Safety Information

Mouse/Rat Obestatin ELISA

Revision Date: 18.1.2018

The RA19014R Mouse/Rat Obestatin ELISA kit is based on a sandwich technique that has been validated to measure obestatin in plasma (K3-EDTA) or in Obestatin Dilution buffer. 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) Antibody Coated Microtiter Strips
B) Streptavidin AChE tracer
C) Mouse/Rat Obestatin Biotin-Labelled Antibody
D) Mouse/Rat Obestatin Standard
E) Mouse/Rat Obestin Quality Control
F) Dilution Buffer (EIA buffer)
G) Wash Solution Concentrate
H) Substrate Solution (Ellman’s reagent)
I) Tween 20

Components B) – F) and H) are hazardous mixtures according to CLP Regulation (EC) as amended. Safety Data Sheets according to actual Regulations (EC/EU) are attached.
MATERIAL SAFETY DATA SHEET


Streptavidin AChE tracer (RA19014R Kit)

Date of issue: 18.1.2018

Supersedes date:

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

1.1 Product identifier

Trade name: Streptavidin AChE tracer (RA19014R Kit)

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

Assay component.

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:

Eye Irrit. 2, H319

2.2 Label elements

Hazard pictogram:

! [Exclamation icon]

Signal word:
Warning

Hazard statements:

H319 Causes serious eye irritation.

Precautionary statements:

P280 Wear eye protection / face protection.
P264 Wash thoroughly after handling.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

Results of PBT and vPvB assessment:

PBT: Not applicable.
vPvB: Not applicable.
SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Conc. in w/w%</th>
<th>EINECS</th>
<th>CAS-Nr.</th>
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</thead>
<tbody>
<tr>
<td>Polyethylene glycol octylphenol ether</td>
<td>0.25 – &lt;2.5</td>
<td>—</td>
<td>9002-93-1</td>
</tr>
</tbody>
</table>

Classification according to regulation 1272/2008/EC:
Eye Dam. 1, H318; Aquatic Chronic 2, H411; Acute Tox. 4, H302

For full text of H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally, the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist consult doctor.
After swallowing: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Not required.

6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Pick up mechanically.

6.4 Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
SECTION 7  HANDLING AND STORAGE

7.1 Precautions for safe handling
No special precautions are necessary if used correctly.

Information about fire and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities
Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed.

Recommended storage temperature: -20°C

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

SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

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

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

Respiratory protection: Not required.

Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form: Solid
Colour: Whitish
Odour: Uncharacteristic.
Odour threshold: Not determined.
PH-value: Not applicable.
Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: 100°C
Flash point: Not applicable.
Flammability (solid, gas): Not determined.
Decomposition temperature: Not determined.
Auto-ignition temperature: Product is not self-igniting.
Explosive properties: Product does not present an explosion hazard.
Explosion limits:
Lower: Not determined.
Upper: Not determined.
Vapour pressure: Not applicable.
Density: Not determined.
Relative density: Not determined.
Vapour density: Not applicable.
Evaporation rate: Not applicable.
Solubility in / Miscibility with water: Soluble.
Partition coefficient: n-octanol/water: Not determined.
Viscosity:
Dynamic: Not applicable.
Kinematic: Not applicable.
Solvent content:
Organic solvents: 0.0%
Solids content: 97.5%

9.2 Other information
No further relevant information available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity
No further relevant information available.

10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions
No dangerous reactions known.

10.4 Conditions to avoid
No further relevant information available.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
No dangerous decomposition products known.
SECTION 11  TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:
CAS: 9002-93-1, Polyethylene glycol octylphenol ether
Oral LD50 1900 – 5000 mg/kg (rat)
Dermal LD50 >3000 mg/kg (rabbit)

Primary irritant effect:
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/irritation: Causes serious eye damage.
Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12  ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: Based on available data, the classification criteria are not met.

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
No further relevant information available.

