The RDM0012H hsa-miR-24-3p miREIA is an enzyme immunoassay for the quantitative measurement of human microRNA-24-3p.

The kit measures hsa-miR-24-3p isolated from human blood and cell culture lysates.

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) DNA Probe Conc. (50x)
B) Master Standard
C) Quality Control
D) Antibody Coated Microtiter Strips
E) Streptavidin-HRP Conjugate
F) RNase Inhibitor Conc. (500x)
G) Dilution Buffer
H) Wash Solution Conc. (10x)
I) Substrate Solution
J) Stop Solution

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

The other components do not contain any hazardous mixture according to CLP Regulation (EC) as amended.

Safety Data Sheet for DNA Probe Conc. (50x), RNase Inhibitor Conc. (500x), Dilution Buffer and Stop Solution according to actual Regulations (EC/EU) are attached.
SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name: DNA Probe Conc. (50x) (K00121)
Catalogue number: K00121
Additional identification: DNA Probe Conc. (50x) with ProClin 300 (contains mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1), with C = 0.005%)

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

miREIA kit DNA Probe with ProClin 300 used as the preservative.

1.3 Details of the supplier of the safety data sheet

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 of the substance or mixture

Classification according to Regulation 1272/2008/EC:
Solution containing 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1) 0.0015 ≤ C < 0.06% is considered hazardous according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Hazard pictogram:

Signal word: Warning

Hazard statement: H317 May cause an allergic skin reaction.

Precautionary statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray,
P264 Wash hands thoroughly after handling,
P272 Contaminated work clothing should not be allowed out of the workplace,
DNA Probe Conc. (50x) (K00121)

Date of issue: 3.10.2018
Supersedes date:

P280 Wear protective gloves/protective clothing/eye protection/face protection,
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 Supplemental hazards statements
None

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures
Description: DNA Probe contains 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1), C = 0,005%

Ingredient
5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)
Conc. % CAS-Nr. Index-Nr.
< 0.06 55965-84-9 613-167-00-5

Classification according to regulation 1272/2008/EC:
Skin Sens. 1, H317
Specific concentration limits: Skin Corr. 1B, H314: C≥0,6 %; Skin Irrit. 2, H315: 0,06 %≤C<0,6 %; Eye Irrit. 2, H319: 0,06 %≤C<0,6 %; Skin Sens. 1, H317: C≥0,0015 %., EUH208: C≥0,00015 %

For full text of H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures
If in eyes: Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.
If on skin (or hair): Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician.

SECTION 5 FIREFIGHTING MEASURES

5.1 Suitable extinguishing agents
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special precautions for fire-fighters
Self contained breathing apparatus and full protective clothing must we worn in case of fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Person-related safety precautions
Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
6.2 **Measures for environmental protection**
Keep away from drains.

6.3 **Measures for containment and cleaning**
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### SECTION 7 HANDLING AND STORAGE

7.1 **Precautions for safe handling:**
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use normal measures for preventive fire protection.

7.2 **Conditions for safe storage:**
Store in a cool and dry place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 **Control parameters**
Contains no substances with occupational exposure limit values.

8.2 **Individual protection measures**
Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

   a) **Eye/face protection:** Wear approved safety goggles.
   
   b) **Skin/hand protection:** Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
   
   c) **Body protection:** Wear suitable protective clothing as protection against splashing or contamination.
   
   d) **Other skin protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.
   
   e) **Respiratory protection:** In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Information on basic physical and chemical properties**
- **Appearance:** Clear Liquid
- **Odour:** Not available
- **Odour threshold:** Not available
- **pH:** Neutral
- **Melting point/freezing point:** Not available
**Boiling point/Boiling range:** Not available
**Flash point:** Not available
**Evaporation rate:** Not available
**Flammability (solid, gas):** Not available
**Upper/lower flammability or explosive limits:** Not available
**Vapor density:** Not available
**Vapor pressure:** Not available
**Relative density:** Not available
**Solubility in/Miscibility with Water:** Soluble
**Partition coefficient: n-octanol/water:** Not available
**Auto igniting:** Not available
**Decomposition temperature:** Not available
**Viscosity:** Not available

### SECTION 10  STABILITY AND REACTIVITY

10.1 **Chemical Stability**
Stable under recommended storage conditions.

