

	<b>MATERIAL SAFETY DATA SHEET</b> in accordance with Regulation (EC) No 1907/2006 and Regulation (EU) No 830/2015 <b>gb HEMO FXIII (V34L)</b>	MSDS issue date: 14. 7. 2015 MSDS review date: 19. 8. 2021 Version: 1.2
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## SECTION 1 Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product trade name:** gb HEMO FXIII (V34L)  
**Components:** Component Assay qPCR F13 (V34L) (0.4 ml), Component Deionized Water (1 ml), Component Standard WT F13 (V34L) (0.2 ml), Component Standard MUT F13 (V34L) (0.2 ml), Component Standard HET F13 (V34L) (0.2 ml)

**Catalogue no.:** 3209, 3209-25

### 1.2. Relevant purposes of use of the substance or mixture and non-recommended use

**Use of the substance or mixture:** SU 0-2 Other economic activity not related to chemical substances.  
PC 21 Laboratory chemicals  
PROC 15 Use as laboratory reagent

**Non-recommended use:** All use other than recommended.

### 1.3. Detailed information about the material safety data sheet supplier

#### Supplier identification:

**Business name:** GENERI BIOTECH s.r.o.  
**Address:** Hradec Králové 11 - Třebeš, Machkova 587/42, Post code 50011  
**Identification no.:** 632 21 667  
**Telephone no.:** 495 056 314  
**E-mail:** [info@generi-biotech.com](mailto:info@generi-biotech.com)

### 1.4. Emergency telephone numbers

**Medical rescue emergency:** 155  
**Fire rescue emergency:** 150  
**Police:** 158  
**European emergency line:** 112

#### Toxicological information center:

**Tel.:** +420 224 919 293; +420 224 915 402  
**Residence:** Klinika pracovního lékařství 1. LF UK a VFN, Na Bojišti 1, 120 00 Praha 2

## SECTION 2 Hazards identification

### 2.1. Classification of the mixture

#### Classification of the mixture in accordance with Regulation (EC) 1272/2008:

**Hazardous feature:** Not known.  
**H-Phrases:** Not assigned.

#### The most important physicochemical effects:

Not known.

#### The most important negative effects on human health:

Not known.

#### The most important negative effects on environment:

Not known.

**Components classification in accordance with Regulation (EC) 1272/2008:****Component Assay qPCR F13 (V34L)**

Hazardous feature: Not known.

H-Phrases: Not assigned.

**The most important physicochemical effects:**

Not known.

**The most important negative effects on human health:**

Not known.

**The most important negative effects on environment:**

Not known.

**Component Deionized Water**

Hazardous feature: Not known.

H-Phrases: Not assigned.

**The most important physicochemical effects:**

Not known.

**The most important negative effects on human health:**

Not known.

**The most important negative effects on environment:**

Not known.

**Component Standard WT F13 (V34L)**

Hazardous feature: Not known.

H-Phrases: Not assigned.

**The most important physicochemical effects:**

Not known.

**The most important negative effects on human health:**

Not known.

**The most important negative effects on environment:**

Not known.

**Component Standard MUT F13 (V34L)**

Hazardous feature: Not known.

H-Phrases: Not assigned.

**The most important physicochemical effects:**

Not known.

**The most important negative effects on human health:**

Not known.

**The most important negative effects on environment:**

Not known.

**Component Standard HET F13 (V34L)**

Hazardous feature: Not known.

H-Phrases: Not assigned.

**The most important physicochemical effects:**

Not known.

**The most important negative effects on human health:**

Not known.

**The most important negative effects on environment:**

Not known.

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## 2.2. Label elements

### Classification of a mixture in accordance with Regulation (EC) 1272/2008:

Warning sign: Not assigned.

Signal word: Not assigned.

H-Phrases: Not assigned.

P-Phrases: Not assigned.

### Components classification in accordance with Regulation (EC) 1272/2008:

#### Component Assay qPCR F13 (V34L)

Warning sign: Not assigned.

Signal word: Not assigned.

H-Phrases: Not assigned.