12.4 Mobility in soil
No further relevant information available.

Additional ecological information: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available.
SECTION 13  DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14  TRANSPORT INFORMATION

14.1 UN-Number
ADR, ADN, IMDG, IATA  not regulated

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA  not regulated

14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA  Class not regulated

14.4 Packing group
ADR, IMDG, IATA  not regulated

14.5 Environmental hazards:
Not applicable.

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable.

Transport/Additional information:
IATA Remarks: When sold in quantities of less than or equal to 1mL or 1g with an Excepted Quantity Code of E1, E2, E3, E4 or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore, packaging does not have to be labeled as Dangerous Goods/Excepted Quantity

SECTION 15  REGULATORY INFORMATION

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

The product contains CAS: 9002-93-1 Polyethylene glycol octylphenol ether - substance of very high concern (SVHC) according to REACH, Article 57.

15.2 Chemical safety assessment
Chemical safety assessment has not been carried out.
**SECTION 16  OTHER INFORMATION**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Revision notes:</td>
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</table>

**Full text of H-phrases:**
- H302 Harmful if swallowed.
- H318 Causes serious eye damage.
- H411 Toxic to aquatic life with long lasting effects.

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

1.1 Product identifier
Trade name: Mouse/Rat Obestatin Biotin-Labelled Antibody

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

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:
Eye Irrit. 2, H319

2.2 Label elements
Hazard pictogram:

Signal word:
Warning
Hazard statements:
H319 Causes serious eye irritation.
Precautionary statements:
P280 Wear eye protection / face protection.
P264 Wash thoroughly after handling.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards
Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.
SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

<table>
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Classification according to regulation 1272/2008/EC:
Eye Dam. 1, H318; Aquatic Chronic 2, H411; Acute Tox. 4, H302

For full text of H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally, the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist consult doctor.
After swallowing: If symptoms persist consult doctor.

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

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture
No further relevant information available.

5.3 Advice for firefighters
Protective equipment: No special measures required.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Not required.

6.2 Environmental precautions:
Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up:
Pick up mechanically.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
**SECTION 7  Handling and Storage**

7.1 Precautions for safe handling
No special precautions are necessary if used correctly.

**Information about fire and explosion protection:** No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep container tightly sealed.

**Recommended storage temperature:** -20°C

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

**SECTION 8  Exposure Controls / Personal Protection**

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

**Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

8.2 Exposure controls

**Personal protective equipment:**

**General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

**Respiratory protection:** Not required.

**Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Tightly sealed goggles

**SECTION 9  Physical and Chemical Properties**

9.1 Information on basic physical and chemical properties

**Form:** Solid

**Colour:** White
Odour: Uncharacteristic.
Odour threshold: Not determined.
pH-value: Not applicable.
Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: 100°C
Flash point: Not applicable.
Flammability (solid, gas): Not determined.
Decomposition temperature: Not determined.
Auto-ignition temperature: Product is not self-igniting.
Explosive properties: Product does not present an explosion hazard.
Explosion limits:
  Lower: Not determined.
  Upper: Not determined.
Vapour pressure: Not applicable.
Density: Not determined.
Relative density: Not determined.
Vapour density: Not applicable.
Evaporation rate: Not applicable.
Solubility in / Miscibility with water: Soluble.
Partition coefficient: n-octanol/water: Not determined.
Viscosity: Dynamic: Not applicable.
  Kinematic: Not applicable.
Solvent content: Organic solvents: 0.0%
  Solids content: 100.0%

9.2 Other information
No further relevant information available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity
No further relevant information available.

10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions
No dangerous reactions known.

10.4 Conditions to avoid
No further relevant information available.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
No dangerous decomposition products known.
SECTION 11  TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:
- CAS: 9002-93-1, Polyethylene glycol octylphenol ether
- Oral LD50: 1900 – 5000 mg/kg (rat)
- Dermal LD50: >3000 mg/kg (rabbit)

Primary irritant effect:
- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- Serious eye damage/irritation: Causes serious eye damage.
- Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12  ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

Additional ecological information: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects

No further relevant information available.
SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Recommendation:
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14 TRANSPORT INFORMATION

14.1 UN-Number
ADR, ADN, IMDG, IATA not regulated

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA not regulated

14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA Class not regulated

14.4 Packing group
ADR, IMDG, IATA not regulated

14.5 Environmental hazards:
Not applicable.

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable.