10.2 **Conditions to avoid**
Strong oxidizing agents, reducing agents, Amines, Mercaptans

10.3 **Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions – Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas.

### SECTION 11  TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects**

**Acute toxicity:**
- LD50 Oral – rat – 862 mg/kg
- LD50 Dermal – rabbit- 2800 mg/kg

**Skin corrosion/irritation:** Can cause severe burns. Skin – rabbit – Corrosive

**Serious eye damage/irritation:** Rabbit – Corrosive to eyes

**Respiratory or skin sensitization:** May cause allergic skin reaction.

**Germ cell mutagenicity:** No data available

**Carcinogenicity:** No data available

**Reproductive toxicity:** No data available

**Specific target organ toxicity (STOT) -single exposure:** No data available
DNA Probe Conc. (50x) (K00121)  
Date of issue: 3.10.2018  
Supersedes date:

Specific target organ toxicity (STOT) -repeated exposure: No data available  
Aspiration hazard: Can cause severe burns.  
Information on likely routes of exposure: Routes of entry anticipated; oral, dermal, inhalation.  

Symptoms related to the physical, chemical and toxicological characteristics:  
Inhalation: Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.  
Ingestion: Harmful if swallowed. Causes burns.  
Skin contact: Harmful if absorbed through skin. Causes burns.  
Eye contact: Causes eye burns.  

Delayed and immediate effects and also chronic effects from short and long term exposure:  
Short term exposure: Potential immediate effects: Not available. Potential delayed effects: Not available.  

Effects of chronic exposure:  
ProClin 300 at levels greater than or equal to 0.1% is not identified as probable, possible or a confirmed human carcinogen by IARC.  

Numerical measures of toxicity:  
Not available.  
Other Information:  
Not available.

SECTION 12 ECOCLOGICAL INFORMATION

12.1 Ecotoxicity  
No data available.  

12.2 Biodegradability  
No data available.  

12.3 Bioaccumulative potential  
No data available.  

12.4 Mobility in soil  
No data available.  

12.5 Other adverse effects  
Toxic to aquatic organisms.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Disposal methods  
Dispose of waste in accordance to applicable national, regional, or local regulations.  

13.2 Contaminated packaging  
Dispose in the same manner as unused product.
13.3 Special precautions
Disperse of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilled material to soil, waterways, drains and sewers.

SECTION 14 TRANSPORT INFORMATION

14.1 UN Number: None
14.2 DOT regulations, Hazard class: None
14.4 Maritime transport IMDG: Not regulated.
14.5 Marine pollutant: No
14.6 Air transport ICAO-TI and IATA-DGR: Not regulated.
14.7 Transport/Additional information: Not dangerous according to the above specifications.

SECTION 15 REGULATORY INFORMATION

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

SECTION 16 OTHER INFORMATION

Date of issue: 3.10.2018
Supersedes date:

Full text of H-Statements
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.

Advice on training
Workers shall receive appropriate training to acquaint them with the recommended use, mandatory protective equipment, first aid measures and banned manners of handling the mixture.

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

RNase Inhibitor Conc. (500x)  
Date of issue: 19.9.2017  
Supersedes date:

SECTION 1  IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier
   Trade name: RNase Inhibitor Conc. (500x)  
   Catalogue number: K03

1.2 Relevant identified uses of the substance or mixture and uses advised against
   miREIA kit RNase inhibitor

1.3 Details of the supplier of the safety data sheet
   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 of the substance or mixture
   Classification according to Regulation 1272/2008/EC:
   Flammable liquids (Category 3), H226  
   Skin irritation (Category 2), H315  
   Eye irritation (Category 2), H319

   For full text of and H-phrases see section 16.

2.2 Label elements
   Hazard pictograms:

   ![Hazard Pictograms]

   Signal word:
   Warning

   Hazard statement:
   H226 Flammable liquid and vapour.  
   H315 Causes skin irritation.  
   H319 Causes serious eye irritation.

