

Safety Information Plasma Renin Activity ELISA

Revision Date: 15.02.2021

The RCD032R Plasma Renin Activity ELISA is an enzyme immunoassay for the quantitative determination of plasma renin activity (PRA) in human plasma.

For professional use only. Users should have a thorough understanding of the Product Data Sheet prior to their use of this kit.

Kit Components:

- A) Generation Buffer
- B) PMSF
- C) Rabbit Anti-Ang-I Antibody Coated Microplate
- D) Angiotensin-I-Biotin Conjugate
- E) HRP Conjugate Concentrate
- F) Angiotensin-I Calibrators
- G) Controls
- H) Assay Buffer
- I) Wash Buffer Concentrate
- J) TMB Substrate
- K) Stopping Solution

Components A), B) and K) are hazardous mixtures according to CLP Regulation (EC) as amended.

Safety Data Sheets for these components according to actual Regulations (EC/EU) are attached. The other components do not contain any hazardous mixture according to CLP Regulation (EC) as amended.

EUH208 Wash Buffer Concentrate contains 2-Methyl-3-isothiazolone. May produce an allergic reaction.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

Generation Buffer

Date of issue: 23.10.2020

Supersedes date:

SECTION 1 IDENTIFICATION OF THE PREPARATION AND OF COMPANY/UNDERTAKING

1.1 Product identifier

Product name: Generation Buffer

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

Relevant identified uses: to be used as a component with ELISA kits according to the instructions provided with the kit.

1.3 Company identification:

BioVendor - Laboratorní medicína a.s.

Karásek 1767/1 621 00 Brno Czech Republic

Identification number: 63471507

Tel: +420 549 124 185 E-mail: info@biovendor.com

1.4 Emergency telephone number:

Toxicology information centre, Na Bojišti 1, 128 21 Prague, Czech Republic, Tel: +420 224 919 293 or +420 224 915 402 (non-stop service).

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification according to the regulation (EC) No. 1272/2008 (CLP) and its amendments

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2 Label elements according to the regulation (EC) No. 1272/2008 (CLP) and its amendments

Danger symbol

Signal word Danger

Hazard Statement H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if

inhaled.

Prevention statements P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

protection.

P285 In case of inadequate ventilation wear respiratory protection.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

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Response statements P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh

air and keep at rest in a position comfortable for breathing.

P342+P311 If experiencing respiratory symptoms: Call a POISON

CENTER or doctor/physician.

Storage statements P402+P404 Store in a dry place. Store in a closed container.

Disposal statements P501 Dispose of contents and container in accordance with all local,

regional, national and international regulations.

2.3 Other hazards:

Results of PBT and vPvB evaluation:

See section 12.5 for more detailed information on PBT and vPvB.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Ingredient	CAS No	EC No	REACH No	Wt. %	Class
					Acute Tox. 4 H302
					Skin Irrit. 2 H315
					Skin Sens. 1 H317
					Eye Irrit. 2 H319
Maleic acid	110-16-7	203-742-5	Not available.	1 - 5	STOT SE 3 H335
					Skin Sens. 1 H317
Neomycin sulfate	1405-10-3	215-773-1	Not available.	0.5 - 1.5	Resp. Sens. 1 H334

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

least 15 minutes. If easy to do, remove contact lenses, if worn. Get

medical attention immediately.

Following skin contact In case of contact, immediately flush skin with plenty of water. Remove

contaminated clothing and shoes. Wash clothing before reuse. Call a

physician if irritation develops and persists.

Following inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration.

If breathing is difficult, give oxygen. Get immediate medical

advice/attention.

Following ingestion
If swallowed, do NOT induce vomiting unless directed to do so by

medical personnel. Never give anything by mouth to an unconscious

person. Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact May cause eye irritation. Symptoms may include discomfort or pain,

excess blinking and tear production, with marked redness and swelling

of the conjunctiva.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

Generation Buffer

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Skin contact Causes sensitization by skin contact. Symptoms may include redness,

edema, drying, defatting and cracking of the skin.