#### Component Deionized Water

Warning sign: Not assigned.

Signal word: Not assigned.

H-Phrases: Not assigned.

#### Component Standard WT F13 (V34L)

Warning sign: Not assigned.

Signal word: Not assigned.

H-Phrases: Not assigned.

#### Component Standard MUT F13 (V34L)

Warning sign: Not assigned.

Signal word: Not assigned.

H-Phrases: Not assigned.

#### Component Standard HET F13 (V34L)

Warning sign: Not assigned.

Signal word: Not assigned.

H-Phrases: Not assigned.

## 2.3. Other hazards

Not known.

## SECTION 3 Composition/Information on ingredients

### 3.1. Substances

Product name:

Registration Number:

Other identification data of hazardous substances:

Index Number CAS EC number Registration Number	Chemical name	Concentration (% weight)	Classification in accordance with EC 1272/2008
-	-	-	-

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### 3.2. Mixtures

**Product name:** gb HEMO FXIII (V34L)

**Catalogue number:** 3209, 3209-025

**Other identification data of hazardous substances:**

Ingredient name	Index number CAS EC number Registration number	Chemical name	Concentration (% weight)	Classification in accordance with EC 1272/2008
Assay qPCR F13 (V34L) (0.4 ml)	-	Contains no hazardous substances	0.1 - 1	Not classified
Deionized Water (1 ml)	-	Contains no hazardous substances	0.1 - 1	Not classified
Standard WT F13 (V34L) (0.2 ml)	-	Contains no hazardous substances	0.1 - 1	Not classified
Standard MUT F13 (V34L) (0.2 ml)	-	Contains no hazardous substances	0.1 - 1	Not classified
Standard HET F13 (V34L) (0.2 ml)	-	Contains no hazardous substances	0.1 - 1	Not classified

## SECTION 4 First aid measures

### 4.1. Description of first aid measures

**General information:**

Symptomatic treatment.

**In case of inhalation:**

Remove the person afflicted to fresh air, keep him/her calm, warm and in comfortable position. In case of breathing difficulties ensure medical help.

**In case of contact with skin:**

Remove contaminated clothing. Wash irritated skin with warm water for 15 minutes. If difficulties persist, seek medical help.

**In case of contact with eyes:**

Rinse eyes with sufficient amount of water for at least 15 minutes while lifting both upper and lower eyelids. If difficulties persist, seek medical help.

**In case of ingestion:**

Do not induce vomiting. Wash out mouth and drink larger amount of water. In case of health difficulties seek medical help. Do not administer anything orally to unconscious person.

**Protection of first aid providers:**

Based on the extent of the provided aid it is necessary to use protective equipment.

**Other data:**

Further details about providing first aid, especially in severe cases, may be consulted with Toxicological information center, **non-stop telephone line:** 224 919 293, 224 915 402, fax 224 914 570.

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#### 4.2. The most important acute and delayed symptoms and effects

**Risk for eyes:** Not known.

**Risk in case of contact with skin:** Not known.

**Risk in case of ingestion:** Not known.

**Risk in case of inhalation:** Not known.

#### 4.3. Directions regarding immediate medical help and special treatment

See point 4.1

### SECTION 5 Firefighting measures

#### 5.1. Extinguishing media

**Product is not flammable.**

**Suitable extinguishing media:** Use extinguishing media appropriate for the type of fire and surrounding conditions – foam, fragmented water stream, dry powder, carbon dioxide.

**Unsuitable extinguishing media:** Full water stream – fire could spread.

#### 5.2. Special hazards arising from substance or mix

**Hazardous combustion products:** carbon dioxide, carbon monoxide, nitrogen oxides, water vapour.

#### 5.3. Advice for firefighters

Use complete chemically resistant protective overall and breathing apparatus.

### SECTION 6 Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1 For non-emergency personnel:

**Protective equipment:** Use personal protective equipment – safety gloves, safety goggles, protective clothing and footwear.