   Precautionary statement:
   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
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Conc. in w/w%</th>
<th>EINECS</th>
<th>CAS-Nr.</th>
<th>Index-Nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>≥ 20 – &lt; 30 %</td>
<td>200-578-6</td>
<td>64-17-5</td>
<td>603-002-00-5</td>
</tr>
</tbody>
</table>

Classification according to regulation 1272/2008/EC:
Flam. Liq. 2; Eye Irrit. 2; H225, H319
Concentration limits: >= 50 %: Eye Irrit. 2A, H319;

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Conc. in w/w%</th>
<th>EINECS</th>
<th>CAS-Nr.</th>
<th>Index-Nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triammonium 5,5’-(3-carboxylato-4-oxocyclohexa-2,5-dienylidenemethylene)disalicylate</td>
<td>≥ 20 – &lt; 30 %</td>
<td>209-319-1</td>
<td>569-58-4</td>
<td>—</td>
</tr>
</tbody>
</table>

Classification according to regulation 1272/2008/EC:
Skin Irrit. 2; Eye Irrit. 2; H315

For full text of and H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Nitrogen oxides (NOx)
5.3 **Advice for firefighters**
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 **Further information**
Use water spray to cool unopened containers.

### SECTION 6  ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

#### 6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

#### 6.4 Reference to other sections
For disposal see section 13.

### SECTION 7  HANDLING AND STORAGE

#### 7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see section 2.2.

#### 7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature 2 - 8 °C

#### 7.3 Specific end use(s)
See Section 1.2., no other uses are identified.

### SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 Control parameters

- **Components with workplace control parameters**

#### 8.2 Exposure controls

- **Appropriate engineering controls**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

- **Personal protective equipment**

- **Eye/face protection**
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

- **Skin protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**
Impervious clothing, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>9.1 Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance Form:</td>
</tr>
<tr>
<td>Odour:</td>
</tr>
<tr>
<td>Odour threshold:</td>
</tr>
<tr>
<td>pH:</td>
</tr>
<tr>
<td>Melting point/freezing point:</td>
</tr>
<tr>
<td>Initial boiling point and boiling range:</td>
</tr>
<tr>
<td>Flash point:</td>
</tr>
<tr>
<td>Evaporation rate:</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits:</td>
</tr>
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<td>Vapour pressure:</td>
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<tr>
<td>Vapour density:</td>
</tr>
<tr>
<td>Relative density:</td>
</tr>
<tr>
<td>Water solubility:</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water:</td>
</tr>
<tr>
<td>Auto-ignition temperature:</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
</tr>
<tr>
<td>Viscosity:</td>
</tr>
<tr>
<td>Explosive properties:</td>
</tr>
<tr>
<td>Oxidizing properties:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9.2 Other safety information</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
</tr>
</tbody>
</table>

### SECTION 10  STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>10.1 Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
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</table>

<table>
<thead>
<tr>
<th>10.2 Chemical stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable under recommended storage conditions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10.3 Possibility of hazardous reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
</tr>
</tbody>
</table>
10.4 **Conditions to avoid**
Heat, flames and sparks.

10.5 **Incompatible materials**
No data available

10.6 **Hazardous decomposition products**
In the event of fire: see section 5

### SECTION 11  **TOXICOLOGICAL INFORMATION**

#### 11.1 Information on toxicological effects

- **Acute toxicity:** No data available
- **Skin corrosion/irritation:** No data available
- **Serious eye damage/eye irritation:** No data available
- **Respiratory or skin sensitisation:** No data available
- **Germ cell mutagenicity:** No data available
- **Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- **Reproductive toxicity:** No data available
- **Specific target organ toxicity**
  - **- single exposure:** No data available
  - **- repeated exposure:** No data available
- **Aspiration hazard:** No data available
- **Additional Information:** RTECS: Not available

### SECTION 12  **ECOLOGICAL INFORMATION**

12.1 **Toxicity**
No data available

12.2 **Persistence and degradability**
No data available

12.3 **Bioaccumulative potential**
No data available

12.4 **Mobility in soil**
No data available

12.5 **Results of PBT and vPvB assessment**
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 **Other adverse effects**
No data available
SECTION 13  DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14  TRANSPORT INFORMATION