Inhalation Harmful by inhalation. Causes respiratory sensitization. Symptoms:

vapours may cause drowsiness and dizziness.

Ingestion May be harmful if swallowed. May cause stomach distress, nausea or

vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians Symptoms may not appear immediately.

Specific treatments In case of accident or if you feel unwell, seek medical advice

immediately (show the label or SDS where possible).

SECTION 5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media Treat for surrounding material.

Unsuitable extinguishing media None known.

5.2 Special hazards arising from the substance or mixture

Products of combustion May include and are not limited to: oxides of carbon.

5.3 Advice for firefighters

Protection of firefighters Keep upwind of fire. Wear full fire fighting turn-out gear

(full bunker gear) and respiratory protection.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Avoid any contact with the skin and eyes. Do not breathe vapour or mist.

6.2 Environmental precautions

Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

6.3 Methods and material for containment and cleaning up

Methods for containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning-up: Scoop up material and place in a disposal container. Provide ventilation.

6.4 Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

Generation Buffer

Date of issue: 23.10.2020

Supersedes date:

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Users should have a thorough understanding how to use this product. Do not breathe gas/fumes/vapor/spray. Do not get in eyes, on skin, or on clothing. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. (See section 8).

Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of the reach of children. Keep container tightly closed. Product should be at room temperature and mixed gently but thoroughly before use. Do not use any component beyond the expiration date printed on the label. Unused chemicals should not be returned to the container. (See section 10).

7.3 Specific end use(s)

No data available.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Not available

8.2 Exposure controls

Appropriate engineering controls:

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

<u>Eye/face protection:</u> Wear approved eye (properly fitted dust- or splash-proof chemical safety goggles) / face (face shield) protection.

<u>Skin/body protection:</u> Wear solvent resistant gloves. Wear suitable protective clothing, including appropriate boots, boot covers, overshoes, etc., as may be appropriate.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

General health & safety measures:

Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

Environmental exposure controls:

Handle in accordance with good industrial hygiene and safety practice.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Not available
Color Not available
Odour Not available
Odour threshold Not available
Physical state Liquid

pH Not available



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

Generation Buffer

Date of issue: 23.10.2020 Supersedes date:

Melting point Not available Boiling point Not available Flash point Not available **Evaporation rate** Not available Flammability Not flammable Lower flammability/Explosive limit Not available Upper flammability/Explosive limit Not available Vapor pressure Not available Vapor density Not available Relative density Not available Solubility Not available Partition coefficient: n-octanol/water Not available Auto-ignition temperature Not available Decomposition temperature Not available Viscosity Not available Explosive properties Not available Oxidizing properties Not available

9.2 Other information

No data available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Heat. incompatible materials.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

May include and are not limited to: oxides of carbon.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Likely routes of exposure: Skin contact, skin absorption, eye contact, inhalation, and ingestion.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

Generation Buffer

Date of issue: 23.10.2020 Supersedes date:

Acute Health Effects:

Eye contact May cause eye irritation. Symptoms may include discomfort or

pain, excess blinking and tear production, with marked redness

and swelling of the conjunctiva.

Skin contact Cause sensitization by skin contact. Symptoms may include

redness, edema, drying, defatting and cracking of the skin.

Ingestion May be harmful if swallowed. May cause stomach distress,

nausea or vomiting.

Inhalation Harmful by inhalation. Causes respiratory sensitization.

Symptoms: vapours may cause drowsiness and dizziness.

Acute toxicity Maleic acid LC50 -Inhalation Rat >0.72 mg/L 1 h

LD50 - Oral Rat 708 mg/kg; Dermal

Rabbit 1560 mg/kg

Neomycin sulfate LD50 - Oral Mouse >8 g/kg

Skin corrosion/irritation May cause skin irritation.
Serious eye damage/irritation May cause eye irritation.

Respiratory or skin sensitization May cause skin and respiratory sensitization.

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.

Chronic health effects

Carcinogenicity

Germ cell mutagenicity

This product is not classified as a carcinogen.

This product is not classified as a mutagen.

This product is not classified as a mutagen.

Developmental This product does not contain known reproductive or

developmental toxins.