Transport/Additional information:
IATA Remarks: When sold in quantities of less than or equal to 1mL or 1g with an Excepted Quantity Code of E1, E2, E3, E4 or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore, packaging does not have to be labeled as Dangerous Goods/Excepted Quantity

SECTION 15 REGULATORY INFORMATION

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

The product contains CAS: 9002-93-1 Polyethylene glycol octylphenol ether - substance of very high concern (SVHC) according to REACH, Article 57.

15.2 Chemical safety assessment
Chemical safety assessment has not been carried out.
Mouse/Rat Obestatin Biotin-Labelled Antibody

Date of issue: 18.1.2018
Supersedes date: 

SECTION 16 OTHER INFORMATION

Date of issue: 18.1.2018
Revision notes:

Full text of H-phrases:
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.

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

Standard (RA19014R Kit)

Date of issue: 18.1.2018
Supersedes date:

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

1.1 Product identifier

Trade name: Standard (RA19014R Kit)

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

Assay component - Mouse/Rat Obestatin Standard.

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:
Eye Irrit. 2, H319

2.2 Label elements

Hazard pictogram:

Signal word:
Warning

Hazard statements:
H319 Causes serious eye irritation.

Precautionary statements:
P280 Wear eye protection / face protection.
P264 Wash thoroughly after handling.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.
SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

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Classification according to regulation 1272/2008/EC:
Eye Dam. 1, H318; Aquatic Chronic 2, H411; Acute Tox. 4, H302

For full text of H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally, the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist consult doctor.
After swallowing: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Not required.

6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Pick up mechanically.

6.4 Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
SECTION 7  HANDLING AND STORAGE

7.1  Precautions for safe handling
No special precautions are necessary if used correctly.
Information about fire and explosion protection: No special measures required.

7.2  Conditions for safe storage, including any incompatibilities
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Keep container tightly sealed.
Recommended storage temperature: -20°C

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

SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

8.1  Control parameters
Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to
be monitored at the workplace.
Additional information: The lists valid during the making were used as basis.

8.2  Exposure controls
Personal protective equipment:
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
Respiratory protection: Not required.
Protection of hands: The glove material has to be impermeable and resistant to the
product/ the substance/ the preparation. Due to missing tests no
recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on
consideration of the penetration times, rates of diffusion and the
degradation. The selection of the suitable gloves does not only
depend on the material, but also on further marks of quality and
varies from manufacturer to manufacturer. As the product is a
preparation of several substances, the resistance of the glove
material can not be calculated in advance and has therefore to be
checked prior to the application. The exact break through time has to
be found out by the manufacturer of the protective gloves and has to
be observed.
Eye protection: Tightly sealed goggles

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

9.1  Information on basic physical and chemical properties
Form: Solid
Colour: White
Odour: Uncharacteristic.
Odour threshold: Not determined.

pH-value: Not applicable.
Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: 100°C
Flash point: Not applicable.
Flammability (solid, gas): Not determined.
Decomposition temperature: Not determined.
Auto-ignition temperature: Product is not self-igniting.
Explosive properties: Product does not present an explosion hazard.

Explosion limits:
Lower: Not determined.
Upper: Not determined.

Vapour pressure: Not applicable.
Density: Not determined.
Relative density: Not determined.
Vapour density: Not applicable.
Evaporation rate: Not applicable.

Solubility in / Miscibility with water: Soluble.
Partition coefficient:
n-octanol/water: Not determined.

Viscosity:
Dynamic: Not applicable.
Kinematic: Not applicable.

Solvent content:
Organic solvents: 0.0%
Solids content: 100.0%

9.2 Other information
No further relevant information available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity
No further relevant information available.

10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions
No dangerous reactions known.