14.1 UN number

14.2 UN proper shipping name
ADR/RID: FLAMMABLE LIQUID, N.O.S. (Ethanol)
IMDG: FLAMMABLE LIQUID, N.O.S. (Ethanol)
IATA: Flammable liquid, n.o.s. (Ethanol)

14.3 Transport hazard class(es)
ADR/RID: 3  IMDG: 3  IATA: 3

14.4 Packaging group
ADR/RID: III  IMDG: III  IATA: III

14.5 Environmental hazards
ADR/RID: no  IMDG Marine pollutant: no  IATA: no

14.6 Special precautions for user
No data available

SECTION 15  REGULATORY INFORMATION

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

15.2 Chemical safety assessment
Chemical safety assessment has not been carried out.

SECTION 16  OTHER INFORMATION

Date of issue: 19.9.2017
Revision notes: no

Full text of H-Statements
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Advice on training
Workers shall receive appropriate training to acquaint them with the recommended use, mandatory protective equipment, first aid measures and banned manners of handling the mixture.

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.
Dilution Buffer (K04)

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name: Dilution Buffer (K04)
Catalogue number: K04
Additional identification: Dilution Buffer with ProClin 300 (contains mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1), with C = 0.005%)

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

miREIA kit dilution buffer with ProClin 300 used as the preservative.

1.3 Details of the supplier of the safety data sheet

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 Bojišťi 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 of the substance or mixture

Classification according to Regulation 1272/2008/EC:
Solution containing 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1) 0.0015 ≤ C < 0.06% is considered hazardous according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008
Hazard pictogram:

Signal word:
Warning
Hazard statement:
H317 May cause an allergic skin reaction.
Precautionary statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray,
P264 Wash hands thoroughly after handling,
P272 Contaminated work clothing should not be allowed out of the workplace,
Dilution Buffer (K04)

Date of issue: 21.9.2017
Supersedes date:

P280 Wear protective gloves/protective clothing/eye protection/face protection,
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 Supplemental hazards statements
None

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures
Description: Dilution Buffer contains 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1), C = 0,005%

Ingredient
5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)
Conc. %   CAS-Nr.  Index-Nr.
< 0.06  55965-84-9            613-167-00-5

Classification according to regulation 1272/2008/EC:
Skin Sens. 1, H317

Specific concentration limits: Skin Corr. 1B, H314: C≥0,6 %; Skin Irrit. 2, H315: 0,06 %≤C<0,6 %; Eye Irrit. 2, H319: 0,06 %≤C<0,6 %; Skin Sens. 1, H317: C≥0,0015 %., EUH208: C≥0,00015 %

For full text of H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures
If in eyes: Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.
If on skin (or hair): Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician.

SECTION 5 FIREFIGHTING MEASURES

5.1 Suitable extinguishing agents
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special precautions for fire-fighters
Self contained breathing apparatus and full protective clothing must be worn in case of fire.
SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Person-related safety precautions
Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Measures for environmental protection
Keep away from drains.

6.3 Measures for containment and cleaning
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling:
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use normal measures for preventive fire protection.

7.2 Conditions for safe storage:
Store in a cool and dry place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Contains no substances with occupational exposure limit values.

8.2 Individual protection measures
Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

a) Eye/face protection: Wear approved safety goggles.

b) Skin/hand protection: Handle with protective gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

c) Body protection: Wear suitable protective clothing as protection against splashing or contamination.

d) Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

e) Respiratory protection: In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Clear Liquid
Odour: Not available
Odour threshold: Not available
pH: Neutral
Melting point/freezing point: Not available
Boiling point/Boiling range: Not available
Flash point: Not available
Evaporation rate: Not available
Flammability (solid, gas): Not available
Upper/lower flammability or explosive limits: Not available
Vapor density: Not available
Vapor pressure: Not available
Relative density: Not available
Solubility in/Miscibility with Water: Soluble
Partition coefficient: n-octanol/water: Not available
Auto igniting: Not available
Decomposition temperature: Not available
Viscosity: Not available

