

**Bovine Sera**



Health	0
Fire	0
Reactivity	0
Personal Protection	A

**Section 1: Product and Company Identification**

**Product Name:** Calf Serum  
**Recommended Use:** In Vitro Methods  
**Product Origin:** USDA Approved Origin Countries

**Company:**  
 Rocky Mountain Biologicals  
 6015 Greg's Way  
 Missoula, MT 59808

**Restrictions of Use:** Intended for further manufacturing applications or laboratory use only. Not intended for direct parenteral administration or where prohibited by law

**Telephone:**  
 406-541-7624  
**Emergency Telephone:**  
 406-541-7624

**Catalog Numbers:** CSF-BBT, CSF-BBZ, CSF-BFP, CSF-BGF, CSF-BHF, CSF-BHT, CSF-BIF, CSF-BTG, CSF-BZF

**Section 2: Hazard Identification**

**Emergency Overview:** All serum products should be treated as potentially infectious and handled as if capable of transmitting infectious agents. May cause eye and skin irritation. Handle in accordance with good industrial hygiene and safety practice. Low hazard for usual industrial or commercial handling.

**Appearance:** Yellow-Orange-Amber color  
**Physical State:** Liquid  
**Odor:** Characteristic  
**Target Organs:** None known  
**Potential Health Effects:** Acute effects: Principle routes of exposure  
 Eyes – may cause irritation  
 Skin – may cause irritation  
 Inhalation – low hazard for usual industrial or commercial handling  
 Ingestion – low hazard for usual industrial or commercial handling  
 Chronic effects: None known; see Section 11 for additional toxicological information  
 Aggravated medical conditions: No information available

**Classification of the substance or mixture:** Not a hazardous substance or mixture

**GHS Label Elements, including precautionary statements:** Not a hazardous substance or mixture

**Hazards not otherwise classified (HNOC) or not covered by GHS:** None

**Section 3: Composition/ Information on Ingredients**

The product contains no substances which at their given concentration, are considered to be hazardous to health.

**Section 4: First Aid Measures**

**General Information:** No special measures required  
**Eye Contact:** Flush eyes with water as a precaution  
**Skin Contact:** Wash off with soap and water  
**Inhalation:** Move person to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration  
**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water  
 When in doubt, or if symptoms are observed, seek medical advice

<p><b>Section 5: Fire Fighting Measures</b></p> <p><b>Flammability of the Product:</b> No data available  <b>Auto-Ignition Temperature:</b> No data available  <b>Flash Points:</b> No data available  <b>Flammable Limits:</b> No data available  <b>Products of Combustion:</b> No data available  <b>Fire Hazards in Presence of Various Substances:</b> No data available  <b>Explosion Hazards in Presence of Various Substances:</b> No data available  <b>Special Remarks on Fire Hazards:</b> No data available  <b>Special Remarks on Explosion Hazards:</b> No data available  <b>Fire Fighting Media and Instructions:</b> Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. May include, CO<sub>2</sub>, extinguishing powder or water spray or foam.  <b>Advice for firefighters:</b> Wear self-contained breathing apparatus for firefighting, if necessary</p>
<p><b>Section 6: Accidental Release Measures</b></p> <p><b>Personal Precautions:</b> Use personal protective equipment; ensure adequate ventilation; avoid contact with skin, eyes, and clothing.</p> <p><b>Environmental Precautions:</b> Should not be released into the environment.</p> <p><b>Methods for Containment &amp; Clean Up:</b> Soak up with inert absorbent material; after clean-up, disinfect affected area with bleach and water at a ratio of 1:20; dispose of clean up material in marked biohazard container.</p> <p><b>Small Spill Cleanup:</b> Mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.</p> <p><b>Large Spill Cleanup:</b> Absorb with an inert dry material and place the spilled material in an appropriate waste disposal container.</p>
<p><b>Section 7: Handling and Storage</b></p> <p><b>Handling:</b> Wear personal protective equipment; handle as potentially infectious; avoid contact with skin, eyes, and clothing; handle in accordance with good industrial hygiene and safety practice. Product should be handled aseptically and stored in sterile conditions to avoid bacterial contamination.</p> <p><b>Storage:</b> Keep containers tightly closed in a dry, cool, and well-ventilated place. Maintain at -10° to -20°C.</p>
<p><b>Section 8: Exposure Controls/ Personal Protection</b></p> <p><b>Exposure Limit Values:</b> Contains no substances with occupational exposure limit values.</p> <p><b>Exposure Controls:</b>          Use good laboratory techniques when handling this product. Use appropriate chemical hygiene and universal precautions.</p> <p><b>Personal Protective Equipment (PPE):</b> PPE requirements are dependent on the user institutions risk assessment and are specific to the risk assessment for each laboratory where the material may be used.</p> <p>Eye/Face Protection: Wear appropriate eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.          Skin &amp; Body Protection: Wear appropriate protective gloves and clothing to prevent skin exposure.          Respiratory Protection: Follow OSHA respirator regulations found in 29 CFR 1910.34 or European Standard EN149; use an NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.</p> <p><b>Engineering Controls:</b> Prevent product from entering drains, where applicable</p>