Fertility No known significant effects or critical hazards.

Aspiration hazard Not expected to occur.

Other Information Not available.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

May cause long-term adverse effects in the aquatic environment

Maleic acid 96 h LC50 Pimephales promelas: 5 mg/L (static)

48 h EC50 Daphnia magna: 250-400 mg/L

12.2 Persistence and degradability

Not available.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

Generation Buffer

Date of issue: 23.10.2020

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12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Not available.

12.5 Results of PBT and vPvB assessment

PBT results There are no indications that this product contains substances likely to be

classified as PBT.

vPvB results There are no indications that this product contains substances likely to be

classified as vPvB.

12.6 Other adverse effects

Not available.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

13.2 Waste code numbers/Waste identification

No data available.

SECTION 14 TRANSPORT INFORMATION

ADR / ADN/ADNR / IMDG / ICAO

UN number Not regulated
UN proper shipping name Not applicable
Transport hazard class(es) Not applicable
Packing group Not applicable
Environmental hazards Not available

Special precautions for user Do not handle until all safety precautions have been read and

understood

Transport in bulk according to AnnexII of MARPOL73/78

and the IBC Code Not available
Other information Not available

SECTION 15 REGULATORY INFORMATION

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

Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended. Implemented regulations to Act No. 350/2011 Coll., as amended. The Waste Act as amended. Government Decree No. 361/2007 Coll., to regulate the conditions



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

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Date of issue: 23.10.2020 Supersedes date:

of occupational health and safety, as amended. Regulation of the European Parliament and the Council (EC) No. 1907/2006 (REACH). Regulation of the European Parliament and the Council (EC) No. 1272/2008 (CLP). Commission Regulation (EU) No. 830/2015.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this product.

SECTION 16 OTHER INFORMATION

16.1 Indication of changes (Additions, Deletions, Revisions)

Date of issue: 23.10.2020

Supersedes date:

Key or legend to abbreviations and acronyms

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on

inland waterways.

ADR/RID: European Agreement concerns the International Carriage of Dangerous Goods

by Road/ Regulations concerning the international carriage of dangerous goods

by rail.

CAS No.: Chemical Abstract Service Number CLP: Classification, Labelling and Packaging

16.2 List of relevant hazard statements

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Note:

The safety data sheet contains data necessary for ensuring occupational health and safety and protection of the environment. The given data correspond to the current state of knowledge and experience and comply with valid legal regulations. The data cannot be considered a guarantee that the specific use of the product will be appropriate.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

PMSF

Date of issue: 26.10.2020

Supersedes date:

SECTION 1 IDENTIFICATION OF THE PREPARATION AND OF COMPANY/UNDERTAKING

1.1 Product identifier

Product name: PMSF

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

Relevant identified uses: to be used as a component with ELISA kits according to the instructions provided with the kit.

1.3 Company identification:

BioVendor - Laboratorní medicína a.s.

Karásek 1767/1 621 00 Brno Czech Republic

Identification number: 63471507

Tel: +420 549 124 185 E-mail: info@biovendor.com

1.4 Emergency telephone number:

Toxicology information centre, Na Bojišti 1, 128 21 Prague, Czech Republic, Tel: +420 224 919 293 or +420 224 915 402 (non-stop service).

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification according to the regulation (EC) No. 1272/2008 (CLP) and its amendments

Acute Tox. 3 H301 Toxic if swallowed.

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

Eye Dam. 1 H318 Causes serious eye damage.

2.2 Label elements according to the regulation (EC) No. 1272/2008 (CLP) and its amendments

Danger symbol

Signal word

Danie

Danger

Hazard Statement H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Prevention statements P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

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

protection.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

PMSF

Date of issue: 26.10.2020

Supersedes date:

Response statements P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or

doctor/physician. P330 Rinse mouth.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately

all contaminated clothing. Rinse skin with water/shower.

P310 Immediately call a POISON CENTER or doctor/physician.

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

rinsing

Storage statements P403+P233 Store in a well-ventilated place. Keep container tightly

closed.