SECTION 10 STABILITY AND REACTIVITY

10.1 Chemical Stability
Stable under recommended storage conditions.

10.2 Conditions to avoid
Strong oxidizing agents, reducing agents, Amines, Mercaptans

10.3 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions – Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:
LD50 Oral – rat – 862 mg/kg
LD50 Dermal – rabbit- 2800 mg/kg
Skin corrosion/irritation: Can cause severe burns. Skin – rabbit – Corrosive
Serious eye damage/irritation: Rabbit – Corrosive to eyes
Respiratory or skin sensitization: May cause allergic skin reaction.
Germ cell mutagenicity: No data available
Carcinogenicity: No data available
Reproductive toxicity: No data available
Specific target organ toxicity (STOT) - single exposure: No data available
Specific target organ toxicity (STOT) - repeated exposure: No data available

Aspiration hazard: Can cause severe burns.

Information on likely routes of exposure: Routes of entry anticipated; oral, dermal, inhalation.

Symptoms related to the physical, chemical and toxicological characteristics:
Inhalation: Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: Harmful if swallowed. Causes burns.

Skin contact: Harmful if absorbed through skin. Causes burns.

Eye contact: Causes eye burns.

Delayed and immediate effects and also chronic effects from short and long term exposure:

Short term exposure: Potential immediate effects: Not available. Potential delayed effects: Not available.


Effects of chronic exposure:
ProClin 300 at levels greater than or equal to 0.1% is not identified as probable, possible or a confirmed human carcinogen by IARC.

Numerical measures of toxicity:
Not available.

Other Information:
Not available.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No data available.

12.2 Biodegradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Other adverse effects
Toxic to aquatic organisms.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Disposal methods
Dispose of waste in accordance to applicable national, regional, or local regulations.

13.2 Contaminated packaging
Dispose in the same manner as unused product.
13.3 Special precautions
Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilled material to soil, waterways, drains and sewers.

SECTION 14 TRANSPORT INFORMATION

14.1 UN Number: None
14.2 DOT regulations, Hazard class: None
14.4 Maritime transport IMDG: Not regulated.
14.5 Marine pollutant: No
14.6 Air transport ICAO-TI and IATA-DGR: Not regulated.
14.7 Transport/Additional information: Not dangerous according to the above specifications.

SECTION 15 REGULATORY INFORMATION

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

SECTION 16 OTHER INFORMATION

Date of issue: 21.9.2017
Supersedes date:

Full text of H-Statements
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.

Advice on training
Workers shall receive appropriate training to acquaint them with the recommended use, mandatory protective equipment, first aid measures and banned manners of handling the mixture.

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.

Date of issue: 21.9.2017
Supersedes date:
SECTION 1  IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier
Trade name: Stop Solution (C008111)
Catalogue number: C008111

1.2 Relevant identified uses of the substance or mixture and uses advised against
Stop solution for the ELISA kit.

1.3 Details of the supplier of the safety data sheet
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 of the substance or mixture
Classification according to Regulation 1272/2008/EC:
Not classified as dangerous.
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). (USA)

2.2 Label elements
Not applicable.

2.3 Other hazards
Concentration limits for classification as dangerous are not met.

SECTION 3  COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Conc. in w/w%</th>
<th>EINECS</th>
<th>CAS-Nr.</th>
<th>Index-Nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric acid, 98%</td>
<td>1-3</td>
<td>231-639-5</td>
<td>7664-93-9</td>
<td>016-020-00-8</td>
</tr>
</tbody>
</table>

Classification according to regulation 1272/2008/EC:
Skin Corr. 1A, H314
Specific concentration limits: Skin Corr. 1A, H314: C≥15 %; Skin Irrit. 2, H315: 5 %≤C<15 %; Eye Irrit. 2, H319: 5 %≤C<15 %.

For full text of and H-phrases see section 16.

SECTION 4  FIRST AID MEASURES

4.1 Description of first aid measures
General information: If feeling unwell or unsure, inform a doctor and show information from this Safety Data Sheet. If unconscious, place the affected person in the recovery position on their side with their head slightly backwards and take care there is no obstruction in their
respiratory tract, NEVER induce vomiting. If the affected person is vomiting, ensure that they do not choke on their own vomit.

