

## **SAFETY DATA SHEET**

Product name	Product reference
BIOPHENTM AT anti-(h)-Xa LRT	221123
BIOPHEN™ AT anti-(h)-Xa LRT	221127

R1	Human Factor Xa
R2	Factor Xa substrate



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# Safety data sheet according to 1907/2006/EC, Article 31

Printing date 29.02.2024 Version number 4 Revision: 29.02.2024

## 1 Identification of the substance/mixture and of the company/undertaking

· Product identifier

· Trade name: Human Factor Xa

· Article number: R1

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

No further relevant information available.

- · Application of the substance / the mixture In vitro medical device for professional use
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

HYPHEN BioMed 155 rue d'Eragny

F-95000 NEUVILLE-SUR-OISE

**FRANCE** 

· Further information obtainable from:

info@hyphen-biomed.com

+33/1/34 40 65 10

Emergency telephone number:

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

### 2 Hazards identification

- · Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the GB CLP regulation.

- · Label elements
- · Labelling according to Regulation (EC) No 1272/2008 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

## 3 Composition/information on ingredients

- · Chemical characterisation: Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

· D	anger	ous c	comp	onents:
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CAS: 56-81-5 glycerol substance with a Community workplace exposure limit <30% EINECS: 200-289-5

· Additional information: For the wording of the listed hazard phrases refer to section 16.

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Trade name: Human Factor Xa

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## 4 First aid measures

- · Description of first aid measures
- · General information:

No special measures required.

Seek immediate medical advice.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

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

## 5 Firefighting measures

- · Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

### **6 Accidental release measures**

- · Personal precautions, protective equipment and emergency procedures
- Wear protective clothing.
- · Environmental precautions:

Dilute with plenty of water.

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

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 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.

## 7 Handling and storage

- · Handling:
- · Precautions for safe handling

No special measures required.

Open and handle receptacle with care.

- · Information about fire and explosion protection: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.

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· Further information about storage conditions:

None.

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

## 8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see section 7.
- · Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

## 56-81-5 glycerol

WEL Long-term value: 10 mg/m<sup>3</sup>

- · Additional information: The lists valid during the making were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not eat or drink while working.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Face protection

### 9 Physical and chemical properties

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

Form: Fluid

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Trade name: Human Factor Xa

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Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gas):	Not applicable.
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not determined.
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
water:	Not determined.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Other information	No further relevant information available.

## 10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

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Trade name: Human Factor Xa

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## 11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- · LD/LC50 values relevant for classification:

56-81-5 glycerol

Oral LD50 12,600 mg/kg (rat)

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

## 12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Avoid transfer into the environment.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

### 13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Smaller quantities can be disposed of with household waste.

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.

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Dispose of packaging according to regulations on the disposal of packagings.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

4 Transport information	
· UN-Number · ADR, IMDG, IATA	not regulated
· UN proper shipping name · ADR, IMDG, IATA	not regulated
· Transport hazard class(es)	
· ADR, ADN, IMDG, IATA · Class	not regulated
· Packing group · ADR, IMDG, IATA	not regulated
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
Transport in bulk according to Anno Marpol and the IBC Code	ex II of Not applicable.
· UN "Model Regulation":	not regulated

## 15 Regulatory information

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

· Poisons Act	
· Regulated explosives precursors	
7647-01-0 hydrogen chloride	10%
· Regulated poisons	
None of the ingredients is listed.	
· Reportable explosives precursors	
None of the ingredients is listed.	
· Reportable poisons	
None of the ingredients is listed.	

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## 16 Other information

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

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· Department issuing SDS:

#### · Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning

the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

\* Data compared to the previous version altered.



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## 1 Identification of the substance/mixture and of the company/undertaking

· Product identifier

· Trade name: Factor Xa substrate

· Article number: R2

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

No further relevant information available.