Disposal statements P501 Dispose of contents and container in accordance with all local,

regional, national and international regulations.

2.3 Other hazards:

Results of PBT and vPvB evaluation:

See section 12.5 for more detailed information on PBT and vPvB.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Ingredient	CAS No	EC No	REACH No	Wt. %	Class	
Benzenemethanesulf					Acute Tox. 3 H301	
onyl fluoride	329-98-6	206-350-2	Not available.	60 - 100	Skin Cor. 1B H314	

Full text of H- phrases: see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

Following eye contact In case of contact, immediately flush eyes with plenty of water for at

least 15 minutes. If easy to do, remove contact lenses, if worn. Get

medical attention immediately.

Following skin contact Flush contaminated skin with plenty of water. Continue to rinse for at

least 20 minutes. Get medical attention if symptoms occur. Chemical

burns must be treated promptly by a physician.

Following inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration.

If breathing is difficult, give oxygen. Get medical advice/attention.

Following ingestion
If swallowed, do NOT induce vomiting unless directed to do so by

medical personnel. Never give anything by mouth to an unconscious

person. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact Causes burns. Severe irritation, redness and pain. Symptoms may

include discomfort or pain, excess blinking and tear production, with

possible redness and swelling.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

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Skin contact Causes burns. Symptoms may include redness, pain and blisters.

Inhalation May be harmful by inhalation. Irritating to respiratory tract. Vapours may

cause drowsiness and dizziness.

Ingestion Harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians Symptoms may not appear immediately.

Specific treatments In case of accident or if you feel unwell, seek medical advice

immediately (show the label or SDS where possible).

SECTION 5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media Powder, foam, carbon dioxide.

Unsuitable extinguishing media None known.

5.2 Special hazards arising from the substance or mixture

Products of combustion May include and are not limited to: oxides of carbon,

halogenated compounds.

5.3 Advice for firefighters

Protection of firefighters Keep upwind of fire. Wear full fire fighting turn-out gear

(full bunker gear) and respiratory protection.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Avoid any contact with the skin and eyes.

6.2 Environmental precautions

Keep out of drains, sewers, ditches, and waterways Minimize use of water to prevent environmental contamination.

6.3 Methods and material for containment and cleaning up

Methods for containment: Pick up large pieces, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE). Methods for cleaning-up: Scoop up material and place in a disposal container. Provide ventilation.

6.4 Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Users should have a thorough understanding how to use this product. Do not breathe gas/fumes/vapor/spray. Do not get in eyes, on skin, or on clothing. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. (See section 8).



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

PMSF

Date of issue: 26.10.2020

Supersedes date:

Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of the reach of children. Keep container tightly closed. Product should be at room temperature and mixed gently but thoroughly before use. Do not use any component beyond the expiration date printed on the label. Store in an appropriate container. Unused chemicals should not be returned to the container. (See section 10).

7.3 Specific end use(s)

No data available.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 **Control parameters**

Not available

8.2 **Exposure controls**

Appropriate engineering controls:

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Eye/face protection: Wear approved eye (properly fitted dust- or splash-proof chemical safety goggles) / face (face shield) protection.

Skin/body protection: Wear solvent resistant gloves. Wear suitable protective clothing, including appropriate boots, boot covers, overshoes, etc., as may be appropriate.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

General health & safety measures:

Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

Environmental exposure controls:

Handle in accordance with good industrial hygiene and safety practice.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Not available Color Not available Odour Not available Odour threshold Not available

Physical state Solid

pН Not available ~ 92 °C Melting point **Boiling point** Decomposes Flash point Not available Evaporation rate Not available Flammability Not flammable Lower flammability/Explosive limit Not available



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

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Date of issue: 26.10.2020

Supersedes date:

Upper flammability/Explosive limit Not available Vapor pressure Not available Vapor density Not available Relative density Not available Solubility Not available Partition coefficient: n-octanol/water Not available Auto-ignition temperature Not available Decomposition temperature Not available Not available Viscosity Explosive properties Not available Oxidizing properties Not available

9.2 Other information

No data available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Heat. incompatible materials.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

May include, and are not limited to: oxides of carbon, halogenated compounds.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Likely routes of exposure: Skin contact, eye contact, inhalation, and ingestion.

