not determined.
Natural rubber, NR Nitrile rubber, NBR Eye protection: Safety glasses Body protection: Protective work clo SECTION 9: Physical and cheme 9.1 Information on basic physical an General Information Appearance: Form: Colour: Odour: Odour: Odour threshold: pH-value: Change in condition Melting point/freezing point: Initial boiling point and boiling ra Flash point: Flammability (solid, gaseous) Decomposition temperature:	ical properties nd chemical properties gel between two plastic films Colourless Odourless Not determined. Not applicable. undetermined unge: undetermined Not applicable Not determined. Not determined. Not determined. Not determined.

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· Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
· Vapour pressure:	Not applicable.	
· Density:	Not determined	
Relative density	Not determined.	
· Vapour density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
Water:	Insoluble	
Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
dynamic:	no information available	
kinematic:	no information available	
Solvent content:		
Solids content:	100.0 %	
· 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 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.

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• 12.4 Mobility in soil No further relevant information available.

· Additional ecological information:

· General notes:

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

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

· 12.5 Results of PBT and vPvB assessment

• **PBT:** PBT - assessment not available.

· **vPvB**: vPvB - assessment not available.

 \cdot 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

• Recommendation 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.

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, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
• 14.7 Transport in bulk according to Annex II Marpol and the IBC Code	of Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

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

· 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.

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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 bw: body weight*
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- 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	f the substance/mixture and of the company/	undertaking
· 1.1 Product identifier		SFR\/A
• Trade name: <u>Anode Buffer for 2</u>	D Gels Dalt	serving scientists
 Article number: 43823 1.2 Relevant identified uses of the No further relevant information at Application of the substance / the subs		
 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 	safety data sheet	inno
 Information department: Product 1.4 Emergency telephone number Medical Emergency Information Poison Information Center Mainz (advisory service in German or E) 	in case of poisoning: z - Phone: +49 (0) 6131 19240	
SECTION 2: Hazards identifi		
 2.1 Classification of the substant. Classification according to Regulation. Classification according to Regulation. 2.2 Label elements Labelling according to Regulation. Hazard pictograms Void. Signal word Void. Hazard statements Void. 2.3 Other hazards. Results of PBT and vPvB assessed. 	elation (EC) No 1272/2008 ording to the CLP regulation. on (EC) No 1272/2008 Void ment	
• PBT: PBT - assessment not avail • vPvB: vPvB - assessment not ava		
SECTION 3: Composition/inj	formation on ingredients	
· 3.2 Chemical characterisation: N		
• 3.2 Chemical characterisation: <i>N</i> • Description: Mixture of the subst	Vixtures	

- · General information No special measures required.
- After inhalation Supply fresh air; consult doctor in case of complaints.
- · After skin contact

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

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

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- 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
- *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.

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: Dispose contaminated material as waste according to item 13. Pick up mechanically.
- 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: 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.

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(Contd. of page 2) Store protective clothing separately. Immediately remove all soiled and contaminated clothing Avoid contact with the eyes and skin. Wash hands before breaks and at the end of work. • Breathing equipment: Short term filter device: Filter P2. · Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation • Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. 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: 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: Solid. Colour: White · Odour: *Characteristic* · Odour threshold: Not determined. · pH-value: Not determined.

Melting point/freezing point: unde	
mening point/freeding point. unu	etermined
Initial boiling point and boiling range: unde	etermined

· Flash point:	no information available	
· Flammability (solid, gaseous)	Not determined.	
· Decomposition temperature:	Not determined.	
· Self igniting:	Product is not selfigniting.	
· Explosive properties:	Product does not present an explosion hazard.	
· Explosion limits: Lower: Upper:	Not determined. Not determined.	
· Vapour pressure:	no information available	
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· Density:	Not determined	
· Relative density	Not determined.	
· Vapour density	Not applicable.	
• Evaporation rate	Not applicable.	
· Solubility in / Miscibility with		
Water:	Soluble	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
dynamic:	no information available	
kinematic:	no information available	
· Solvent content:		
Solids content:	100.0 %	
· 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.

SECTION 12: Ecological information

· 12.1 Toxicity

- \cdot Aquatic toxicity: No further relevant information available.
- $\cdot \ \textbf{12.2 Persistence and degradability} \ No \ further \ relevant \ information \ available.$
- \cdot 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- \cdot Additional ecological information:

• General notes:

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

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

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· 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 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	2	
· 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 · Label	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 Ann Marpol and the IBC Code	nex II of Not applicable.	