If inhaled: Immediately stop the exposure, take the affected person to fresh air. Keep the affected person warm. Get medical attention if irritation, shortness of breath or other symptoms persists.

In case of skin contact: Take off contaminated clothing. Wash the affected area with plenty of lukewarm water, if possible. If skin is not irritated, soap, soap solution or shampoo can be used. Get medical attention if irritation persists.

In case of contact with eyes: Rinse the eyes immediately with plenty of running water keeping eyelids open; if the affected person wears contact lenses, remove them immediately. Continue rinsing for minimum 10 minutes. Get medical attention.

If ingested: DO NOT INDUCE VOMITING – even the act of inducing vomiting may cause complications. Rinse mouth, if possible, administer a small dose of activated carbon (1-2 crushed tablets); do not attempt neutralization. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: Possible respiratory tract irritation, cough, headache.
Skin contact: Painful reddening, irritation.
Eye contact: May cause irritation.
Ingestion: May cause irritation, sickness.

4.3 Indication of any immediate medical attention and special treatment needed

Immediate medical attention is not necessary.

SECTION 5  FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Alcohol resistant foam, carbon dioxide, powder, dispersed water, water spray.
Unsuitable extinguishing media: none known.

5.2 Special hazards arising from the substance or mixture

In case of fire sodium oxides can be released.

5.3 Advice for firefighters

Keep the contaminated fire-extinguishing media away from drains, surface and ground water. If necessary, wear a suitable self-contained breathing apparatus and full protective clothing.

SECTION 6  ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient ventilation. Wear proper protective equipment, refer to Section 8.

6.2 Environmental precautions

Avoid soil contamination and keep away from surface and ground water. Avoid spills and keep away from drains.

6.3 Methods and material for containment and cleaning up

Cover spills with suitable (non-flammable) absorbent (sand, diatomaceous earth, soil, and other suitable absorbent material); collect in a tightly closed container and dispose of in compliance with Section 13. Dispose of the contained material in accordance with local regulations. After containment, wash the affected area with plenty of water or other suitable detergent.

6.4 Reference to other sections

See section 7 for handling, section 8 for personal protective equipment, section 13 for disposal.
SECTION 7  HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not inhale gases and vapours. Avoid contact with the skin and the eyes. Wear suitable personal protective equipment according to Section 8. Comply with local and national regulations on occupational health and safety. Avoid long-term and repeated exposure.

7.2 Conditions for safe storage, including any incompatibilities
Keep in tightly closed containers and in cool, dry and well ventilated designated places. Open packaging must be carefully closed and kept in a vertical position to avoid release or spill. Keep away from alkaline materials.

7.3 Specific end use(s)
See Section 1.2., no other uses are identified.

SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Czech Republic (Government Decree no. 361/2007 Sb. as amended): Sulphuric acid, SO\(_3\): long term 1 mg/m\(^3\), short term 2 mg/m\(^3\), note I (causes irritation of mucous membranes (eyes, respiratory tract) and skin irritation).

8.2 Exposure controls

8.2.1 Appropriate engineering controls
Use in a well ventilated area.

8.2.2 Individual protection measures, such as personal protective equipment
Take usual occupational health and safety measures. If it is impossible to meet exposition limits, suitable respiratory protective equipment must be used. When using, do not eat, drink and smoke. Wash hands carefully with water and soap after work and before breaks.

a) Eye/face protection: Use protective glasses (according to EN 166).

b) Skin protection:
   i) Hand protection: Use suitable protective gloves resistant to the product. Follow the recommendations of the gloves manufacturer when selecting the appropriate thickness, material and permeability. In the event of long-term or repeated dermal exposure, apply suitable hand cream to the parts of the skin in direct contact with the mixture. Follow other recommendations of the manufacturer.
   ii) Other: Protective cotton clothing. Carefully wash the skin exposed to the product.

c) Respiratory protection: If necessary, wear a face respirator (according to EN 14387).

d) Thermal hazards: No information available.