Acute Health Effects:

Eye contact Causes burns. Severe irritation, redness and pain. Symptoms

may include discomfort or pain, excess blinking and tear

production, with possible redness and swelling.

Skin contact Causes burns. Symptoms may include redness, pain and

blisters.

Ingestion Harmful if swallowed. May cause stomach distress, nausea or

vomiting.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

PMSF

Date of issue: 26.10.2020

Supersedes date:

Inhalation May be harmful by inhalation. Irritating to respiratory tract.

Vapours may cause drowsiness and dizziness.

Acute toxicity Benzenemethanesulfonyl fluoride Oral Mouse 200 mg/kg

Skin corrosion/irritation Causes burns.

Serious eye damage/irritation Risk of serious damage to eyes.

Respiratory or skin sensitization May cause skin and respiratory sensitization.

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.

Chronic health effects

Carcinogenicity

Germ cell mutagenicity

This product is not classified as a carcinogen.

This product is not classified as a mutagen.

This product is not classified as a mutagen.

Developmental This product does not contain known reproductive or

developmental toxins.

Fertility No known significant effects or critical hazards.

Aspiration hazard Not expected to occur.

Other Information Not available.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

May cause long-term adverse effects in the aquatic environment

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Not available.

12.5 Results of PBT and vPvB assessment

classified as PBT.

vPvB results There are no indications that this product contains substances likely to be

classified as vPvB.

12.6 Other adverse effects

Not available.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

PMSF

Date of issue: 26.10.2020

Supersedes date:

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

13.2 Waste code numbers/Waste identification

No data available.

SECTION 14 TRANSPORT INFORMATION

ADR / ADN/ADNR / IMDG / ICAO

UN number UN2928

UN proper shipping name Toxic solid, corrosive, organic, n.o.s. (Benzenemethanesulfonyl

fluoride)

Transport hazard class(es) 6.1(8)

Packing group II

Environmental hazards Not available

Special precautions for user Do not handle until all safety precautions have been read and

understood

Transport in bulk according

to AnnexII of MARPOL73/78

and the IBC Code Not available
Other information Not available

SECTION 15 REGULATORY INFORMATION

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

Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended. Implemented regulations to Act No. 350/2011 Coll., as amended. The Waste Act as amended. Government Decree No. 361/2007 Coll., to regulate the conditions

of occupational health and safety, as amended. Regulation of the European Parliament and the Council (EC) No. 1907/2006 (REACH). Regulation of the European Parliament and the Council (EC) No. 1272/2008 (CLP). Commission Regulation (EU) No. 830/2015.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this product.

SECTION 16 OTHER INFORMATION

16.1 Indication of changes (Additions, Deletions, Revisions)

Date of issue: 26.10.2020

Supersedes date:



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

PMSF

Date of issue: 26.10.2020

Supersedes date:

Key or legend to abbreviations and acronyms

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on

inland waterways.

ADR/RID: European Agreement concerns the International Carriage of Dangerous Goods

by Road/ Regulations concerning the international carriage of dangerous goods

by rail.

CAS No.: Chemical Abstract Service Number CLP: Classification, Labelling and Packaging

16.2 List of relevant hazard statements

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Note:

The safety data sheet contains data necessary for ensuring occupational health and safety and protection of the environment. The given data correspond to the current state of knowledge and experience and comply with valid legal regulations. The data cannot be considered a guarantee that the specific use of the product will be appropriate.



in accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015

Stopping Solution

Date of issue: 23.10.2020

Supersedes date:

SECTION 1 IDENTIFICATION OF THE PREPARATION AND OF COMPANY/UNDERTAKING

1.1 Product identifier

Product name: Stopping Solution

Additional identification: Sulphuric Acid < 10%

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

Relevant identified uses: to be used as a component with ELISA kits according to the instructions

provided with the kit.

Uses advised against: not available

1.3 Company identification:

BioVendor - Laboratorní medicína a.s.

