

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/06/2020

Version 1

Reviewed on 02/06/2020

1 Identification

· **Product identifier**

· **Trade name:** *NutriStem® hPSC XF*

· **Article number:** 05-100-1

· **Application of the substance / the mixture**

NutriStem® hPSC XF Medium is a widely published, defined, xeno-free, serum-free cell culture medium designed to support the growth and expansion of human induced pluripotent stem (hiPS) and human embryonic stem (hES) cells. Protocols have been established around the world for applications ranging from derivation to differentiation. NutriStem® hPSC XF Medium offers the ability to culture cells in a completely xeno-free medium without the need for high levels of basic FGF and other stimulatory growth factors and cytokines. NutriStem® hPSC XF Medium exhibits a consistent media performance and predictable cellular behavior derived from a defined xeno-free formulation as well as increased reproducibility shown in long-term growth of over 50 passages.

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

*Biological Industries Israel Beit Haemek Ltd.
 BEIT HAEMEK 2511500
 ISRAEL
 michalb@bioind.com*

· **Information department:** Product safety department.

· **Emergency telephone number:** During normal opening times: +972/4/9962467

2 Hazard(s) identification

· **Classification of the substance or mixture**

The product is not classified, according to the Globally Harmonized System (GHS).

· **Label elements**

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/06/2020

Version 1

Reviewed on 02/06/2020

Trade name: NutriStem® hPSC XF

(Contd. of page 1)

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components: Void**

4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **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 a doctor.
- **After swallowing:** Wash mouth with water if person is conscious and seek medical advice.
- **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 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **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** Not required
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** No special measures required.
- **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 precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** (-10)-(-20) °C
- **Information about storage in one common storage facility:** Not required

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/06/2020

Version 1

Reviewed on 02/06/2020

Trade name: NutriStem® hPSC XF

(Contd. of page 2)

- **Further information about storage conditions:** Avoid exposure to light.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components 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 that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **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
- **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:** Safety glasses

9 Physical and chemical properties

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

Form:	Solution
Color:	Red
Odor:	uncharacteristic
Odor threshold:	Not determined.
- **pH-value:** Not applicable.
- **Change in condition**

Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	100 °C (212 °F)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/06/2020

Version 1

Reviewed on 02/06/2020

Trade name: NutriStem® hPSC XF

(Contd. of page 3)

· Decomposition temperature:	<i>Not determined.</i>
· Auto igniting:	<i>Product is not selfigniting.</i>
· Danger of explosion:	<i>Product does not present an explosion hazard.</i>
· Explosion limits:	
Lower:	<i>Not determined.</i>
Upper:	<i>Not determined.</i>
· Vapor pressure at 20 °C (68 °F):	<i>23 hPa (17.3 mm Hg)</i>
· Density:	<i>Not determined.</i>
· Relative density	<i>Not determined.</i>
· Vapor density	<i>Not determined.</i>
· Evaporation rate	<i>Not determined.</i>
· Solubility in / Miscibility with Water:	<i>Fully miscible.</i>
· Partition coefficient (n-octanol/water):	<i>Not determined.</i>
· Viscosity:	
Dynamic at 20 °C (68 °F):	<i>0.952 mPas</i>
Kinematic:	<i>Not determined.</i>
· Solvent content:	
Organic solvents:	<i>0.0 %</i>
Water:	<i>>98.0 %</i>
VOC content:	<i><0.01 %</i>
	<i><0.1 g/l</i>
Solids content:	<i><2.0 %</i>
· Other information	<i>No further relevant information available.</i>

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:**
- **Primary irritant effect:**
- **on the skin:** *No irritant effect.*
- **on the eye:** *No irritating effect.*
- **Sensitization:** *No sensitizing effects known.*

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/06/2020

Version 1

Reviewed on 02/06/2020

Trade name: NutriStem® hPSC XF

(Contd. of page 4)

· **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

10108-64-2 | cadmium chloride

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** Not toxic to the aquatic life

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:** Not hazardous for water.

· **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:** No special recommendation

· **Uncleaned packagings:**

· **Recommendation:** No special recommendation

14 Transport information

· **UN-Number**

· **DOT, IMDG, IATA** not regulated

· **UN proper shipping name**

· **DOT, IMDG, IATA** not regulated

· **Transport hazard class(es)**

· **DOT, ADN, IMDG, IATA**

· **Class** not regulated

(Contd. on page 6)

Safety Data Sheet

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Version 1

Reviewed on 02/06/2020

Trade name: NutriStem® hPSC XF

(Contd. of page 5)

- | | |
|--|-----------------|
| · Packing group | |
| · DOT, IMDG, IATA | not regulated |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | not regulated |

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· Hazardous Air Pollutants

7647-01-0	hydrogen chloride
10034-96-5	Mangan(II)-sulfat-Monohydrat
10101-97-0	nickel sulfate hexahydrate
7783-00-8	selenious acid
10108-64-2	cadmium chloride
7791-13-1	Cobalt(II) chloride hexahydrate

· Proposition 65
· Chemicals known to cause cancer:

10101-97-0	nickel sulfate hexahydrate
10108-64-2	cadmium chloride

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

10101-97-0	nickel sulfate hexahydrate
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· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories
· EPA (Environmental Protection Agency)

10034-96-5	Mangan(II)-sulfat-Monohydrat	D
7783-00-8	selenious acid	D
10326-27-9	barium chloride, dihydrate	D, CBD(inh), NL(oral)
10108-64-2	cadmium chloride	B1

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/06/2020

Version 1

Reviewed on 02/06/2020

Trade name: NutriStem® hPSC XF

(Contd. of page 6)

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

10101-97-0 nickel sulfate hexahydrate

10108-64-2 cadmium chloride

 · **GHS label elements** Void

 · **Hazard pictograms** Void

 · **Signal word** Void

 · **Hazard statements** Void

 · **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.

 · **Department issuing SDS:** Product safety department.

 · **Contact:** Ms. BADICHI GITLIN

 · **Date of preparation / last revision** 02/06/2020

 · **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit