

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

- **Product identifier**
- **Trade name:** Fetal Bovine Serum (FBS), European Grade, Heat Inactivated
- **Article number:** 04-127-1
- **CAS Number:**  
9006-53-5
- **EC number:**  
232-690-6
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture**  
European grade FBS sourced in South America is used in a broad range of cell culture applications. Promotes steady, healthy cell growth. Sterile A-Triple 0.1um filtered.  
Heat inactivation of serum is performed by raising the temperature of the serum to 56°C and maintaining that temperature for 30 minutes. Heat inactivation is the method of choice to destroy complement proteins activity.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Biological Industries Israel Beit Haemek Ltd.  
BEIT HAEMEK 25115  
ISRAEL  
michalb@bioind.com
- **Further information obtainable from:** Product safety department.
- **Emergency telephone number:** During normal opening times: +972/4/9962467

## 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The substance is not classified according to the 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:** Substances
- **CAS No. Description**  
9006-53-5 Fetal Bovine Serum
- **Identification number(s)**
- **EC number:** 232-690-6

## 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.
- **After swallowing:** If symptoms persist consult doctor.

(Contd. on page 2)

GB

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 23.05.2017

Version 1

Revision date: 23.05.2017

**Trade name: Fetal Bovine Serum (FBS), European Grade, Heat Inactivated**

(Contd. of page 1)

- **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:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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:** Do not allow to enter sewers/ surface or ground water.
- **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 measures required.
- **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:** (-10) - (-20) °C
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from exposure to the light.
- **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 item 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:**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/substance/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

(Contd. on page 3)

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(Contd. of page 2)

- **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.

- **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:** Not required.

### 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

|                  |                 |
|------------------|-----------------|
| Form:            | Liquid          |
| Colour:          | Not determined. |
| Odour:           | Characteristic  |
| Odour threshold: | Not determined. |

- **pH-value:** Not applicable.

- **Change in condition**

|                              |               |
|------------------------------|---------------|
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | Undetermined. |

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**

|                            |                 |
|----------------------------|-----------------|
| Decomposition temperature: | Not determined. |
|----------------------------|-----------------|

- **Self-igniting:** Not determined.

- **Danger of explosion:** 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:** Fully miscible.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

|            |                 |
|------------|-----------------|
| Dynamic:   | Not determined. |
| Kinematic: | Not determined. |

- **Solvent content:**

|                   |        |
|-------------------|--------|
| Organic solvents: | 0.0 %  |
| VOC (EC)          | 0.00 % |

- **Other information** No further relevant information available.

GB

(Contd. on page 4)

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(Contd. of page 3)

### 10 Stability and reactivity

- **Reactivity**
- **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:** Not available
- **on the eye:** Not available
- **Sensitisation:** Not available
- **Additional toxicological information:**  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.  
The substance is not subject to classification according to the latest version of the EU lists.

### 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.
- **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.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

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

(Contd. on page 5)

GB

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(Contd. of page 4)

- |                                                                                  |                 |
|----------------------------------------------------------------------------------|-----------------|
| <b>· UN proper shipping name</b>                                                 |                 |
| <b>· ADR, ADN, IMDG, IATA</b>                                                    | not regulated   |
| <b>· Transport hazard class(es)</b>                                              |                 |
| <b>· ADR, ADN, IMDG, IATA</b>                                                    |                 |
| <b>· Class</b>                                                                   | not regulated   |
| <b>· Packing group</b>                                                           |                 |
| <b>· ADR, IMDG, IATA</b>                                                         | not regulated   |
| <b>· Environmental hazards:</b>                                                  |                 |
| <b>· Marine pollutant:</b>                                                       | No              |
| <b>· Special precautions for user</b>                                            | Not applicable. |
| <b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| <b>· UN "Model Regulation":</b>                                                  | -               |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **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 MSDS:** Product safety department.

· **Contact:** Ms. BADICHI GITLIN

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)