Karásek 1767/1 621 00 Brno Czech Republic

Identification number: 63471507

Tel: +420 549 124 185 E-mail: <u>info@biovendor.com</u>

1.4 Emergency telephone number:

Toxicology information centre, Na Bojišti 1, 128 21 Prague, Czech Republic, Tel: +420 224 919 293 or +420 224 915 402 (non-stop service).

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification according to the regulation (EC) No. 1272/2008 (CLP) and its amendments

Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements according to the regulation (EC) No. 1272/2008 (CLP) and its amendments

Danger symbol

Signal word Warning

Product Identifier Sulphuric Acid < 10% w/w
Danger H315 Causes skin irritation.

H319 Causes serious eye irritation.

Supplemental Hazard

Information

Prevention statements P264 Wash exposed skin thoroughly after handling.

P280 Wear protective gloves, protective clothing, eye protection, face

protection.



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P302+P350 IF ON SKIN: Gently wash with plenty of soap and water. Response statements

P332+P313 If skin irritation occurs: Get medical advice/attention.

P305+P351+P338 If in eyes: Rinse cautiously with water for several

minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Storage statements

Disposal statements P501 Dispose of contents/container to comply with local, state and

federal regulations.

2.1 Other hazards:

Results of PBT and vPvB evaluation:

PBT: Not applicable vPvB: Not applicable

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	(% w/w)	Classification	Specific concentration limits
Sulfuric acid%* CAS: 7664-93-9 EC: 231-639-5 Index number: 016-020-00-8	< 10%	Skin Corr. 1A, H314	Skin Corr. 1A; H314: C ≥ 15% Eye Irrit. 2; H319: 5% ≤ C < 15% Skin Irrit. 2; H315: 5% ≤ C < 15%

*Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ...%'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

General information In general, in case of doubt or if symptoms persist, always call a doctor.

Never give anything by mouth to an unconscious person.

Following inhalation If person experiences nausea, headache or dizziness, person should

stop work immediately and move to fresh air until these symptoms disappear. If breathing is difficult, administer oxygen by a qualified person, keep the person warm and at rest. Call a physician. In the event that an individual inhales enough vapour to lose consciousness, person should be moved to fresh air at once and a physician should be called immediately. If breathing has stopped, artificial respiration should be given immediately. In all case, ensure adequate ventilation and provide

respiratory protection before the person returns to work.

Following skin contact IF ON SKIN (or hair): Remove contaminated clothing. Rinse skin with

water / with vegetable oil. Take a shower.

If irritation or rash occurs: Get medical advice.



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Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Following ingestion IF SWALLOWED: Rinse thoroughly mouth with water. Immediately call

a POISON CENTER/doctor.

Do NOT induce vomiting.

For emergency resp. No data available.

SECTION 5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media

<u>Appropriated:</u> Use water spray or other suitable agent on fires adjacent to nonleaking tanks or intact containers of acid. If only a small amount of combustibles is present, smother fire with dry chemical.

Small fire: Dry powder or CO₂. Move containers from fire area, if it can be done without risk.

Large fire: Flood fire area with large quantities of water, while knocking down vapours with water fog. Cool containers with flooding quantities of water until well after fire is out. Do not get water inside containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

Non-appropriated: Do not use solid water streams near ruptured tanks or spills of sulfuric acid.

5.2 Special hazards arising from the substance or mixture

Acid reacts violently with water and can spatter acid onto personnel.

Reacts with most metals, especially when diluted: Hydrogen gas release, which is extremely flammable and explosive. Risk of explosion if acid combines with water, organic materials or base solutions in enclosed spaces. Mixing acids of different strengths/concentrations can also pose an explosive risk in an enclosed space/container.

5.3 Advice for firefighters

Add chemical safety goggles if eye protection is not provided. Wear full protective clothing. Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear full protective clothing. Neutralize run-off with lime, soda ash, to prevent corrosion of metals and formation of hydrogen gas. Wear self-contained breathing apparatus if fumes or mists are present.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate all personnel from danger area.

Use required personal protective equipment.

Remove sources of ignition.

DO NOT smoke.