10.4 Conditions to avoid
No further relevant information available.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
No dangerous decomposition products known.
# SECTION 11 TOXICOLOGICAL INFORMATION

## 11.1 Information on toxicological effects

**Acute toxicity:**
- Based on available data, the classification criteria are not met.

**LD/LC50 values relevant for classification:**

<table>
<thead>
<tr>
<th>CAS</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>9002-93-1, Polyethylene glycol octylphenol ether</td>
<td>1900 – 5000 mg/kg (rat)</td>
<td>&gt;3000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

**Primary irritant effect:**
- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- Serious eye damage/irritation: Causes serious eye damage.
- Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

**CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):**
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure:**
- Based on available data, the classification criteria are not met.

**STOT-repeated exposure:**
- Based on available data, the classification criteria are not met.

**Aspiration hazard:**
- Based on available data, the classification criteria are not met.

# SECTION 12 ECOLOGICAL INFORMATION

## 12.1 Toxicity

**Aquatic toxicity:**
- Based on available data, the classification criteria are not met.

## 12.2 Persistence and degradability

- No further relevant information available.

## 12.3 Bioaccumulative potential

- No further relevant information available.

## 12.4 Mobility in soil

- No further relevant information available.

**Additional ecological information:**
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

## 12.6 Other adverse effects

- No further relevant information available.
SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14 TRANSPORT INFORMATION

14.1 UN-Number
ADR, ADN, IMDG, IATA not regulated

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA not regulated

14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA Class not regulated

14.4 Packing group
ADR, IMDG, IATA not regulated

14.5 Environmental hazards:
Not applicable.

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable.

Transport/Additional information:
IATA Remarks: When sold in quantities of less than or equal to 1mL or 1g with an Excepted Quantity Code of E1, E2, E3, E4 or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore, packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.

SECTION 15 REGULATORY INFORMATION

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

The product contains CAS: 9002-93-1 Polyethylene glycol octylphenol ether - substance of very high concern (SVHC) according to REACH, Article 57.

15.2 Chemical safety assessment
Chemical safety assessment has not been carried out.
SECTION 16 OTHER INFORMATION

Date of issue: 18.1.2018
Revision notes:

Full text of H-phrases:
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.

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

Quality Control (RA19014R Kit)

Date of issue: 18.1.2018
Supersedes date:

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

1.1 Product identifier
Trade name: Quality Control (RA19014R Kit)

1.2 Relevant identified uses of the substance or mixture and uses advised against
Assay component – Mouse/Rat Obestin Quality Control.

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:
Eye Irrit. 2, H319

2.2 Label elements
Hazard pictogram:

Signal word: Warning
Hazard statements:
H319 Causes serious eye irritation.
Precautionary statements:
P280 Wear eye protection / face protection.
P264 Wash thoroughly after handling.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards
Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.
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>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene glycol octylphenol ether</td>
<td>0.25 – &lt;2.5</td>
<td>—</td>
<td>9002-93-1</td>
</tr>
</tbody>
</table>

Classification according to regulation 1272/2008/EC:
Eye Dam. 1, H318; Aquatic Chronic 2, H411; Acute Tox. 4, H302

For full text of H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally, the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist consult doctor.
After swallowing: If symptoms persist consult doctor.

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

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture
No further relevant information available.

5.3 Advice for firefighters
Protective equipment: No special measures required.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Not required.

6.2 Environmental precautions:
Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up:
Pick up mechanically.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
SECTION 7  HANDLING AND STORAGE

7.1 Precautions for safe handling
No special precautions are necessary if used correctly.

Information about fire and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities
Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed.

Recommended storage temperature: -20°C

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

SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls
Personal protective equipment:

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

Respiratory protection: Not required.

Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

SECTION 9  PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Form: Solid
Colour: White
Quality Control (RA19014R Kit)  

Date of issue: 18.1.2018  
Supersedes date:

Odour: Uncharacteristic.  
Odour threshold: Not determined.  
PH-value: Not applicable.  
Melting point/freezing point: Undetermined.  
Initial boiling point and boiling range: 100°C  
Flash point: Not applicable.  
Flammability (solid, gas): Not determined.  
Decomposition temperature: Not determined.  
Auto-ignition temperature: Product is not self-igniting.  
Explosive properties: Product does not present an explosion hazard.  
Explosion limits: 
Lower: Not determined.  
Upper: Not determined.  
Vapour pressure: Not applicable.  
Density: Not determined.  
Relative density: Not determined.  
Vapour density: Not applicable.  
Evaporation rate: Not applicable.  
Solubility in / Miscibility with water: Soluble.  
Partition coefficient: n-octanol/water: Not determined.  
Viscosity: Dynamic: Not applicable.  
Kinematic: Not applicable.  
Solvent content: Organic solvents: 0.0%  
Solids content: 100.0%

9.2 Other information  
No further relevant information available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity  
No further relevant information available.

10.2 Chemical stability  
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions  
No dangerous reactions known.

10.4 Conditions to avoid  
No further relevant information available.

10.5 Incompatible materials  
No further relevant information available.

10.6 Hazardous decomposition products  
No dangerous decomposition products known.
SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:
CAS: 9002-93-1, Polyethylene glycol octylphenol ether
Oral LD50 1900 – 5000 mg/kg (rat)
Dermal LD50 >3000 mg/kg (rabbit)

Primary irritant effect:
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/irritation: Causes serious eye damage.
Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: Based on available data, the classification criteria are not met.

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
No further relevant information available.

12.4 Mobility in soil
No further relevant information available.

Additional ecological information:
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available.
SECTION 13  DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations. Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14  TRANSPORT INFORMATION

14.1 UN-Number
ADR, ADN, IMDG, IATA not regulated

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA not regulated

14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA Class not regulated

14.4 Packing group
ADR, IMDG, IATA not regulated

14.5 Environmental hazards:
Not applicable.

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable.

Transport/Additional information:
IATA Remarks: When sold in quantities of less than or equal to 1mL or 1g with an Excepted Quantity Code of E1, E2, E3, E4 or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore, packaging does not have to be labeled as Dangerous Goods/Excepted Quantity

SECTION 15  REGULATORY INFORMATION

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

The product contains CAS: 9002-93-1 Polyethylene glycol octylphenol ether - substance of very high concern (SVHC) according to REACH, Article 57.

15.2 Chemical safety assessment
Chemical safety assessment has not been carried out.
SECTION 16 OTHER INFORMATION

Date of issue: 18.1.2018
Revision notes:

Full text of H-phrases:
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.

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

1.1 Product identifier

Trade name: Dilution Buffer (RA19014R Kit)

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

Assay component – EIA buffer.

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:

Eye Dam. 1, H318

Aquatic Chronic 3, H412

2.2 Label elements

Hazard pictogram:

Signal word:

Danger

Hazard-determining components of labelling:

Polyethylene glycol octylphenol ether

Hazard statements:

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P280 Wear eye protection / face protection.

P273 Avoid release to the environment.

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

P310 Immediately call a POISON CENTER/doctor.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
2.3 Other hazards

Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.

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>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene glycol octylphenol ether</td>
<td>2.5 – &lt;10</td>
<td>—</td>
<td>9002-93-1</td>
</tr>
</tbody>
</table>

Classification according to regulation 1272/2008/EC:
Eye Dam. 1, H318; Aquatic Chronic 2, H411; Acute Tox. 4, H302

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Conc. in w/w%</th>
<th>EINECS</th>
<th>CAS-Nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium azide</td>
<td>0.25– &lt;2.5</td>
<td>247-852-1</td>
<td>26628-22-8</td>
</tr>
</tbody>
</table>

Classification according to regulation 1272/2008/EC:
Acute Tox. 2, H300; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410

For full text of H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally, the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.
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

Dilution Buffer (RA19014R Kit)

Date of issue: 18.1.2018
Supersedes date:

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:
Use neutralising agent.
Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling
Thorough dedusting.
Information about fire and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Keep container tightly sealed.
Recommended storage temperature: -20°C