<p><b>Section 9: Physical and Chemical Properties</b></p> <p><b>Physical State and Appearance:</b> Liquid, Amber</p> <p><b>Odor:</b> No data available</p> <p><b>Odor Threshold:</b> No data available</p> <p><b>Taste:</b> No data available</p> <p><b>Boiling Point:</b> No data available</p> <p><b>Melting Point:</b> No data available</p> <p><b>Critical Temperature:</b> No data available</p> <p><b>Flash point:</b> No data available</p> <p><b>Vapor Pressure:</b> No data available</p> <p><b>Vapor Density:</b> No data available</p> <p><b>Volatility:</b> No data available</p> <p><b>Dispersion Properties:</b> No data available</p> <p><b>Solubility:</b> Soluble</p> <p><b>Viscosity :</b> No data available</p>
<p><b>Section 10: Stability and Reactivity</b></p> <p><b>Stability:</b> Stable under normal conditions</p> <p><b>Instability Temperature:</b> No data available</p> <p><b>Conditions of Instability:</b> No data available</p> <p><b>Incompatibility with Various Substances:</b> No data available</p> <p><b>Corrosivity:</b> No data available</p> <p><b>Special Remarks on Reactivity:</b> No dangerous reaction known under conditions of normal use.</p> <p><b>Special Remarks on Corrosivity:</b> Not available</p> <p><b>Polymerization:</b> Hazardous polymerization does not occur</p>
<p><b>Section 11: Toxicological Information</b></p> <p><b>Acute Toxicity:</b> Not Hazardous</p> <p><b>Routes of Entry</b></p> <ul style="list-style-type: none"> <li>Eyes – No data available</li> <li>Skin – No data available</li> <li>Inhalation – No data available</li> <li>Ingestion – No data available</li> <li>Carcinogenic effects – No data available</li> <li>Mutagenic effects – No data available</li> <li>Reproductive toxicity – No data available</li> <li>Sensitization – No data available</li> </ul> <p><b>Chronic Effects on Humans:</b> Not available</p>
<p><b>Section 12: Ecological Information</b></p> <p><b>Ecotoxicity :</b> No data available</p> <p><b>Mobility:</b> No data available</p> <p><b>Persistence and degradability:</b> No data available</p> <p><b>Biodegradation:</b> Inherently biodegradable</p> <p><b>Bioaccumulative Potential:</b> No data available</p> <p><b>Overall Evaluation:</b> On the basis of existing data about the elimination/ degradation and bioaccumulation, potential longer term damage to the environment is unlikely.</p>
<p><b>Section 13: Disposal Considerations</b></p> <p>Waste must be disposed of in accordance with federal, state, and local environmental control regulations.</p>

**Section 14: Transportation Information**

Bovine Serum is considered non-hazardous. Bovine Serum may be transported in the frozen state on dry ice. For air shipments, dry ice is considered non-hazardous. IATA sections 904, 954 and special provisions A151 and A805 govern the use and packaging of dry ice used as a refrigerant during transportation, parts of which are quoted below:

“Carbon dioxide, solid (dry ice), when offered for transport by air, must be in packaging designed and constructed to permit the release of carbon dioxide gas and to prevent build-up of pressure that could rupture the packaging. The net weight of the Carbon dioxide, solid (dry ice) must be marked on the outside of the package. Arrangements between shipper and operators must be made for each shipment, to ensure ventilation safety procedures are followed... When dry ice is used as a refrigerant for other than dangerous goods loaded in a unit load device or other type of pallet, the quantity limits per package shown in columns J and L in Section 4.2 for dry ice do not apply. In such case, the unit load device or other type of pallet must be identified to the operator and must allow the venting of the carbon dioxide gas to prevent a dangerous build up of pressure. Dry ice may be packed directly into an overpack without an intervening packaging.”

- Land Transport (ADR/RID):** Not a dangerous good
- Inland Water Ways Transport (AND):** Not a dangerous good
- Sea Transport (IMDG):** Not a dangerous good
- Air Transport (ICAO-TP/ IATA-DGR):** Not a dangerous good
- DOT (US) Classification:** Not a dangerous good

**Section 15: Regulatory Information**

**US Federal and State Regulations:**

- SARA 313** – This product is not regulated by SARA
- Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)** – This product does not contain HAPS
- California Proposition 65:** Does not contain any California Proposition 65 chemicals
- State Right-to-Know:** No components are subject to State Right to Know Acts

**Other Classifications:**

- WHMIS (Canada):** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.
- DSCL (EEC):** This product is not classified according to the EU regulations. Not applicable.

**Section 16: Other Information**

The regulations published by OSHA for Hazard Communication, 29 CFR 1910.1200, and 1907/2006/EC and are used as the basis for the development of the MSDS.  
For in-vitro diagnostic use. Not for human or animal therapeutic use.

The above information was acquired by careful search and the recommendations are based on application of professional judgment. The information is believed to be correct but may not be all inclusive and is only to be used as a guide. RMBIO shall not be held liable for any damages or losses resulting from the handling or contact with the products described in this document.

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