Stop flow if possible.

6.2 Environmental precautions

Avoid release to the environment.

Avoid contamination of drains, surface water and groundwater.



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6.3 Methods and material for containment and cleaning up

SMALL SPILL: Soak up with dry sand, clay or diatomaceous earth.

LARGE SPILL: Dike. Cautiously dilute and neutralize with lime or soda ash. Adequate ventilation is required during neutralization due to release of CO₂ gas. Transfer to waste water treatment system. Prevent liquid from entering sewers, waterways. Product not recovered or sent as waste for treatment should be reported to authorities.

6.4 Reference to other sections

Refer to sections: 7 safe handling, 8 for personal protective equipments, 13 for disposal.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

DO NOT get in eyes, on skin, or on clothing.

DO NOT ingest: Avoid breathing vapours or mist.

Wear approved respirators if ventilation is not adequate.

No eating, drinking and smoking when handling the product.

Wash hands thoroughly after handling.

NEVER add water to acid.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated area, away from incompatible substances. Protect from physical damage.

Keep out of sun and away from heat (more than 275°C).

If stored in metal containers, vapours can contain explosive hydrogen gas.

Do not smoke in storage area.

7.3 Specific end use(s)

No data available.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Components with critical values that require monitoring at the workplace:

Sulphuric acid:

Limit value (8h): 1 mg/m³

Limit value (Short term): 3 mg/m³

8.2 Exposure controls

Appropriate engineering controls:

Good general ventilation should be provided to keep vapour and mist concentrations below the exposure limits.

<u>Eye/face protection:</u> Wear safety glasses with non-perforated shields. Add a face shield (close-fitting) if pouring liquid. For leak, spills emergency or heavy handling, use chemical safety goggles or a full face shield. Do not wear contact lenses.



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Respiratory protection: Not required when using a closed ventilation system. If acid concentration is above 1 mg/m³, wear a gas mask with acid gas canister equipped with particulate filter. If the concentration is higher than 10 mg/m³, use an efficiency particulate respirator, or self-contained breathing apparatus with full face piece.

Other: Wear acid resistant gloves (preferably rubber), boots; long sleeve wool, acrylic, or polyester clothing under an acid proof suit. Trouser legs should be outside boots. An apron can be used in place of acid proof suit in laboratory environment, or in handling small volumes of sulphuric acid. In case of emergency, wear a complete acid suit with hood, boots, and gloves with respiratory protection.

Environmental exposure controls: Avoid release to the environment.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state Viscous Liquid (Sulphuric Acid)
Colour Colourless to slightly yellow

Odour Not available
Odor threshold Not available

pH <1
Melting / Freezing point -14°C
Boiling point 308°C

Flash point Not applicable

Evaporation rate <1

Flammability Not available
Lower limit of flammability or explosive Not applicable
Upper limit of flammability or explosive Not applicable

Vapour pressure <0.001 mmHg @ 20°C

Vapour density 3.4 (air = 1)Relative density 1.84 Water solubility Miscible Solubility in other Solvents Not available Not available Log Kow Auto-inflammability temperature Not applicable Decomposition temperature Not available Not available Viscosity Explosive properties Not available Oxidizing properties Not available Refractive index Not available

9.2 Other information

No data available.



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SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

Reacts violently with water, organic substances and base solutions with evolution of heat.

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Under normal conditions of stock and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Not available.

10.5 Incompatible materials

Vigorous reactions with: water, alkaline solutions, metals, carbides, chlorates, fulminates, nitrates, picrates, strong oxidizing, reducing or combustible organic materials. Hazardous gases are evolved on contact with chemicals such as cyanides, sulfides and carbides.

10.6 Hazardous decomposition products

Temperatures of ≥ 275°C yield sulphur trioxide gas, which is toxic, corrosive and an oxidizer

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity	Highly toxic.	Erosion of	teeth.	lesions	of the	skin,	bronchitis.

mouth inflammation, conjunctivitis, gastritis.

LD50 (rat-oral) = 2140 mg/kg

LC50 (mouse-ihl) = 160 mg/m 3 (4hrs) LC50 (rat-ihl) = 255 mg/m 3 (4 hrs)

Inhalation Highly toxic by inhalation of fumes or acid mist. Causes

irritations or corrosive burns to the upper respiratory system, including nose, mouth, and throat. Lung irritation and pulmonary

edema can also occur.

Ingestion Can cause irritation and corrosive burns to mouth, throat, and

stomach. Can be fatal if swallowed. Risk of vomiting, diarrhea,

oesophagus and stomach perforation.

Skin corrosion Can cause severe burns and destruction of tissue. May cause

destruction of the dermis with impairment of the skin at site of

contact to regenerate.

Eye damage Extremely corrosive! Liquid contact causes irritation, corneal

burns, and conjunctivitis. Blindness may result, or severe or

permanent injury. Mist contact may irritate or burn.

Respiratory sensibilisation Not available.

Germ cell mutagenicity

Not identified as a mutagen.

Carcinogenicity

Suspected in humans.

Toxic for reproduction Not identified as toxic for reproduction.

Unique specific toxicity

Repeated specific toxicity

Not available.

Not available.



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Aspiration hazard Not available.

Other information Practical experience: none.

General notes: The classification was made according to the calculation procedure of the preparation and harmonized

classification.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to aquatic life increases with lowering of pH.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Sulphate ion: Ubiquitous in the environment. Metabolized by micro-organisms and plants without bioaccumulation.

12.4 Mobility in soil

Easy soil seeping under rain action.

12.5 Results of PBT and vPvB assessment

Not available.

12.6 Other adverse effects

Due to the product's composition, particular attention must be taken for transportation and storage. Protect from rain because the run-off water will become acidic and may be harmful to flora and fauna.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Do not use the empty containers.

Waste disposal according to the Directives EC 75/442/EEC and 91/689/EEC in their latest versions by incineration or dispose of waste material.

13.2 Waste code numbers/Waste identification

No data available.

SECTION 14 TRANSPORT INFORMATION

ADR / ADN/ADNR / IMDG / ICAO

UN number Not applicable
UN proper shipping name Not applicable
Transport hazard class(es) Not applicable
Packing group Not applicable
Environmental hazards Not available



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Hazard label Not applicable
Classification code Not applicable
Special precautions for user Not available

Transport in bulk according to AnnexII of MARPOL73/78

and the IBC Code Not available
Other information Not available

SECTION 15 REGULATORY INFORMATION

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

Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended. Implemented regulations to Act No. 350/2011 Coll., as amended. The Waste Act as amended. Government Decree No. 361/2007 Coll., to regulate the conditions of occupational health and safety, as amended. Regulation of the European Parliament and the Council (EC) No. 1907/2006 (REACH). Regulation of the European Parliament and the Council (EC) No. 1272/2008 (CLP). Commission Regulation (EU) No. 830/2015.

15.2 Chemical safety assessment

No data available

SECTION 16 OTHER INFORMATION

16.1 Indication of changes (Additions, Deletions, Revisions)

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Key or legend to abbreviations and acronyms

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on

inland waterways.

ADR/RID: European Agreement concerns the International Carriage of Dangerous Goods

by Road/ Regulations concerning the international carriage of dangerous goods

by rail.

CAS No.: Chemical Abstract Service Number
CLP: Classification, Labelling and Packaging

16.2 Key literature references and sources for data

No data available.

16.3 Procedure used to derive the classification according to regulation (EC) No. 1272/2008 (CLP)

Classification of the mixture is consistent with the method of valuation of regulation (EC) No. 1272/2008.



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16.4 List of relevant hazard statements and/or precautionary statements (Full text of any statements which are not written out in full under section 3).

Hazard statements (H):

H314 Causes severe skin burns and eye damage.

16.5 Advice on any training appropriate for workers to ensure protection of human health and the environment

No data available

Note:

The safety data sheet contains data necessary for ensuring occupational health and safety and protection of the environment. The given data correspond to the current state of knowledge and experience and comply with valid legal regulations. The data cannot be considered a guarantee that the specific use of the product will be appropriate.