rinting date 03.05.2018	Version number 2	Revision: 07.11.201
SECTION 1: Identification of	of the substance/mixture and of the co	ompany/undertaking
· 1.1 Product identifier		SERVA
• Trade name: <u>TMB Ready to use</u>	e ELISA substrate	serving scientists
No further relevant information	the substance or mixture and uses advise available. he mixture Laboratory chemicals	ed 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	Suno.
 Information department: Prodution 1.4 Emergency telephone numbers Medical Emergency Information Poison Information Center Main (advisory service in German or Figure 1) 	n in case of poisoning: nz - Phone: +49 (0) 6131 19240	40-35
SECTION 2: Hazards identif • 2.1 Classification of the substan • Classification according to Reg The product is not classified acc	nce or mixture gulation (EC) No 1272/2008	
 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 assess PBT: PBT - assessment not avait vPvB: vPvB - assessment not avait 	sment ilable.	
SECTION 3: Composition/in	nformation on ingredients	
• 3.2 Chemical characterisation: • Description: Mixture of the subs	<i>Mixtures</i> stances listed below with harmless addition	ons.
· Dangerous components:		
CAS: 872-50-4 N-methyl-2	2-pyrrolidone	<5%
EINECS: 212-828-1 & Repr. 1 H335	IB, H360D; 📢 Skin Irrit. 2, H315; Eye Ir	<i>1u</i> . 2, 11517, 5101 5E 5,

• 4.1 Description of first aid measures

• After inhalation Supply fresh air; consult doctor in case of complaints.

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· 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.

- $\cdot \textit{After swallowing}$ 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 fires with water spray or alcohol resistant foam. • 5.2 Special hazards arising from the substance or mixture

In case of fire formation of toxic vapours and gases is possible. 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 Avoid contact with the eyes and skin.
6.2 Environmental precautions: 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.

• 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
- \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.

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	1	
•	Components with limit ve	values that require monitoring at the workplace:

872-50-4 N-methyl-2-pyrrolidone (<5%)

WEL () Short-term value: 309 mg/m³, 75 ppm Long-term value: 103 mg/m³, 25 ppm Sk

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

· 8.2 Exposure controls

· 8.1 Control parameters

- · Personal protective equipment
- \cdot General protective and hygienic measures
- The usual precautionary measures should be adhered to when handling chemicals.
- **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.*

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

Natural rubber, NR

Nitrile rubber, NBR

- Eye protection: Goggles recommended during refilling.
- **Body protection:** Protective work clothing.

emical properties Solution colourless to slightly blue		
colourless to slightly blue		
colourless to slightly blue		
colourless to slightly blue		
0 1		
01 1		
Odourless		
3.75-3.85		
undetermined undetermined		
no information available		
Product is not selfigniting.		
		(Contd. on page 4)
i i	undetermined undetermined no information available	3.75-3.85 undetermined undetermined no information available

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 • Explosive properties:
 Product does not present an explosion hazard.

 • Density:
 Not determined

 • Solubility in / Miscibility with Water:
 Fully miscible

 • 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 exposure to the light high ttemperatures
- · 10.5 Incompatible materials:
- Avoid contact with:

Acids

strong oxidizing agents and strong reducing agents

· 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:

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.

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· 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 Anne	x 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

· 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.

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	(Contd. of pag
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.
Denarti	ment issuing SDS: Product safety department
	t: +49622113840-35
Abbrev	iations and acronyms:
RID: Règ	lement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning onal Transport of Dangerous Goods by Rail)
ICAO: Int	ternational Civil Aviation Organisation
PBT: pers	sistent, bioaccumulative, toxic substance (REACH)
vPvB: ver	ry persistent, very bioaccumulative substance (REACH)
REACH:	Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
CLP: Reg	ulation on classification, labelling and packaging of substances and mixtures
	cord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the Internatio
Carriage	of Dangerous Goods by Road)
IMDG: In	nternational Maritime Code for Dangerous Goods
IATA: Inte	ernational Air Transport Association
GHS: Glo	obally Harmonised System of Classification and Labelling of Chemicals
EINECS:	European Inventory of Existing Commercial Chemical Substances
ELINCS:	European List of Notified Chemical Substances
CAS: Che	emical Abstracts Service (division of the American Chemical Society)
PBT: Pers	sistent, Bioaccumulative and Toxic
	ubstances of Very High Concern
	ry Persistent and very Bioaccumulative
	2: Skin corrosion/irritation – Category 2
-	2: Serious eye damage/eye irritation – Category 2
	· Reproductive toxicity – Category 1B
	3: Specific target organ toxicity (single exposure) – Category 3
* Data	compared to the previous version altered.