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

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

· National regulations

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

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Product safety department

· Contact: +49 6221 13840-35

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	bbreviations and acronyms:
	D: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning
	ternational Transport of Dangerous Goods by Rail)
	AO: International Civil Aviation Organisation
	3T: persistent, bioaccumulative, toxic substance (REACH)
	VB: very persistent, very bioaccumulative substance (REACH)
RE	EACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
CL	LP: Regulation on classification, labelling and packaging of substances and mixtures
bw	v: body weight
AL	DR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the Internatio
Са	arriage of Dangerous Goods by Road)
IM	IDG: International Maritime Code for Dangerous Goods
IA	TA: International Air Transport Association
Gł	HS: Globally Harmonised System of Classification and Labelling of Chemicals
EL	INECS: European Inventory of Existing Commercial Chemical Substances
EL	LINCS: European List of Notified Chemical Substances
CA	AS: Chemical Abstracts Service (division of the American Chemical Society)
ΡВ	BT: Persistent, Bioaccumulative and Toxic
vP	PvB: very Persistent and very Bioaccumulative
*	Data compared to the previous version altered.

SECTION 1: Identification of the substant 1.1 Product identifier Frade name: Cathode Buffer for 2D Gels Dat Article number: 43824 2.2 Relevant identified uses of the substance No further relevant information available. Application of the substance / the mixture Lat 3.3 Details of the supplier of the safety data se Manufacturer/Supplier: SERVA Electrophoresis GmbH Carl-Benz-Str. 7 D-69115 Heidelberg Fel.: +49 6221 13840-0 FAX: +49 6221 13840-0 FAX: +49 6221 13840-10 nsds.info@serva.de Information department: Product Safety depart 4.4 Emergency telephone number: Medical Emergency Information in case of po Poison Information Center Mainz - Phone: +44 advisory service in German or English langut SECTION 2: Hazards identification 2.1 Classification of the substance or mixture Classification according to Regulation (EC) Fhe product is not classified, according to the 2.2 Label elements	alt e or mixture and us aboratory chemica sheet partment Tel.: +49 oisoning: 49 (0) 6131 19240	ses advised ago Is 6221 13840-35	serving scientists
Grade name: Cathode Buffer for 2D Gels Date Article number: 43824 1.2 Relevant identified uses of the substance No further relevant information available. Application of the substance / the mixture Late 3.3 Details of the supplier of the safety data substance SerVA Electrophoresis GmbH Carl-Benz-Str. 7 D-69115 Heidelberg Fel: +49 6221 13840-0 FAX: +49 6221 13840-10 nsds.info@serva.de Information department: Product Safety departments Product Emergency telephone number: Medical Emergency Information in case of poperison Information Center Mainz - Phone: +44 Advisory service in German or English langu SECTION 2: Hazards identification Classification of the substance or mixture Classification according to Regulation (EC) The product is not classified, according to the	e or mixture and us aboratory chemica sheet partment Tel.: +49 pisoning: 49 (0) 6131 19240	els 6221 13840-35	Gmbh
Article number: 43824 2. Relevant identified uses of the substance No further relevant information available. Application of the substance / the mixture La 3. Details of the supplier of the safety data so Manufacturer/Supplier: SERVA Electrophoresis GmbH Carl-Benz-Str. 7 D-69115 Heidelberg Fel.: +49 6221 13840-0 FAX: +49 6221 13840-10 msds.info@serva.de Information department: Product Safety departs 4.4 Emergency telephone number: Medical Emergency Information in case of por Poison Information Center Mainz - Phone: +4 advisory service in German or English langut SECTION 2: Hazards identification 2.1 Classification of the substance or mixture Classification according to Regulation (EC) The product is not classified, according to the	e or mixture and us aboratory chemica sheet partment Tel.: +49 pisoning: 49 (0) 6131 19240	els 6221 13840-35	Gmbh
A.2 Relevant identified uses of the substance No further relevant information available. Application of the substance / the mixture La A.3 Details of the supplier of the safety data s Manufacturer/Supplier: SERVA Electrophoresis GmbH Carl-Benz-Str. 7 D-69115 Heidelberg Fel.: +49 6221 13840-0 FAX: +49 6221 13840-10 insds.info@serva.de Information department: Product Safety depa A Emergency telephone number: Medical Emergency Information in case of po Poison Information Center Mainz - Phone: +4 advisory service in German or English langu SECTION 2: Hazards identification P.1 Classification of the substance or mixture Classification according to Regulation (EC) The product is not classified, according to the	aboratory chemica sheet partment Tel.: +49 pisoning: 49 (0) 6131 19240	els 6221 13840-35	Gmbh
Manufacturer/Supplier: SERVA Electrophoresis GmbH Carl-Benz-Str. 7 D-69115 Heidelberg Fel.: +49 6221 13840-0 FAX: +49 6221 13840-10 nsds.info@serva.de Information department: Product Safety depa 4.4 Emergency telephone number: Medical Emergency Information in case of po Poison Information Center Mainz - Phone: +4 advisory service in German or English langu SECTION 2: Hazards identification 2.1 Classification of the substance or mixture Classification according to Regulation (EC) The product is not classified, according to the	oartment Tel.: +49 oisoning: 49 (0) 6131 19240	CO I	Grifo
FAX: +49 6221 13840-10 nsds.info@serva.de Information department: Product Safety depa 4.4 Emergency telephone number: Medical Emergency Information in case of po Poison Information Center Mainz - Phone: +4 advisory service in German or English langu SECTION 2: Hazards identification 2.1 Classification of the substance or mixture Classification according to Regulation (EC) The product is not classified, according to the	oisoning: 49 (0) 6131 19240	CO I	5
2.4 Emergency telephone number: Medical Emergency Information in case of po Poison Information Center Mainz - Phone: +4 advisory service in German or English langu SECTION 2: Hazards identification 2.1 Classification of the substance or mixture Classification according to Regulation (EC) The product is not classified, according to the	oisoning: 49 (0) 6131 19240	CO I	5
2.1 Classification of the substance or mixtur Classification according to Regulation (EC) The product is not classified, according to the	$\overline{\mathbf{O}}$		
2.1 Classification of the substance or mixtur Classification according to Regulation (EC) The product is not classified, according to the			
Labelling according to Regulation (EC) No B Hazard pictograms Void Signal word Void Hazard statements Void 2.3 Other hazards Results of PBT and vPvB assessment PBT: PBT - assessment not available.	No 1272/2008 e CLP regulation.		
PvB: vPvB - assessment not available.			
SECTION 3: Composition/information o	on ingredients		
3.2 Chemical characterisation: Mixtures			
Description: Mixture of the substances listed Dangerous components: Contains < 6 % CAS			lt
SECTION 4: First aid measures			
4.1 Description of first aid measures General information No special measures rea			