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

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:
CAS: 26628-22-8, sodium azide
WEL Short-term value: 0.3 mg/m³
Long-term value: 0.1 mg/m³
(as NaN₃), Sk
Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls
Personal protective equipment:
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
Respiratory protection: Not required.
Protection of hands: Protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the
product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**
Tightly sealed goggles

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Solid</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
</tr>
<tr>
<td>Odour</td>
<td>Uncharacteristic.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>100°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>251°C</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Product is not self-igniting.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>Soluble.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not determined.</td>
</tr>
<tr>
<td>n-octanol/water</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solvent content</td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>0.0%</td>
</tr>
<tr>
<td>Solids content</td>
<td>92.5%</td>
</tr>
</tbody>
</table>

#### 9.2 Other information

No further relevant information available.

### SECTION 10 STABILITY AND REACTIVITY

#### 10.1 Reactivity

No further relevant information available.

#### 10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions
No dangerous reactions known.

10.4 Conditions to avoid
No further relevant information available.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
No dangerous decomposition products known.

SECTION 11  TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:
- CAS: 9002-93-1, Polyethylene glycol octylphenol ether
  - Oral LD50: 1900 – 5000 mg/kg (rat)
  - Dermal LD50: >3000 mg/kg (rabbit)
- CAS: 26628-22-8, sodium azide
  - Oral LD50: 27 mg/kg (rat)
  - Dermal LD50: 20 mg/kg (rabbit)

Primary irritant effect:
- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- Serious eye damage/irritation: Causes serious eye damage.
- Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity: Based on available data, the classification criteria are not met.
- Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12  ECOLOGICAL INFORMATION

12.1 Toxicity
Aquatic toxicity:
- CAS: 26628-22-8 sodium azide
  - EC50 96h (static): 0.35 mg/l (Pseudokirchneriella subcapitata)
  - LC50 96h: 5.46 mg/l (Pimephales promelas)

12.2 Persistence and degradability
No further relevant information available.
12.3 Bioaccumulative potential
   No further relevant information available.

12.4 Mobility in soil
   No further relevant information available.
   
   **Ecotoxic effects:**
   Remark: Harmful to fish
   **Additional ecological information:**
   Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralised. Harmful to aquatic organisms.

12.5 Results of PBT and vPvB assessment
   PBT: Not applicable.
   vPvB: Not applicable.

12.6 Other adverse effects
   No further relevant information available.

**SECTION 13 DISPOSAL CONSIDERATIONS**

13.1 Waste treatment methods
   **Recommendation:**
   Must not be disposed together with household garbage. Do not allow product to reach sewage system.
   **European waste catalogue**
   HP 6  Acute Toxicity
   HP 14  Ecotoxic
   **Uncleaned packaging:**
   Recommendation: Disposal must be made according to official regulations.
   Recommended cleansing agents: Water, if necessary together with cleansing agents.

**SECTION 14 TRANSPORT INFORMATION**

14.1 UN-Number
   ADR, ADN, IMDG, IATA  not regulated

14.2 UN proper shipping name
   ADR, ADN, IMDG, IATA  not regulated

14.3 Transport hazard class(es)
   ADR, ADN, IMDG, IATA  Class not regulated

14.4 Packing group
   ADR, IMDG, IATA  not regulated

14.5 Environmental hazards:
   Not applicable.

14.6 Special precautions for user
   Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
   Not applicable.
Transport/Additional information:
IATA Remarks: When sold in quantities of less than or equal to 1mL or 1g with an Excepted Quantity Code of E1, E2, E3, E4 or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore, packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.

SECTION 15 REGULATORY INFORMATION

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

The product contains CAS: 9002-93-1 Polyethylene glycol octylphenol ether - substance of very high concern (SVHC) according to REACH, Article 57.

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

SECTION 16 OTHER INFORMATION

Date of issue: 18.1.2018
Revision notes:

Full text of H-phrases:
H300 Fatal if swallowed.
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

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

1.1 Product identifier

Trade name: Substrate Solution (RA19014R Kit)

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

Assay component – Ellman’s reagent.

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:
Acute Tox. 4, H302
Skin Irrit. 2, H315
Eye Irrit. 2, H319

2.2 Label elements

Hazard pictogram:

![Hazard Pictogram]

Signal word:
Warning

Hazard-determining components of labelling:
2-acetylthioethyltrimethylammonium iodide

Hazard statements:
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements:
P280 Wear protective gloves / 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.
P321 Specific treatment (see on this label).
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.

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>
</tr>
</thead>
<tbody>
<tr>
<td>2-acetylthioethyltrimethylammonium iodide</td>
<td>2.5 – &lt;10</td>
<td>217-472-0</td>
<td>1866-15-5</td>
</tr>
<tr>
<td>Classification according to regulation 1272/2008/EC:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 3, H301; Acute Tox. 3, H311; Skin Irrit. 2, H315; Eye Irrit 2, H319; STOT SE 3, H335</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Conc. in w/w%</th>
<th>EINECS</th>
<th>CAS-Nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,3’-dithiobis[6-nitrobenzoic] acid</td>
<td>2.5 – &lt;10</td>
<td>200-714-4</td>
<td>69-78-3</td>
</tr>
<tr>
<td>Classification according to regulation 1272/2008/EC:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For full text of H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

General information:
Symptoms of poisoning may even occur after several hours, therefore medical observation for at least 48 hours after the accident.

After inhalation: In case of unconsciousness place patient stably in side position for transportation.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.
SECTION 6  ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Not required.

6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Pick up mechanically.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7  HANDLING AND STORAGE

7.1 Precautions for safe handling

No special precautions are necessary if used correctly.

Information about fire and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed.

Recommended storage temperature: -20°C

7.3 Specific end use(s)

No further relevant information available.

SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

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

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection: Not required.

Protection of hands: Protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The selection of the suitable gloves
Substrate Solution (RA19014R Kit)

Date of issue: 18.1.2018
Supersedes date:

does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

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**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Solid</td>
</tr>
<tr>
<td>Colour</td>
<td>Light yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Undetermined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>1461°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Product is not self-igniting.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not determined</td>
</tr>
<tr>
<td>n-octanol/water</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solvent content</td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>0.0%</td>
</tr>
<tr>
<td>Solids content</td>
<td>100%</td>
</tr>
</tbody>
</table>

**9.2 Other information**

No further relevant information available.

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**SECTION 10 STABILITY AND REACTIVITY**

**10.1 Reactivity**

No further relevant information available.

**10.2 Chemical stability**

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions
No dangerous reactions known.

10.4 Conditions to avoid
No further relevant information available.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
No dangerous decomposition products known.

SECTION 11  TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity: Harmful if swallowed
LD/LC50 values relevant for classification:
CAS: 1866-15-5, 2-acetylthioethyltrimethylammonium iodide
Oral LD50 100 mg/kg (rat)
Dermal LD50 500 mg/kg (guinea pig)
CAS: 69-78-3, 3,3'-dithiobis[6-nitrobenzoic] acid
LD50 Intraperitoneal 2080 mg/kg (mouse)

Primary irritant effect:
Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye damage.
Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12  ECOLOGICAL INFORMATION

12.1 Toxicity
Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability
No further relevant information available.

12.3 Bioaccumulative potential
No further relevant information available.
12.4 Mobility in soil
No further relevant information available.

Additional ecological information:
Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Recommendation:
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue
HP 6 Acute Toxicity

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14 TRANSPORT INFORMATION

14.1 UN-Number
ADR, ADN, IMDG, IATA not regulated

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA not regulated

14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA Class not regulated

14.4 Packing group
ADR, IMDG, IATA not regulated

14.5 Environmental hazards:
Not applicable.

14.6 Special precautions for user
Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable.

Transport/Additional information:
IATA Remarks: When sold in quantities of less than or equal to 1mL or 1g with an Excepted Quantity Code of E1, E2, E3, E4 or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore, packaging does not have to be labeled as Dangerous Goods/Excepted Quantity
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: 18.1.2018

Full text of H-phrases:
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory 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.