

Version 3.0	Revision Date 23.01.2025	<b>MATERIAL SAFETY DATA SHEET (MSDS)</b>	Date of last issue: 12.04.2023 Date of first issue: 23.02.2023
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**1- IDENTIFICATION: BOTUEMBRYO**

**Catalog number:** BOT.40.0021/ BOT.30.0033/ BOT.30.0060/ BOT.30.0061/  
BOT.20.0020/ BOTU0036

**Product application:** BotuEmbryo is a media of maintaining and transporting embryos at field conditions. Its packing does not require the use of syringes and needles.

**Product exempted from registration at the Ministry of Agriculture, Livestock, and Supply (MAPA): Decree No. 5053, of April 22, 2004, Art. 44-XIII.**

**Company Name:** BOTUPHARMA INDUSTRIA E COMERCIO DE PRODUTOS VETERINARIOS LTDA.

**CNPJ:** 11.195.056/0001-65/I.E.: 224.197.376.119

**Address:** Rua Coronel Fonseca, 2.111 – Jardim Bom Pastor – **Zip Code:** 18.603-495  
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**Phone:** +55 (14) 3112-9000

**Emergency Phone:** +55 (14) 3112-9001

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**2- HAZARDS IDENTIFICATION**

Globally Harmonized System (GHS) Classification.

It is a non-hazardous substance or mixture.

Other Hazards - None.

**Appropriate labeling elements**

Pictograms:

Warning word: WARNING

**3- COMPOSITION/INFORMATION ON INGREDIENTS**

**Physical Form:** Liquid.

**Composition:** Amino acids, vitamins, sugar and preservatives.

**Packing Characteristic:** Pack containing 8 mL. Box with 5 packs, 8 ml each.

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#### **4- FIRST AID MEASURES**

*Inhalation:* Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, contact a TOXICOLOGICAL INFORMATION CENTER or a doctor. Take this MSDS.

*Skin:* Wash exposed skin with sufficient amount of water to remove material. In case of skin irritation: Get medical advice. Take this MSDS.

*Eyes:* Rinse thoroughly with water for several minutes. In case of contact lenses, remove them if it is easy. Continue rinsing. If eye irritation persists: Get medical advice. Take this MSDS.

*Ingestion:* Do not induce vomiting. Never give anything by mouth to an unconscious person. Wash the mouth of victim with plenty of water. If you feel unwell, contact a TOXICOLOGICAL INFORMATION CENTER or a doctor. Take this MSDS.

*Most important symptoms and effects, both acute and delayed:* Ingestion of high doses of the product may cause stomach discomfort with nausea, vomiting and diarrhea.

*Notes to physician:* Avoid contact with the product to help the victim. If necessary, the symptomatic treatment should include, above all, supportive measures such as correction of hydroelectrolytic, metabolic disorders, as well as respiratory assistance. In case of contact with skin do not rub the affected area.

#### **5- FIRE FIGHTING MEASURES**

*Extinguishing media:* The product is not considered a fire hazard.

Special hazards arising from the substance or mixture: Oxides of carbon, Oxides of Nitrogen (NO<sub>x</sub>).

Advice for firefighters: Wear self-contained breathing apparatus for firefighting, if necessary.

Other information: No data available.

#### **6- ACCIDENTAL RELEASE MEASURES**

##### **Personal precautions**

*For non-emergency staff:* Preventively isolate sources of ignition. Do not smoke. Do not touch damaged containers or spilled material without wearing suitable clothing. Avoid contact with eyes and skin. Use personal protective equipment as described in section 8.

##### **Environmental precautions**

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Do not allow product to reach sewage system.

*Methods and material for containment and cleaning up:* Place material in suitable containers and remove to safe place.

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

## 7- HANDLING AND STORAGE

### Appropriate technical measures for handling

*Precautions for safe handling:* Handle in an airy area. Avoid product exposition. Use personal protective equipment as described in Section 8.

*Hygiene measures:* Wash hands and face carefully after handling and before eating, drinking, smoking or going to the bathroom. Contaminated clothing should be changed and washed prior to reuse. Remove contaminated clothing and protective equipment before going to food areas.

### Safe storage conditions, including any incompatibility

Store at 2 to 8°C, protected from light and heat. Transport at room temperature (15 – 30°C) for up to 3 days. After opened, the whole content must be used in the same day.

*Prevention of fire and explosion:* The product is not expected to present a fire or explosion hazard.

*Specific end use:* No data available.

*Suitable conditions:* Store in a cool and airy place. Keep the product in its original packaging, always closed and out of reach of children and pets.

## 8- EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Personal protection measures

#### Control Parameters

*Occupational exposure limits:* We are not aware of any national exposure limits.

#### Exposure Control

*Appropriate technical controls:* General practice of industrial hygiene.

#### Personal protection

*Eye/face protection:* Glasses with side shields.

*Skin and body protection:* Appropriate protective gloves, safety boots, and safety clothing to protect the entire body.

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*Respiratory protection:* It is recommended the use of a respiratory protection mask.

## 9- PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, shape and color): Liquid, yellowish.

Odour and odour threshold: No data available.

pH: 7.20 -7.40.