- 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.

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- 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.

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:** Dispose contaminated material as waste according to item 13. Pick up mechanically.
- 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: 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.
- · 8.2 Exposure controls
- · Personal protective equipment
- General protective and hygienic measures Keep away from foodstuffs, beverages and feed. Store protective clothing separately.

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Trade name: Cathode Buffer for 2D Gels Dalt

(Contd. of page 2) Immediately remove all soiled and contaminated clothing Avoid contact with the eyes and skin. Wash hands before breaks and at the end of work. · Breathing equipment: Short term filter device: Filter P2. · Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation • Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. 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: Natural rubber, NR · Eye protection: Not required. · Body protection: Protective work clothing. **SECTION 9: Physical and chemical properties** · 9.1 Information on basic physical and chemical properties

· 9.1 Information on basic physical and ch · General Information	
· Appearance:	
Form:	Solid.
Colour:	White
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	undetermined
Initial boiling point and boiling range:	undetermined
· Flash point:	no information available
· Flammability (solid, gaseous)	Not determined.
· 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:	no information available
· Density:	Not determined

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Trade name: Cathode Buffer for 2D Gels Dalt

	(Contd. of page 3
· Relative density	Not determined.	
· Vapour density	Not applicable.	
· Evaporation rate	Not applicable.	
· Solubility in / Miscibility with		
Water:	Soluble	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
dynamic:	no information available	
kinematic:	no information available	
· Solvent content:		
Solids content:	100.0 %	
· 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.

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

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

- · 12.5 Results of PBT and vPvB assessment
- **PBT:** PBT assessment not available.