8.2.3 Environmental exposure controls
Refer to Sections 6 and 12.

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Appearance (at 20°C): Colourless liquid
Odour: Odourless
Odour threshold: Not determined
Stop Solution (C008111)  
Date of issue: 18.3.2016  
Supersedes date: 4.6.2015

pH: 0.8  
Melting point/freezing point (°C): No data available  
Initial boiling point and boiling range (°C): No data available  
Flash point (°C): No data available  
Evaporation rate: No data available  
Flammability: No data available  
Upper/lower flammability or explosive limits: No data available  
Vapour pressure: No data available  
Vapour density: No data available  
Relative density: No data available  
Solubility: Soluble in water  
Partition coefficient n-octanol/water:  
Auto-ignition temperature (°C):  
Decomposition temperature:  
Viscosity: No data available  
Explosive properties: No data available  
Oxidising properties: No data available

9.2 Other information
None known.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity
No hazardous reactions occur under common conditions of use.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Reacts with strong bases.

10.4 Conditions to avoid
No data available.

10.5 Incompatible materials
Not known under recommended conditions of use.

10.6 Hazardous decomposition products
They are not produced under normal use. In the event of fire: sulphur oxides.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:
No data available on the product itself.

Sulphuric acid:
LD50, oral, rat: 3140 mg/kg  
LD50, inhalation, rat: 510 mg/m³/2 h  
Corrosion/irritation: May cause mild irritation. Product is not classified as irritant.

Chronic toxicity
Sensitisation: No data available.
Narcotic effects: No data available.
Carcinogenicity: No data available.
Mutagenicity: No data available.
Reproduction toxicity: No data available.

SECTION 12  ECOLOGICAL INFORMATION

12.1 Toxicity
No data available on the product itself.

Sulphuric acid:
LC50, fish, Gambusia affinis, 96 h: 42 mg/l
LC50, crustaceans, Pandalus montagui, 48 h: 42,5 mg/l

12.2 Persistence and biodegradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
Does not meet the criteria for PBT and vPvB.

12.6 Other adverse effects
No data available.

SECTION 13  DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Proceed in accordance with Act No. 185/2001 Coll., the Waste Act, as amended, Act No. 188/2004 Coll., to amend Act No. 185/2001 Coll.; Act No. 477/2001 Coll., to regulate packaging and to amend some statutes (the Packaging Act), as amended and in accordance with implemented regulations on waste disposal.

Appropriate methods of waste treatment of both the substance or the mixture and any contaminated packaging:
The indicated waste, including the waste identification sheet, shall be handed over to a company authorized to treat and dispose of wastes according to the Waste Act and that the company producing waste has entered into a contract with.

Both completely empty and not completely empty packaging shall be placed in designated containers for waste collection and the indicated waste shall be handed over for disposal to a person authorized to dispose of the waste.

Waste type code: 060101
Waste type: sulphuric acid and sulphurous acid *
Waste subgroup: waste from production, processing, distribution and use (VZDP) of acids
Waste group: WASTE CREATED BY ANORGANIC CHEMICAL PROCESSES

Waste type code for packaging: 150110
Waste type: packaging containing residues of dangerous substances or packaging contaminated with these substances *
Waste subgroup: Packaging (including separately collected household packaging material)
SECTION 14 TRANSPORT INFORMATION

14.1 UN number
Not regulated.

14.2 UN proper shipping name
Not regulated.

14.3 Transport hazard class
Not regulated.

14.4 Packing group
Not regulated.

14.5 Environmental hazards
No data available.

14.6 Special precautions for user
No data available.

14.7 Transport in bulk according to Annex II of Marpol73/78 and the IBC Code
No data 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

U.S. Federal regulations:
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (GWA) 311: sulphuric acid.

15.2 Chemical safety assessment
Chemical safety assessment has not been carried out.

SECTION 16 OTHER INFORMATION

Date of issue: 18.3.2016
Full text of H-phrases:
H314 Causes severe skin burns and eye damage.

Hazardous Material Information System (U.S.A.)
Health 1
Chronic Health Hazard
Flammability 0
Physical Hazards 0

National Fire Protection Association (U.S.A.)
Health 1
Flammability 0
Instability/Reactivity 0
Special

Advice on training
Workers shall receive appropriate training to acquaint them with the recommended use, mandatory protective equipment, first aid measures and banned manners of handling the mixture.

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.