**Emergency procedures:** In case of spilling or fire evacuate the area. Prevent access of unauthorized people.

##### 6.1.2 For emergency personnel:

**Protective equipment:** In case of spilling or fire use complete protective overall and breathing apparatus.

#### 6.2. Environmental precautions

Prevent leakage into soil, surface and ground water and sewage.

#### 6.3. Methods and material for containment and cleaning up

##### 6.3.1 Methods for containment:

Store in a resealable container. In case of spilling prevent entering drains.

##### 6.3.2 Cleaning up methods:

Dust with absorbent non-flammable substance (vermiculite, sand, soil etc.) and collect mechanically. Place the used sorbent into suitable container and mark it as a waste. Dispose of in accord with valid waste management regulations.

Disposal - see SECTION 13

#### 6.4. Reference to sections

Detailed information is available in sections 8 and 13.

### SECTION 7 Handling and storage

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## 7.1. Precautions for safe handling

### 7.1.1 Safety measures

**Fire precautions:** The product is inflammable.

**Precautions for prevention of aerosol and dust forming:** Ensure sufficient ventilation of workplace.

**Environmental precautions:** Prevent release into the environment.

### 7.1.2 Directions regarding general work hygiene

Respect safety rules and use protective means when manipulating the substance. Do not inhale vapours and aerosols. Do not eat, drink or smoke while at workplace. Wash your hands and face when finished working. Wash stained clothing and clean footwear before next use. Apply regenerating cream on your hands.

## 7.2. Conditions for safe substance and mixture storage, including incompatible substances and mixtures

**Technical precautions and storage conditions:** The original GENERI BIOTECH packaging ensures safe storage. Respect storage requirements stated on the packaging. Keep the product away from food, beverages, fodders and medications.

**Packaging materials:** Store in closed and properly marked container.

**Requirements for storage space and storage containers:** Storage space must meet valid legal requirements.

**Other information about storage conditions:**

Not known.

## 7.3. Specific end use(s)

See SECTION 1.2.

## SECTION 8 Exposure controls / Personal protection

### 8.1. Control parameters

Component Assay qPCR F13 (V34L) (0.4 ml) – Contains no substances with occupational exposure limit values in the workplace.

Component Deionized Water (1 ml) – Contains no substances with occupational exposure limit values in the workplace.

Component Standard WT F13 (V34L) (0.2 ml) – Contains no substances with occupational exposure limit values in the workplace.

Component Standard MUT F13 (V34L) (0.2 ml) – Contains no substances with occupational exposure limit values in the workplace.

Component Standard HET F13 (V34L) (0.2 ml) – Contains no substances with occupational exposure limit values in the workplace.

### 8.2. Exposure control

#### 8.2.1 Suitable technical controls:

**Precautions for exposure control while using substance/mixture:** Store in closed container. Install proper room ventilation in workplace and storage space. Prevent contact with eyes and skin. Use personal protective means. Do not eat, drink or smoke at workplace where the product is handled. Always wash your hands when finished working.

**Technical measures for exposure control:** Ensure effective ventilation of workplace.

#### 8.2.2 Personal protective means:

##### 8.2.2.1 Eyes and face protection

Safety goggles.

**8.2.2.2 Skin protection****Hands protection:** Safety gloves (PVC, latex, neoprene)**Other skin protection:** protective clothing and footwear**8.2.2.3 Respiratory protection**

Not a possible way of exposure.

**8.2.2.4 Thermal hazard**

The mixture is inflammable.

**8.2.3 Environmental exposure control**

Prevent soil and water contamination.

**SECTION 9 Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance:	liquid
Odour:	non perceptible
Odour threshold:	not applicable
pH:	not determined
Melting point/Freezing point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	not determined
Evaporation rate:	not determined
Flammability (solid, gas):	not determined
Upper/lower flammability limits:	not determined
Vapour pressure:	not determined
Vapour density:	not determined
Relative density:	not determined
Solubility:	not determined
Partition coefficient n-octanol/water:	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
Explosive properties:	not determined
Oxidising properties:	not determined

**9.2. Other information**

not available

**SECTION 10 Stability and reactivity****10.1. Reactivity**

The substance is non-reactive in normal conditions.

