# Safety Data Sheet

Fetal Bovine Serum

According to Regulation (EC) No. 1907/2006 (REACH)

| | |
|---|---|
| Date of compilation | 04.10.2017 |
| Revision Date | 01.10.2024 |
| Version | 007/10.2024 |
| Replaces version of | 28.08.2023 (Version 006/08.2023) |

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

### Product identifiers

Product name: Fetal Bovine Serum

Catalogue No. & Product name:

| | |
|---|---|
| 10-FBS-11F | – Fetal Bovine Serum Advanced (FBS Minis), Collected in South America |
| FBS-11A | – Fetal Bovine Serum Advanced (FBS Advanced), Collected in South America |
| FBS-11B | – Fetal Bovine Serum Advanced (FBS Advanced), Collected in South America |
| FBS-HI-11A | – Fetal Bovine Serum Advanced (FBS Advanced), Heat Inactivated (HI), Collected in South America |
| FBS-HI-11B | – Fetal Bovine Serum Advanced (FBS Advanced), Heat Inactivated (HI), Collected in South America |
| 10-FBS-12F | – Fetal Bovine Serum (FBS Minis), Collected in South America |
| FBS-12A | – Fetal Bovine Serum (FBS), Collected in South America |
| FBS-12B | – Fetal Bovine Serum (FBS), Collected in South America |
| FBS-CS-12A | – Fetal Bovine Serum (FBS), Charcoal Stripped, Collected in South America |
| FBS-CS-12B | – Fetal Bovine Serum (FBS), Charcoal Stripped, Collected in South America |
| FBS-DIA-12A | – Fetal Bovine Serum (FBS), Dialyzed, Collected in South America |
| FBS-DIA-12B | – Fetal Bovine Serum (FBS), Dialyzed, Collected in South America |
| FBS-ED-12B | – Fetal Bovine Serum (FBS), Exosome Depleted, Collected in South America |
| FBS-ED-12F | – Fetal Bovine Serum (FBS), Exosome Depleted, Collected in South America |
| FBS-ED-12G | – Fetal Bovine Serum (FBS), Exosome Depleted, Collected in South America |
| FBS-ES-12A | – Fetal Bovine Serum, Embryonic Stem Cell Pre-tested (ES Cell FBS), Collected in South America |
| FBS-ES-12B | – Fetal Bovine Serum, Embryonic Stem Cell Pre-tested (ES Cell FBS), Collected in South America |
| FBS-GI-12A | – Fetal Bovine Serum (FBS), Gamma Irradiated, Collected in South America |
| FBS-GI-12B | – Fetal Bovine Serum (FBS), Gamma Irradiated, Collected in South America |
| FBS-HI-12A | – Fetal Bovine Serum (FBS), Heat Inactivated, Collected in South America |
| FBS-HI-12B | – Fetal Bovine Serum (FBS), Heat Inactivated, Collected in South America |
| FBS-IG-12A | – Fetal Bovine Serum (FBS), IgG Depleted, Collected in South America |
| FBS-IG-12B | – Fetal Bovine Serum (FBS), IgG Depleted, Collected in South America |
| FBS-LE-12A | – Fetal Bovine Serum (FBS), Low Endotoxin, Collected in South America |
| FBS-LE-12B | – Fetal Bovine Serum (FBS), Low Endotoxin, Collected in South America |
| FBS-TET-12A | – Fetal Bovine Serum (FBS), Tetracycline Negative, Collected in South America |
| FBS-TET-12B | – Fetal Bovine Serum (FBS), Tetracycline Negative, Collected in South America |
| FBS-22A | – Fetal Bovine Serum (FBS), Origin USA |
| FBS-22B | – Fetal Bovine Serum (FBS) Origin USA |
| FBS-HI-22A | – Fetal Bovine Serum (FBS) Heat Inactivated, Origin USA |
| FBS-HI-22B | – Fetal Bovine Serum (FBS) Heat Inactivated, Origin USA |
| FBS-24A | – Fetal Bovine Serum (FBS) BioProcess, 9CFR Tested, Origin USA |
| FBS-24B | – Fetal Bovine Serum (FBS) BioProcess, 9CFR Tested, Origin USA |

REACH No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

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

Identified uses: For research use only.
Not intended for human or animal diagnostic or therapeutic uses.

### Details of the supplier of the safety data sheet

Company: Capricorn Scientific GmbH
Auf der Lette 13 A
35085 Ebsdorfergrund
Germany
Phone: +49 6424 94464 0
E-Mail: info@capricorn-scientific.com
Website: www.capricorn-scientific.com

### Emergency telephone number

Emergency Phone: +49 6424 94464 0 (on workdays, Mon. to Fri. from 8:00 – 16:00 h CET/CEST)

## Section 2 Hazards identification

### Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### Label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required according to Regulation (EC) No 1272/2008.

### 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.

Ecological information:
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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## Section 3 Composition/information on ingredients

### Mixture

Synonyms: FBS

No components need to be disclosed according to the applicable regulations.

## Section 4 First aid measures

### Description of first aid measures

**General notes** Show this material safety data sheet to the doctor in attendance.

**Following skin contact** Wash off with soap and plenty of water. In case of modifications on the skin, seek medical advice with this safety data sheet.

**Following eye contact** Remove contact lenses. Rinse immediately carefully and thoroughly with eyebath or water. If eye irritation persists: Get medical advice/attention.

**Following ingestion** Make victim drink water (two glasses at most). Consult doctor if feeling unwell.
Never give anything by mouth to an unconscious person.
Do not induce vomiting without medical advice.

**Following inhalation** If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**Following swallowing** Make victim drink water (two glasses at most). Consult doctor if feeling unwell.
Never give anything by mouth to an unconscious person.

**Self-protection of the first aider** Consider personal protective equipment as indicated in section 8.

**Most important symptoms and effects, both acute and delayed**
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

**Indication of any immediate medical attention and special treatment needed**
No data available.

## Section 5 Firefighting measures

### Extinguishing media

**Suitable extinguishing media** Foam Carbon dioxide (CO2) Dry powder

**Unsuitable extinguishing media** For this substance/mixture no limitations of extinguishing agents are given.

### Special hazards arising from the substance or mixture

**Hazardous combustion products:** Nature of decomposition products not known.
Combustible.
Development of hazardous combustion gases possible in the event of fire.

**Advice for firefighters** In the event of fire, wear self-contained breathing apparatus.
Suppress (knock down) gases/vapors/mists with a water spray jet.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

## Section 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

**Environmental precautions** Do not let product enter drains.

### Methods and material for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

**Reference to other sections** For disposal see section 13.

## Section 7 Handling and storage

**Precautions for safe handling** For precautions see section 2.

### Conditions for safe storage, including any incompatibilities

**Storage** Conditions: Tightly closed. Stability: Recommended storage temperature: ≤ -20 °C.
Storage class (TRGS 510): 10 - Combustible liquids

**Specific end use(s)** Apart from the uses mentioned in section 1 no other specific uses are stipulated.

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## Section 8 Exposure controls/personal protection

**Control parameters** Components with workplace control parameters.

**Exposure controls**

**Personal protective equipment**

**Respiratory protection** Not required; except in case of aerosol formation.

**Eye protection** Safety glasses tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU).

**Environmental exposure controls** Do not let product enter drains.

## Section 9 Physical and chemical properties

**Information on basic physical and chemical properties**

| | | |
|---|---|---|
| **Physical state** | | dark amber liquid |
| **Colour** | | No data available |
| **Odour (Treshold)** | | No data available |
| **Melting/freezing point** | | No data available |
| **Initial boiling point and range** | | No data available |
| **Flammability (solid, gas)** | | No data available |
| **Upper/lower explosion limit** | | No data available |
| **Flash point** | | No data available |
| **Autoignition temperature** | | No data available |
| **Decomposition temperature** | | No data available |
| **pH** | | 6,8 – 8,2 |
| **Viscosity** | **- Kinematic:** | No data available |
| | **- Dynamic:** | No data available |
| **Water solubility** | | No data available |
| **Partition coefficient [n-octanol/water]** | | No data available |
| **Vapour pressure** | | No data available |
| **Density/Relative density** | | No data available |
| **Relative vapour density** | | No data available |
| **Particle characteristics** | | No data available |
| **Oxidizing properties** | | none |

**Other information** No data available

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## Section 10 Stability and Reactivity

| | |
|---|---|
| **Reactivity** | No data available |
| **Chemical stability** | The product is chemically stable under recommended conditions. |
| **Possibility of hazardous reactions** | No data available |
| **Conditions to avoid** | Heat |
| **Incompatible materials** | Strong oxidizing agents |
| **Hazardous decomposition products** | In the event of fire: see section 5 |

## Section 11 Toxicological information

**Information on toxicological effects**

| | |
|---|---|
| **Acute toxicity** | Oral: No data available<br>Inhalation: No data available<br>Dermal: No data available |
| **Skin corrosion/irritation** | No data available |
| **Serious eye damage/eye irritation** | No data available |
| **Respiratory or skin sensitization** | No data available |
| **Germ cell mutagenicity** | No data available |
| **Carcinogenicity** | No data available |
| **Reproductive toxicity** | No data available |
| **Specific target organ toxicity** | |
| **- single exposure** | No data available |
| **- repeated exposure** | No data available |
| **Aspiration hazard** | No data available |

**Additional Information**

**Endocrine disrupting properties**

**Assessment:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## Section 12 Ecological information

**Toxicity** No data available

**Persistence and degradability** No data available

**Bioaccumulative potential** No data available

**Mobility in soil** No data available

**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.

**Endocrine disrupting properties**

*Product:*

**Assessment :** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**Other adverse effects** No data available

## Section 13 Disposal considerations

**Waste treatment methods**

*Product:* Discourage sewage disposal. Dispose of waste according to applicable legislation.

**Contaminated packaging** Dispose of as unused product. Dispose of waste according to applicable legislation.

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## Section 14 Transport Information

**In accordance with ADR / RID / IMDG / IATA**

| ADR/RID | IMDG | IATA |
|---|---|---|
| **UN number** | | |
| - | - | - |
| **UN proper shipping name** | | |
| Not dangerous goods | Not dangerous goods | Not dangerous goods |
| **Transport hazard classes** | | |
| - | - | - |
| **Packaging group** | | |
| - | - | - |
| **Environmental hazards** | | |
| no | Marine pollutant: no | no |

**Special precautions for user** No data available

**Maritime transport in bulk according to IMO instruments** No data available

## Section 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**Chemical Safety Assessment** For this product a chemical safety assessment was not carried out.

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## Section 16 Other information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product regarding ap-propriate safety precautions. It does not represent any guarantee of the properties of the product.

### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways;
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road;
AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight;
CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation;
DSL - Domestic Substances List (Canada); ECx – Concentration associated with x% response; ELx - Loading rate associated with x% response;
EmS - Emergency Schedule; ENCS - Existing & New Chemical Substances (Japan);
ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice;
IARC - International Agency for Research on Cancer; IATA - International Air Transport Association;
IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;
IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization;
IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods;
IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan);
ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory;
LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose);
MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified;
NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level;
NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals;
OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention;
PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances;
(Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals;
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature;
SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory;
TSCA - Toxic Substances Control Act (United States); UN - United Nations;
UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative