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

· 1.1 Product identifier

· Trade name: Protease Inhibitor Mix G

· Article number: 39101

· UFI: 1U50-K0RK-K00G-T3YC

 \cdot 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

 $\cdot \textbf{\textit{Application of the substance / the mixture:}} \ Laboratory \ chemicals$

· 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: Security Department Phone: +49 6221 13840-35

· 1.4 Emergency telephone number:

Emergency medical information in case of poisoning Poison Information Centre Mainz-Tel: +49 (0) 6131 19240 (Counselling in German and English)

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.



GHS05

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

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

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

- · Hazard pictograms: GHS05, GHS07, GHS08
- · Signal word: Danger
- · Hazard-determining components of labelling:

Disodium dihydrogen ethylenediaminetetraacetate dihydrate

4-(2-Aminoethyl)-benzene sulfonyl fluoride hydrochloride

· Hazard statements:

H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

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

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· Precautionary statements

P260 Do not breathe dust.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- · Labelling of packages where the contents do not exceed 125 ml
- · Hazard pictograms GHS05, GHS07, GHS08
- · Signal word Danger

· Hazard-determining components of labelling:

 $Disodium\ dihydrogen\ ethylenediam in etetra acetate\ dihydrate$

4-(2-Aminoethyl)-benzene sulfonyl fluoride hydrochloride

· Hazard statements

H314 Causes severe skin burns and eye damage.

· Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment:
- · PBT: PBT Assessment not available.
- · vPvB: vPvB Assessment not available.
- · Determination of endocrine-disrupting properties No further relevant information available.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · **Description:** Solids mixture

	· Dangerous components:			
	CAS: 6381-92-6	Disodium dihydrogen ethylenediaminetetraacetate dihydrate	40-70%	
	EINECS: 205-358-3	♦ STOT RE 2, H373; ♦ Acute Tox. 4, H332		
	Reg.nr.: 01-2119486775-20			
CAS: 30827-99-7		4-(2-Aminoethyl)-benzene sulfonyl fluoride hydrochloride	20-40%	
		📀 Skin Corr. 1B, H314		

· Additional information

The product does not contain any other substances that have to be declared according to UK REACH (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:

Wash off immediately with plenty of soap and water; rinse thoroughly; seek medical attention.

· After eye contact:

Rinse opened eye for several minutes with running water. Remove contact lenses if possible and continue rinsing. Consult an ophthalmologist immediately.

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· After swallowing:

Rinse out mouth. Call a doctor immediately.

Do not induce vomiting - risk of chemical burns!

· 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:

Formation of hazardous vapours and gases possible during heating or in case of fire.

In case of fire, the following can be formed, but not limited to:

Hydrogen chloride (HCl)

Nitrogen oxides (NOx)

Carbon monoxide and carbon dioxide

- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained breathing apparatus.
- · Additional information

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

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

Ensure adequate ventilation

Avoid formation of dust.

- 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 section 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:

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of dust.

- · 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:

Store only in the original receptacle.

Storage temperature: -15 to -25 °C

- · Information about storage in one common storage facility: Store away from oxidising agents.
- · Further information about storage conditions: Store containers tightly closed and dry.

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· 7.3 Specific end use(s): No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

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

- · 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 section 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 P2.

· Hand protection:

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 Nitrile rubber, NBR

- · Eye/face protection: Tightly sealed goggles.
- · **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information:

Physical state: Solid.
Colour: White
Odourless
Odour threshold: not determined.

• Melting point/freezing point: No information available

· Boiling point or initial boiling point and boiling

range: No information available

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• Flammability: No information available

· Lower and upper explosion limit:

Lower: No information available
 Upper: No information available
 Flash point: No information available
 Decomposition temperature: No information available
 pH: No information available

· Viscosity:

Kinematic viscosity:
 Dynamic viscosity:
 No information available
 No information available

· Solubility:

· Water: Soluble

Partition coefficient n-octanol/water (log value): No information available
 Vapour pressure: No information available

· Density and/or relative density:

Density: No information available
 Relative density: No information available
 Particle characteristics No information available

· 9.2 Other information

· Appearance:

· Form: Powder

· Important information on protection of health and environment, and on safety:

• Explosive properties: The product is not explosive, but the formation of

explosive dust/air mixtures is possible.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity: No further relevant information available.
- · 10.2 Chemical stability:
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions: No further relevant information available.
- · 10.4 Conditions to avoid: Avoid high temperatures, flames and sparks
- · 10.5 Incompatible materials: Avoid contact with oxidising agents.
- · 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 inhaled.
- · Skin corrosion/irritation: Causes severe skin burns and eye damage.
- · 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.
- · Aspiration hazard: Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards:
- · Endocrine disrupting properties: No relevant information available

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SECTION 12: Ecological information

- · 12.1 Toxicity:
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability: No further relevant information available.
- · 12.3 Bioaccumulative potential: No further relevant information available.
- · 12.4 Mobility in soil: No further relevant information available.
- · 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: Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Dispose of in accordance with official regulations.

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

- · Uncleaned packagings:
- · Recommendation:

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

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

· 14.1 UN number or ID number · ADR, IMDG, IATA	UN3261
14.2 UN proper shipping name ADR IMDG, IATA	3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S (4-(2-Aminoethyl)-benzene sulfonyl fluoride hydrochloride mixture) CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (4 (2-Aminoethyl)-benzene sulfonyl fluoride hydrochloride mixture)
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA	
	8 Corrosive substances. 8
· Class: · Label: · 14.4 Packing group · ADR, IMDG, IATA	
· Label: · 14.4 Packing group	8

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Hazard identification number (Kemler code):	80
EMS Number:	F- A , S - B
Segregation groups	(SGG1) Acids
Stowage Category	B
Segregation Code	SG36 Stow "separated from" SGG18-alkalis.
	SG49 Stow "separated from" SGG6-cyanides
14.7 Maritime transport in bulk according to IM	10
instruments	Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
ADR	
Limited quantities (LQ)	1 kg
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 500 g
Transport category	2
Tunnel restriction code	E
· IMDG	
Limited quantities (LQ)	1 kg
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 500 g
UN ''Model Regulation'':	UN 3261 CORROSIVE SOLID, ACIDIC, ORGANI
	N.O.S. (4-(2-AMINOETHYL)-BENZENE SULFON
	FLUORIDE HYDROCHLORIDE MIXTURE), 8, II

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Poisons Act
- · Regulated explosives precursors

None of the ingredients is listed.

· Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

None of the ingredients is listed.

· Reportable poisons

None of the ingredients is listed.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

None of the ingredients is listed.

- · REGULATION (EU) 2019/1148
- · Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

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· 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 2 (Self-assessment): hazardous for water.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

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

· Relevant phrases

H314 Causes severe skin burns and eye damage.

H332 Harmful if inhaled.

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

· Department issuing SDS: Product Safety Department

· Contact: +49 6221 13840-35

· Date of previous version: 29.09.2009

· Abbreviations and acronyms:

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

ICAO: International Civil Aviation Organisation

PBT: persistent, bioaccumulative, toxic substance (UK REACH)

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

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

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

bw: body weight

UFI: Unique Formula Identifier

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - Category 4

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

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

GB