**10.2. Chemical stability**

The substance is stable in normal conditions.

**10.3. Possibility of hazardous reactions**

Not known.

**10.4. Conditions to avoid**

Not known.

**10.5. Incompatible materials**

Not known.

**10.6. Hazardous decomposition products**

Not known.

**SECTION 11 Toxicological information****11.1. Information on toxicological effects**

<b>Acute toxicity:</b>	not determined
<b>Skin corrosion/irritation:</b>	not determined
<b>Serious eye damage/irritation:</b>	not determined
<b>Respiratory or skin sensitisation:</b>	not determined
<b>Germ cell mutagenicity:</b>	not determined
<b>Carcinogenicity:</b>	not determined
<b>Reproductive toxicity:</b>	not determined
<b>STOT-single exposure:</b>	not determined
<b>STOT-repeated exposure:</b>	not determined
<b>Aspiration hazard:</b>	not determined
<b>Information on likely routes of exposure:</b>	not determined

**Symptoms related to the physical, chemical and toxicological characteristics:**

not known

**Delayed and immediate effects as well as chronic effects from short and long-term exposure:**

not known

**SECTION 12 Ecological information****12.1. Toxicity**

Not determined.

**12.2. Persistence and degradability**

Not determined.

**12.3. Bioaccumulative potential**

Not determined.

**12.4. Mobility in soil**

Not determined.

**12.5. Results of PBT and vPvB assessment**

Not determined.

**12.6. Other adverse effects**

Not determined.

**SECTION 13 Disposal considerations****13.1. Waste treatment methods****13.1.1 Product/container disposal:****Product disposal methods:** The product must be disposed of in accordance with valid and effective waste management law and related legal regulations.**Contaminated container disposal methods:** The container must be disposed of in accordance with valid and effective waste management law and related legal regulations.**Other information:** All waste must be handed over to a subject licensed for waste management. Waste marking must correspond with valid identifiers stated in waste catalogue.**13.1.2 Important information for waste management:**

Residues of the substance and container should be treated as a waste.



**SECTION 14 Transport information**

The product is safe for transport.

**14.1. UN number**

-

**14.2. UN proper shipping name**

-

**14.3. Transport hazard class(es)**

-

**14.4. Packing group**

-

**14.5. Environmental hazards**

-

**14.6. Special precautions for user**

-

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

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**SECTION 15 Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Act No. 350/2011 Coll. (Czech Republic) on chemicals and chemical mixtures.

Act No. 541/2020 Coll. (Czech Republic) on waste, as amended.

Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended.

Commission Regulation (EU) No. 453/2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

European Parliament and of the Council Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Regulation (EU) No 2015/830 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Act No. 93/2012 Coll. (Czech Republic), amending Act No. 361/2007 Coll., which states health protection conditions, as amended by Act No. 68/2010 Coll.

Regulation No. 8/2021 Coll. (Czech Republic) waste catalogue and assessment of waste properties ,as amended

Regulation No. 273/2021 Coll. (Czech Republic) on waste management details, as amended.

**15.2. Chemical safety assessment**

Not executed yet.

**SECTION 16 Other information****16.1 Training instructions:**

Inform employees about the content of this safety data sheet and about general rules concerning treatment of chemicals and formulations. Carry out training at least once a year.

**16.2 Important literature and data source references**

Registered substances database ECHA, as of 19 August 2021

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Valid legal regulations

**16.3 Abbreviations:**

PBT	Persistent, bioaccumulative and toxic
vPvB	Highly persistent and highly bioaccumulative
REACH	Registration, evaluation, authorization and restriction of chemical substances
ECHA	European chemical agency
PEL	Permissible exposure limit
NPK-P	Highest permissible concentration
PVC	Polyvinyl chloride

**16.4 Other information**

Information provided in this safety data sheet is based on the state of manufacturer's knowledge and experience as of the date of issue of this document. It does not represent any contract guarantee on product's qualitative features and is valid only in connection with usual manipulation under normal conditions and with data specified in technical manual. Any other use of this product, eventually in combination with other products and methods, is user's own responsibility.