

Safety Information
Human VEGF-A ELISA

Revision Date: 8.3.2018

The RAF136R Human VEGF-A ELISA is an enzyme-linked immunosorbent assay for the quantitative detection of human VEGF-A.

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) Biotin-Conjugate
- C) Streptavidin-HRP
- D) Standard
- E) Sample Diluent
- F) Assay Buffer Concentrate
- G) Wash Buffer Concentrate
- H) Substrate Solution
- I) Stop Solution
- J) Adhesive Films

Components C), D) and I) contain hazardous mixture according to CLP Regulation (EC) as amended. Safety Data Sheets according to actual Regulations (EC/EU) are attached.

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

Straptavidin-HRP (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

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

1.1 Product identifier

Trade name: Straptavidin-HRP (RAF136R Kit)

Additional identification: contains 5-bromo-5-nitro-1,3-dioxane (Bronidox)

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

Assay component – HRP conjugate.

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:

Chronic aquatic toxicity (Category 3), H412

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Hazard pictogram:

None

Signal word:

None

Hazard statement:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P273 Avoid release to the environment

P501 Dispose of contents/ container to an approved waste disposal plant

Supplemental hazards statements

None

2.3 Other hazards

No information available.

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

Straptavidin-HRP (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

Ingredient	Conc. %	CAS-Nr.	EC-Nr.
5-bromo-5-nitro-1,3-dioxane	< 1.0	30007-47-7	250-001-72

Classification according to regulation 1272/2008/EC:

Aqua. Chron. 3; H412

For full text of H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled: Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

In case of skin contact: Rinse with plenty of water. Immediate medical attention is not required.

In case of eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

If swallowed: Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

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

Water spray, carbon dioxide (CO₂), foam, dry chemical.

5.2 Special hazards arising from the substance or mixture

Not known.

5.3 Advice for firefighters

Standard procedure for chemical fires.

5.4 Further information

No data available.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended personal protective equipment. Use personal protection equipment.

See Section 8 for more detail.

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

Straptavidin-HRP (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

6.2 Environmental precautions

Should not be released into the environment. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material.

6.4 Reference to other sections

See section 8 for more information.

For disposal see section 13.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

7.3 Specific end use(s)

For research use only.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

None.

Engineering measures: Ensure adequate ventilation, especially in confined areas.

8.2 Exposure controls

Personal protective equipment

a) Eye/face protection: Tightly fitting safety goggles.

b) Skin protection: Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

c) Body Protection: Wear suitable protective clothing.

d) Respiratory protection: In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

e) Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

f) Control of environmental exposure: Should not be released into the environment. Prevent product from entering drains.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Liquid
b) Odour	No data available
c) pH	No data available
d) Melting point / melting range	Mixture has not been tested
e) Boiling point / boiling range	Mixture has not been tested
f) Flash point	Mixture has not been tested
g) Autoignition temperature	Mixture has not been tested

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

Straptavidin-HRP (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

h) Decomposition temperature	Mixture has not been tested
i) Evaporation rate	No data available
j) Flammability (solid, gas)	No data available
k) Upper explosion limit	Mixture has not been tested
l) Lower explosion limit	Mixture has not been tested
m) Vapour Pressure	Mixture has not been tested
n) Relative density	Mixture has not been tested
o) Specific gravity	No data available
p) Solubility	No data available
q) Partition coefficient: n-octanol/water	No data available
r) Explosive properties	Mixture has not been tested

9.2 Other safety information

No data available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

None known.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reaction has not been reported.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No data available.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

CAS: 30007-47-7, 5-bromo-5-nitro-1,3-dioxane

LD50 (oral, rat/mouse) 455 mg/kg (rat)

Irritation:

Conclusive but not sufficient for classification.

Corrosivity:

Conclusive but not sufficient for classification.

Sensitisation:

Conclusive but not sufficient for classification.

Mutagenicity:

Conclusive but not sufficient for classification.

Carcinogenicity:

Conclusive but not sufficient for classification.

Reproductive toxicity:

Conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure:

Conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure:

Conclusive but not sufficient for classification.

Aspiration hazard:

Conclusive but not sufficient for classification.

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

Straptavidin-HRP (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

Hazardous to the aquatic environment.

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

No data available.

12.6 Other adverse effects

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

13.2 Contaminated packaging

Dispose of as unused product.

SECTION 14 TRANSPORT INFORMATION

14.1 UN number

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packaging group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Not applicable.

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

Straptavidin-HRP (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

SECTION 15 REGULATORY INFORMATION

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

Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended. Implemented regulations to Act No. 350/2011 Coll., as amended

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

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 OTHER INFORMATION

Date of issue: 8.3.2018

Supersedes date:

Full text of H-Statements

H412 Harmful 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 (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

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

1.1 Product identifier

Trade name: Standard (RAF136R Kit)

Additional identification: contains CMIT/MIT (mixture of 5-chloro-2-methyl-3(2H)-isothiazolone with 2-methyl-3(2H)-isothiazolone)

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

Assay component – IL-13 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:

Skin sensitization (Category 1), H317

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.

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

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

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P362 + P364 Take off all contaminated clothing and wash it before reuse.

P501 Dispose of contents/ container to an approved waste disposal plant.

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 (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

Supplemental hazards statements

None

2.3 Other hazards

No information available.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

Ingredient	Conc. %	CAS-Nr.	Index-Nr.
CMIT/MIT	0.0015-0.05	55965-84-9	613-167-00-5

Classification according to regulation 1272/2008/EC:

Skin. Sens. 1; H317

Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Skin Corr. 1B, H314; Skin Sens. 1, H317; 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

If inhaled: Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

In case of skin contact: Rinse with plenty of water. Immediate medical attention is not required.

In case of eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

If swallowed: Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

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

Get medical advice/attention if you feel unwell.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Water spray, carbon dioxide (CO₂), foam, dry chemical.

5.2 Special hazards arising from the substance or mixture

Not known.

5.3 Advice for firefighters

Standard procedure for chemical fires.

5.4 Further information

No data available.

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 (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Always wear recommended personal protective equipment. Use personal protection equipment.
See Section 8 for more detail.

6.2 Environmental precautions

Avoid discharge into drains and waterways whenever possible.

6.3 Methods and material for containment and cleaning up

Soak up with inert absorbent material.

6.4 Reference to other sections

See section 8 for more information.
For disposal see section 13.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

7.3 Specific end use(s)

For research use only.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

None.

Engineering measures: Ensure adequate ventilation, especially in confined areas.

8.2 Exposure controls

Personal protective equipment

a) Eye/face protection: Tightly fitting safety goggles.

b) Skin protection: Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

c) Body Protection: Wear suitable protective clothing.

d) Respiratory protection: In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

e) Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

f) Control of environmental exposure: Avoid discharge into drains and waterways whenever possible.

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 (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Liquid
b) Odour	No data available
c) pH	No data available
d) Melting point / melting range	Mixture has not been tested
e) Boiling point / boiling range	Mixture has not been tested
f) Flash point	Mixture has not been tested
g) Autoignition temperature	Mixture has not been tested
h) Decomposition temperature	Mixture has not been tested
i) Evaporation rate	No data available
j) Flammability (solid, gas)	No data available
k) Upper explosion limit	Mixture has not been tested
l) Lower explosion limit	Mixture has not been tested
m) Vapour Pressure	Mixture has not been tested
n) Relative density	Mixture has not been tested
o) Specific gravity	No data available
p) Solubility	No data available
q) Partition coefficient: n-octanol/water	No data available
r) Explosive properties	Mixture has not been tested

9.2 Other safety information

No data available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

None known.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reaction has not been reported.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No data available.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

CAS: 55965-84-9, CMIT/MIT (mixture of 5-chloro-2-methyl-3(2H)-isothiazolone with 2-methyl-3(2H)-isothiazolone)