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Revision: 16.07.2019

Trade name: Cathode Buffer for 2D Gels Dalt

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

SECTION 15: Regulatory information

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

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · National regulations
- Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Product safety department

· Contact: +49 6221 13840-35

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Trade name: Cathode Buffer for 2D Gels Dalt

ATT • /• T	(Contd. of page 5
Abbreviations and acronyms:	
	unt le transport des marchandises dangereuses par chemin de fer (Regulations Concerning th
International Transport of Dangerous G	oods by Rail)
ICAO: International Civil Aviation Orga	
PBT: persistent, bioaccumulative, toxic s	substance (REACH)
vPvB: very persistent, very bioaccumula	tive substance (REACH)
REACH: Regulation concerning the Reg	istration, Evaluation, Authorisation and Restriction of Chemicals
CLP: Regulation on classification, labell	ling and packaging of substances and mixtures
bw: body weight	
ADR: Accord européen sur le transport	t des marchandises dangereuses par Route (European Agreement concerning the Internation
Carriage of Dangerous Goods by Road)	
IMDG: International Maritime Code for	Dangerous Goods
IATA: International Air Transport Assoc	iation
GHS: Globally Harmonised System of C	lassification and Labelling of Chemicals
EINECS: European Inventory of Existing	3 Commercial Chemical Substances
ELINCS: European List of Notified Chem	nical Substances
CAS: Chemical Abstracts Service (division	on of the American Chemical Society)
PBT: Persistent, Bioaccumulative and To	DXic
vPvB: very Persistent and very Bioaccun	nulative
* Data compared to the previou	

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SECTION 1: Identification o	f the substance/mixture and of the company/	undertaking
· 1.1 Product identifier		SFR\/A
• Trade name: <u>Equilibration Buff</u>	fer for 2D Gels Dalt	serving scientists
• Article number: 43825 • 1.2 Relevant identified uses of the No further relevant information of • Application of the substance / the		
 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	inno
• Information department: Produce • 1.4 Emergency telephone number Medical Emergency Information Poison Information Center Main (advisory service in German or E	n in case of poisoning: 2 - Phone: +49 (0) 6131 19240	
SECTION 2: Hazards identif	fication	
• 2.1 Classification of the substan • Classification according to Regu The product is not classified, acc	nce or mixture ulation (EC) No 1272/2008	
 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 avaid vPvB: vPvB - assessment not avaid 	s ment lable.	
SECTION 3: Composition/in	formation on ingredients	
• 3.2 Chemical characterisation: • Description: Mixture of the subs	<i>Mixtures</i> tances listed below with harmless additions.	
· Dangerous components: contain	ns < 3 % CAS 151-21-3 Dodecylsulfate-Na-salt	
SECTION 4: First aid measu		
• 4.1 Description of first aid meas • General information No special		

- After inhalation Supply fresh air; consult doctor in case of complaints.
- · After skin contact

*

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

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

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Trade name: Equilibration Buffer for 2D Gels Dalt

- 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
- 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.
- · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- \cdot 6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

• 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: 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. Store protective clothing separately.

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Trade name: Equilibration Buffer for 2D Gels Dalt

(Contd. of page 2) Immediately remove all soiled and contaminated clothing Avoid contact with the eyes and skin. Wash hands before breaks and at the end of work. · Breathing equipment: Short term filter device: Filter P2. · Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation • Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. 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: 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: Solution Colour: Blue · Odour: *Characteristic* · Odour threshold: Not determined. • pH-value at 20 °C: 8.7-8.9 · Change in condition Melting point/freezing point: undetermined Initial boiling point and boiling range: undetermined · Flash point: no information available · Flammability (solid, gaseous) Not applicable. · Decomposition temperature: Not determined. · Self igniting: Product is not selfigniting. · Explosive properties: Product does not present an explosion hazard. · Explosion limits: Lower: Not determined. Not determined. Upper: Not determined. · Vapour pressure: Not determined · Density: (Contd. on page 4)

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Trade name: Equilibration Buffer for 2D Gels Dalt

	(Contd. of page 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:		
<i>VOC</i> %:	0.00 %	
VOC g/l:	0.0 g/l	
· Solids content:	2.9 %	
· 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.
- \cdot 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.
- · Additional ecological information:
- · General notes:

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

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Printing date 01.10.2019

Version number 4

Revision: 16.07.2019

Trade name: Equilibration Buffer for 2D Gels Dalt

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

· 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 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 ADR, IMDG, IATA	Void
14.3 Transport hazard class(es)	
ADR, IMDG, IATA Class Label	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.

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

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

· 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.

