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SECTION 1: Identification of the substance/mixture and of the company/undertaking

- · 1.1 Product identifier
- · Trade name: Anti-Corrosive Additive
- · Article number: 43392
- · **UFI:** QD40-000U-D002-KA28
- 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: Laboratory chemicals
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

SERVA Electrophoresis GmbH

Carl-Benz-Str. 7 D-69115 Heidelberg Tel.: +49 6221 13840-0 FAX: +49 6221 13840-10 msds.info@serva.de

- · Information department: Product Safety department Tel.: +49 6221 13840-35
- · 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)

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008:



GHS08

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



Acute Tox. 4 H302 Harmful if swallowed.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

- · Hazard pictograms: GHS07, GHS08
- · Signal word: Warning
- · Hazard-determining components of labelling:

Ethanediol

· Hazard statements:

H302 Harmful if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P260 Avoid breathing mist/vapours/spray.P264 Wash thoroughly after handling.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

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- · Labelling of packages where the contents do not exceed 125 ml
- · Hazard pictograms GHS07, GHS08
- · Signal word Warning
- · Hazard-determining components of labelling:

Ethanediol

- · Hazard statements Void
- · Precautionary statements

P260 Avoid breathing mist/vapours/spray.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

- · 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 Mixtures
- Description: Mixture of the substances listed below with harmless additions.

· Dangerous components:		
CAS: 107-21-1	Ethanediol	80-100%
EINECS: 203-473-3	🗞 STOT RE 2, H373; 🕦 Acute Tox. 4, H302	
CAS: 17265-14-4	Disodium sebacate	2.5-7%
EINECS: 241-300-3	♦ Eye Irrit. 2, H319	
	methyl-1H-benzotriazole	0.1-0.2%
EINECS: 249-596-6	🗞 Repr. 2, H361d; 锋 Aquatic Chronic 2, H411; 🐧 Acute Tox. 4, H302	
	sodium 4(or 5)-methyl-1H-benzotriazolide	0.1-0.2%
EINECS: 265-004-9	 ♠ Repr. 2, H361d; ♠ Skin Corr. 1B, H314; ♠ Aquatic Chronic 2, H411; ♠ Acute Tox. 4, H302 	

· Additional information

the product contains no further substances which shall be indicated according to REACH-Regulation (Regulation (EC) No. 1907/2006).

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 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.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Call for doctor immediately.

- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- \cdot 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.

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· 5.2 Special hazards arising from the substance or mixture:

In case of fire formation of harmful vapours and of fumes/ mist is possible.

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

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

107-21-1 Ethanediol (80-100%)

WEL Short-term value: 104** mg/m³, 40** ppm Long-term value: 10* 52** mg/m³, 20** ppm *Sk* *particulate **vapour

- · Additional information: The lists that were valid during the creation were used as basis.
- · 8.2 Exposure controls
- · Appropriate engineering controls: No further data; see item 7.
- · Individual protection measures, such as 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

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

· Breathing equipment:

Short term filter device:

Filter A/P2.

· Hand protection:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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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

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

Nitrile rubber, NBR Chloroprene rubber, CR

· Eye/face 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:

· Physical state: Fluid · Colour: Pink

· Odour: Recognisable

· Odour threshold: no information available

· Melting point/freezing point: -16 °C

· Boiling point or initial boiling point and boiling

range: >160 °C

· Flammability: no information available

· Lower and upper explosion limit:

· Lower: 3.2 Vol % · Upper: 43 Vol % · Flash point: >124 °C

· Decomposition temperature: no information available

· pH at 20 °C: 8.2-8.6

· Viscosity:

· Kinematic viscosity: Not determined.

· Dynamic viscosity: no information available

· Solubility:

· Water at 20 °C: $1000 \, g/l$

· Partition coefficient n-octanol/water (log value): no information available

· Vapour pressure at 20 °C: 0.053 hPa

· Density and/or relative density:

· Density at 20 °C: 1.122-1.125 g/cm³ · Relative density: Not determined.

· 9.2 Other information

· Appearance:

· Form: Solution

· Important information on protection of health and

environment, and on safety:

410 °C · Ignition temperature: · Explosive properties:

Not determined.

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· **VOC** %: 0.00 %

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.
- · 10.5 Incompatible materials:

Avoid contact with:

Strong oxidizers

hydroxides of alkaline metals

• 10.6 Hazardous decomposition products: In case of fire: See Section 5

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:
- · Acute toxicity: Harmful if swallowed.

· LD/LC50 values that	t are rei	levant for c	lassification:
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107-21-1 Ethanediol				
Oral	LD50	4,700 mg/kg (rat)		
Dermal	LD50	4,700 mg/kg (rat) 10,620 mg/kg (rbt) >18,500 mg/l (trout)		
	LC50/96h	>18,500 mg/l (trout)		

- · Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation: Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- · Reproductive toxicity: Based on available data, the classification criteria are not met.
- · STOT-single exposure: Based on available data, the classification criteria are not met.
- · STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure.
- $\cdot \textbf{Aspiration hazard:} \ \textit{Based on available data, the classification criteria are not met.}$
- · Other information (about experimental toxicology)

experience concerning human exposure to 1,2-ethanediol:

the substance may cause adverse effects on kidneys through repeated oral exposure or through repeated dermal exposure to large amounts.

- · Additional toxicological information:
- · Toxicokinetics, metabolism and distribution risc of skin resorption
- · 11.2 Information on other hazards:
- · Endocrine disrupting properties:

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity:
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability:

DOC decrease >70% (28 d)

Easily biodegradable

- · 12.3 Bioaccumulative potential: The bioaccumulative potential is considered to be low.
- · 12.4 Mobility in soil: No further relevant information available.

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- · 12.5 Results of PBT and vPvB assessment:
- · PBT: PBT assessment not available.
- · vPvB: vPvB assessment not available.
- 12.6 Endocrine disrupting properties: For information on endocrine disrupting properties see section 11.
- · 12.7 Other adverse effects:
- · Additional ecological information:
- · General notes:

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

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

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Disposal must be made according to official regulations.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · 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 or ID 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, IMDG, IATA	Void
14.5 Environmental hazards	
Marine pollutant:	No
14.6 Special precautions for user	Not applicable.
14.7 Maritime transport in bulk accordin	g to IMO
instruments	Not applicable.

SECTION 15: Regulatory information

- $\cdot 15.1\ Safety,\ health\ and\ environmental\ regulations/legislation\ specific\ for\ the\ substance\ or\ mixture$
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

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

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- · Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

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

None of the ingredients is listed.

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

SECTION 16: Other information

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

· Relevant phrases

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H319 Causes serious eye irritation.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

- · Department issuing SDS: Product safety department
- · Contact: +49 6221 13840-35
- · Date of previous version: 28.02.2018
- · Version number of previous version: 2
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - Category 4

Skin Corr. 1B: Skin corrosion/irritation - Category 1B

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2