Osmolality (mOsm/kg): 280 -290.

Melting point/freezing point: No data available.

Initial boiling point and boiling range: No data available.

Flash point: No data available.

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Upper/lower flammability or explosive limits: No data available.

Vapour pressure: No data available.

Vapour density: No data available.

Relative density: No data available.

Water solubility: No data available.

Partition coefficient: n-octanol/water: No data available.

Auto-ignition temperature: No data available.

Decomposition temperature: No data available.

Viscosity: No data available.

Other information: No data available.

## 10- STABILITY AND REACTIVITY

*Reactivity:* No data available.

*Chemical Stability:* Product stable under recommended conditions of storage.

*Possibility of hazardous reactions:* No data available.

*Conditions to Avoid:* No data available.

*Incompatible Materials:* Strong oxidizing agents.

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*Hazardous decomposition products:* Hazardous decomposition products formed under fire conditions - Carbon Oxides, Nitrogen Oxides (NOx), Hydrogen Bromide Gas, Sodium Oxides.

*Other dangerous decomposition products:* No data available.

## 11- TOXICOLOGICAL INFORMATION

### Acute Toxicity

DL<sub>50</sub> Oral: No data available.

DL<sub>50</sub> Inalation: No data available.

DL<sub>50</sub> Dermal: No data available.

### Further Information on Acute Toxicity

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

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a human carcinogen, likely, possible or confirmed by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as carcinogenic or potentially carcinogenic by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as carcinogenic by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as carcinogenic or potentially carcinogenic by OSHA.

### Reproductive Toxicity and Lactation

No data available.

### Teratogenicity

No data available.

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**Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System).**

No data available.

**Systemic Toxicity to Specific Target Organs - Repeated Exposure (Globally Harmonized System).**

No data available.

**Risk of Aspiration**

No data available.

**Possible Damage to Health**

*Inhalation:* May be harmful if inhaled. May cause respiratory tract irritation.

*Ingestion:* May be harmful if swallowed.

*Skin:* May be harmful if absorbed through skin. May cause skin irritation.

*Eyes:* May cause eye irritation.

**Signs and Symptoms of Exposure**

As far as we know the chemical, physical and toxicological properties have not been thoroughly investigated.

**Synergistic Effects**

No data available.

Additional Information RTECS: GC4762250.

**12- ECOLOGICAL INFORMATION****Environmental effects, behavior and impacts of the product**

Avoid soil contamination.

*Ecotoxicity:* No data available.

*Persistence and degradability:* No data available.

*Biocumulative potential:* No data available.

*Mobility in soil:* No data available.

*Results of PBT and vPvB assessment:* No data available.

*Other side effects:* No data available.

**13- DISPOSAL CONSIDERATIONS**

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**Waste treatment methods**

*Product:* Propose the delivery of surplus and non-recyclable solutions to an appropriate waste treatment company.

*Contaminated Packaging:* Dispose of as unused product.

**Recommended treatment and disposal methods applied to the product**

*Remainders of products:* Keep product residues in their original containers and properly closed. Disposal should be in accordance with the regulations for the product.

*Used packaging:* Do not reuse, puncture or otherwise throw fire in the empty containers. These may contain product residues and should be kept closed and shipped for appropriate disposal as set forth for the product.

*Further information:* Dispose according to local regulations.

**14- TRANSPORT INFORMATION**

**Terrestrial:** Resolution No. 420 of February 12th, 2004 of the National Land Transport Agency (ANTT), approves the Supplementary Instructions to the Regulations of the Land Transport of Dangerous Goods and their modifications.

**Waterway:** DPC - Directory of Ports and Coasts (Transportation in Brazilian waters); Maritime Authority Standards (NORMAM) - NORMAM 01 / DPC: Ships used in navigation in the open sea; NORMAM 02/DPC: Vessels used in inland navigation; IMO - "International Maritime Organization"; International Maritime Dangerous Goods Code (IMDG Code).

**Aerial:** ANAC - National Civil Aviation Agency - Resolution n° 129 of December 8th, 2009; RBAC n° 175 - (Brazilian Civil Aviation Regulation) - Transport of Dangerous Goods in Civil Aircraft); IS n° 175-001 - Supplementary Instruction; ICAO - "International Civil Aviation Organization" - Doc 9284-NA / 905; IATA - "International Air Transport Association"; Dangerous Goods Regulation (DGR).

**UN number:** Not classified as dangerous for transport in the different manners.

**15- REGULATORY INFORMATION**

Specific regulations for the chemical: Federal Decree No. 2.657, of July 3rd, 1998. Standard ABNT-NBR 14725: 2012. Law No. 12,305, of August 2nd, 2010 (National Solid Waste Policy). Decree n° 7404, of December 23th, 2010. Ordinance n° 229, of May 24th, 2011 - Alters Regulatory Norm n° 26.

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**16- OTHER INFORMATION****Important information, but not specifically described to the previous sections.**

This MSDS has been prepared on the basis of current knowledge on the proper handling of the product and under normal conditions of use, according to the application specified on the package. All information contained herein and the results of product reviews are the responsibility of the manufacturer.