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 (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

LD50 (oral, rat/mouse)	53 mg/kg; 481 mg/kg (rat)
LC50 (inhalation, rat/mouse)	1.23mg/l (rat)
Irritation:	Conclusive but not sufficient for classification.
Corrosivity:	Conclusive but not sufficient for classification.
Sensitisation:	May cause sensitisation by skin contact.
Mutagenicity:	Conclusive but not sufficient for classification.
Carcinogenicity:	Conclusive but not sufficient for classification.
Reproductive toxicity:	Conclusive but not sufficient for classification.
Specific target organ toxicity - single exposure:	Conclusive but not sufficient for classification.
Specific target organ toxicity - repeated exposure:	Conclusive but not sufficient for classification.
Aspiration hazard:	Conclusive but not sufficient for classification.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

The environmental impact of this product has not been fully investigated.

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

No data available.

12.6 Other adverse effects

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

13.2 Contaminated packaging

Dispose of as unused product.

SECTION 14 TRANSPORT INFORMATION

14.1 UN number

Not applicable.

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 (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packaging group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Not applicable.

SECTION 15 REGULATORY INFORMATION

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

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

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 OTHER INFORMATION

Date of issue: 8.3.2018

Supersedes date:

Full text of H-Statements

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H400 Very toxic to aquatic life.

H410 Very 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

Stop Solution (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

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

1.1 Product identifier

Trade name: Stop Solution (RAF136R Kit)

Additional identification: 1M Phosphoric acid (H₃PO₄)

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

Assay component – stop solution.

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:

Corrosive to metals (Category 1), H290

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Hazard pictogram:



Signal word:

Warning

Hazard statement:

H290 May be corrosive to metals.

Precautionary statement(s)

None

Supplemental hazards statements

None

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.

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

Stop Solution (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

Ingredient	Conc. %	CAS-Nr.	EC-Nr.	Index-Nr.
Phosphoric acid	≥ 5 – < 10	7664-38-2	231-633-2	015-011-00-6

Classification according to regulation 1272/2008/EC:

Met. Corr. 1; H290

Concentration limits: ≥ 25 %: Skin Corr. 1B, H314; 10 - < 25 %: Skin Irrit. 2, H315; 10 - < 25 %: Eye Irrit. 2, H319

For full text of 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: Take off contaminated clothing and shoes immediately. 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

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available.

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

Stop Solution (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

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

6.4 Reference to other sections

For disposal see section 13.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. 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.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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

a) Eye/face protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

b) 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.

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

Stop Solution (RAF136R Kit)

Date of issue: 8.3.2018

Supersedes date:

- c) Body Protection:** Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- d) 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).
- e) Control of environmental exposure:** Do not let product enter drains.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES
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9.1 Information on basic physical and chemical properties

a) Appearance	Form: clear, liquid Colour: colourless
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

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

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10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Strong bases, Powdered metals.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - oxides of phosphorus. Other decomposition products - No data available.

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

Specific target organ toxicity - repeated exposure:

No data available

Aspiration hazard:

No data available

Additional Information:

RTECS: Not available

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea.

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.

MATERIAL SAFETY DATA SHEET

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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

Offer surplus and non-recyclable solutions to a licensed disposal company.

13.2 Contaminated packaging

Dispose of as unused product.

SECTION 14 TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 1805 IMDG: 1805 IATA: 1805

14.2 UN proper shipping name

ADR/RID: PHOSPHORIC ACID SOLUTION
 IMDG: PHOSPHORIC ACID SOLUTION
 IATA: Phosphoric acid, solution

14.3 Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA: 8

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

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

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

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Date of issue: 8.3.2018

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Council (EC) No. 1907/2006 (REACH). Regulation of the European Parliament and the Council
(EC) No. 1272/2008 (CLP). Commission Regulation (EU) No. 830/2015.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 OTHER INFORMATION

Date of issue: 8.3.2018

Supersedes date:

Full text of H-Statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

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.