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Revision: 16.07.2019

Trade name: Equilibration Buffer for 2D Gels Dalt

1	Department issuing SDS: Product safety department
	Contact: +49 6221 13840-35
F	Abbreviations and acronyms:
	RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concernin
	International Transport of Dangerous Goods by Rail)
I	ICAO: International Civil Aviation Organisation
ŀ	PBT: persistent, bioaccumulative, toxic substance (REACH)
v	vPvB: very persistent, very bioaccumulative substance (REACH)
ŀ	REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
(CLP: Regulation on classification, labelling and packaging of substances and mixtures
k	bw: body weight
A	ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the Internat
(Carriage of Dangerous Goods by Road)
1	IMDG: International Maritime Code for Dangerous Goods
1	IATA: International Air Transport Association
(GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ŀ	EINECS: European Inventory of Existing Commercial Chemical Substances
ŀ	ELINCS: European List of Notified Chemical Substances
(CAS: Chemical Abstracts Service (division of the American Chemical Society)
ŀ	PBT: Persistent, Bioaccumulative and Toxic
v	vPvB: very Persistent and very Bioaccumulative
*	* Data compared to the previous version altered.

SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1 Product identifier Trade name: Agarose Gel for 2D Gels Dalt Article number: 43826 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available. Application of the substance / the mixture Gels for electrophoresis Laboratory chemicals 1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier: SERVA Electrophoresis GmbH Carl-Benz-Str. 7 D-09115 Heidelberg Tel: +49 6221 13840-0 FAX: +449 6221 13840-0 SERVA Electrophorenet: Product Safety department Tel: +49 6221 13840-35 1.4 Emergency telephone number: Medical Emergency Information in case of poisoning: Poison Information of the substance or mixture Classification of the substance or mixture Classification of the substance or mixture Classification of the substance or mixture SECTION 2: Hazards identification 2.2 Label elements Labaeling according to Regulation (EC) No 1272/2008 Void Hazard statements Void Signal word Void Hazard statements void Sacuts of PBE and vPvB assessment PBT: PBT: -45 - 45 - 45 - 45 - 45 - 45 - 45 - 45	rinting date 01.10.2019	Version number 2	Revision: 16.07.201
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• 3.2 Chemical characterisation: Mixtures • Description: gel in centrifuge tubes	9		
• Description: gel in centrifuge tubes			
Dangerous components: Void			
Dungerous components. vou	• Dangerous components: Void		
SECTION 4: First aid measures	SECTION 4: First aid measur		

- · General information No special measures required.
- After inhalation Supply fresh air.
- · After skin contact

Immediately wash with water and soap and rinse thoroughly. Consult doctor if you feel unwell.

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· 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 Seek medical treatment.
- 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 fire with 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.
- · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up: Dispose contaminated material as waste according to item 13. Pick up mechanically.
- 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: 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.

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8.2 Exposure controls	
Personal protective equipment	
General protective and hygienic measure	es
Keep away from foodstuffs, beverages and	d feed.
Store protective clothing separately.	
Immediately remove all soiled and contar	ninated clothing
Avoid contact with the eyes and skin.	
Wash hands before breaks and at the end	
Breathing equipment: Suitable respirato	ry protective device recommended.
Protection of hands:	
	e and resistant to the product/ the substance/ the preparation. to the glove material can be given for the product/ the preparatic
the chemical mixture.	o o o o o o o o o o o o o o o o o o o
Selection of the glove material on cor degradation	nsideration of the penetration times, rates of diffusion and t
Material of gloves	
	es not only depend on the material, but also on further marks
quality and varies from manufacturer to r	• •
The selection of the suitable gloves doe quality and varies from manufacturer	es not only depend on the material, but also on further marks r to manufacturer. As the product is a preparation of sever
substances, the resistance of the glove n checked prior to the application.	naterial can not be calculated in advance and has therefore to
Penetration time of glove material	
	und out by the manufacturer of the protective gloves and has to
observed.	and but by the manufacturer of the protective gloves and has to
UDserveu.	
	num of 15 minutes alongs made of the following materials
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Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapour pressure:	Not applicable.	
Density:	Not determined	
Relative density	Not determined.	
Vapour density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
Water:	Insoluble	
Partition coefficient: n-octanol/water:	Not determined.	
Viscosity:		
dynamic:	Not applicable.	
kinematic:	Not applicable.	
Solvent content:		
Solids content:	100.0 %	
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 further relevant informations available.
- 10.4 Conditions to avoid No further relevant information available.
- \cdot 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.

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- 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

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

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

· 12.5 Results of PBT and vPvB assessment

• **PBT:** PBT - assessment not available.

· **vPvB**: vPvB - assessment not available.

 \cdot 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- Recommendation 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.

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, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
• 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.	
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

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

· 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.

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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 bw: body weight

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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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