· Application of the substance / the mixture In vitro medical device for professional use

Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

HYPHEN BioMed 155 rue d'Eragny

F-95000 NEUVILLE-SUR-OISE

FRANCE

· Further information obtainable from:

info@hyphen-biomed.com

+33/1/34 40 65 10

· Emergency telephone number:

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

### 2 Hazards identification

- · Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



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

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

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

· Hazard pictograms



GHS07

- · Signal word Warning
- Hazard-determining components of labelling:

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

· Hazard statements

May cause an allergic skin reaction.

· Precautionary statements

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

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

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Other hazards

· Results of PBT and vPvB assessment

PBT: Not applicable.vPvB: Not applicable.

## 3 Composition/information on ingredients

· Chemical characterisation: Substances

· CAS No. Description

7732-18-5 water, distilled, conductivity or of similar purity

· Identification number(s) · EC number: 231-791-2

### **Dangerous components:**

### 4 First aid measures

- · Description of first aid measures
- General information:

Immediately remove any clothing soiled by the product.

Seek immediate medical advice.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed

No further relevant information available.

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

## 5 Firefighting measures

- Extinguishing media
- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

ЗB



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### **6 Accidental release measures**

· Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

· Environmental precautions:

Dilute with plenty of water.

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

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to section 13.

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.

## 7 Handling and storage

- · Handling:
- · Precautions for safe handling Open and handle receptacle with care.
- · Information about fire and explosion protection: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · 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:

None.

2 - 8°C

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

### 8 Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see section 7.
- · Control parameters
- · Ingredients with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists valid during the making were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not eat or drink while working.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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Trade name: Factor Xa substrate

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#### · 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.

#### Material of gloves

· Vapour density

· Evaporation rate

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.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Face protection

## 9 Physical and chemical properties

· Information on basic physical and chemical properties · General Information		
· Appearance:		
Form:	Fluid	
Colour:	Colourless	
· Odour:	Odourless	
· Odour threshold:	Not determined.	
· pH-value:	Not determined.	
· Change in condition	l lo defense in e d	

Ododi tillesiloid.	Not determined.
· pH-value:	Not determined.
<ul> <li>Change in condition</li> <li>Melting point/freezing point:</li> <li>Initial boiling point and boiling range:</li> </ul>	Undetermined. Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gas):	Not applicable.
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
· Vapour pressure:	Not determined.
· Density: · Relative density	Not determined. Not determined.

Not determined. Not determined.

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Trade name: Factor Xa substrate

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· Solubility in / Miscibility with	
water:	Not determined.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No further relevant information available.

## 10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

## 11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation
- May cause an allergic skin reaction.
- · Additional toxicological information:
- · 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.

## 12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.

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- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Avoid transfer into the environment.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

## 13 Disposal considerations

- · Waste treatment methods
- · Recommendation

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

· Uncleaned packaging:

14 Transport information

· UN "Model Regulation":

Recommendation:

Disposal must be made according to official regulations.

Dispose of packaging according to regulations on the disposal of packagings.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

<u> </u>	
· UN-Number · ADR, IMDG, IATA	not regulated
· UN proper shipping name · ADR, IMDG, IATA	not regulated
· Transport hazard class(es)	
· ADR, ADN, IMDG, IATA · Class	not regulated
· Packing group · ADR, IMDG, IATA	not regulated
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Anne Marpol and the IBC Code	ex II of Not applicable.

not regulated

GB



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Trade name: Factor Xa substrate

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## 15 Regulatory information

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

None of the ingredients is listed.

Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

None of the ingredients is listed.

· Reportable poisons

None of the ingredients is listed.

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### 16 Other information

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

#### · Relevant phrases

H301 Toxic if swallowed.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

#### Department issuing SDS:

### · Abbreviations and acronyms:

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity – Category 3 Acute Tox. 2: Acute toxicity – Category 2

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

Skin Sens. 1: Skin sensitisation - Category 1

Skin Sens. 1A: Skin sensitisation – Category 1A

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

\* Data compared to the previous version altered.