



Health	0
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Personal Protection	A

Bovine Protein (Powder)

Section 1: Product and Company Identification

Product Name: Bovine Thrombin

Recommended Use: In Vitro Methods

Product Origin: USDA Approved Countries

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

Company:

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

Telephone:

406-541-7624

Emergency Telephone:

406-541-7624

Catalog Numbers: BTB-ABZ, BTB-BBZ, BTB-BHP

Section 2: Hazard Identification

Emergency Overview: All protein 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: Tan

Physical State: Powder

Odor: Characteristic

Target Organs: None known

Potential: Acute effects: Principle routes of exposure

Health Effects: 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. No hazardous ingredients according to the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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

Section 5: Fire Fighting Measures

Flammability of the Product: No data available
Auto-Ignition Temperature: No data available
Flash Points: No data available
Flammable Limits: No data available
Products of Combustion: No data available
Fire Hazards in Presence of Various Substances: No data available
Explosion Hazards in Presence of Various Substances: No data available
Special Remarks on Fire Hazards: No data available
Special Remarks on Explosion Hazards: No data available
Fire Fighting Media and Instructions: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. May include, CO₂, extinguishing powder or water spray or foam.
Advice for firefighters: Wear self-contained breathing apparatus for firefighting, if necessary

Section 6: Accidental Release Measures

Personal Precautions: Use personal protective equipment; ensure adequate ventilation; avoid contact with skin, eyes, and clothing.
Environmental Precautions: Should not be released into the environment.
Methods for Containment & Clean Up: 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.
Small Spill Cleanup: Mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill Cleanup: Absorb with an inert dry material and place the spilled material in an appropriate waste disposal container.

Section 7: Handling and Storage

Handling: 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.
Storage: Keep containers tightly closed in a dry, cool, and well-ventilated place. Do not store above -20°C.

Section 8: Exposure Controls/ Personal Protection

Exposure Limit Values: Contains no substances with occupational exposure limit values.
Exposure Controls:
 Use good laboratory techniques when handling this product. Use appropriate chemical hygiene and universal precautions.
Personal Protective Equipment (PPE): 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.

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 & 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.

Engineering Controls: Prevent product from entering drains, where applicable

Section 9: Physical and Chemical Properties

Physical State and Appearance: Powder, Tan

Odor: No data available

Odor Threshold: No data available

Taste: No data available

Boiling Point: No data available

Melting Point: No data available

Critical Temperature: No data available

Flash point: No data available

Vapor Pressure: No data available

Vapor Density: No data available

Volatility: No data available

Dispersion Properties: No data available

Solubility: Soluble

Viscosity : No data available

Section 10: Stability and Reactivity

Stability: Stable under normal conditions

Instability Temperature: No data available

Conditions of Instability: No data available

Incompatibility with Various Substances: No data available

Corrosivity: No data available

Special Remarks on Reactivity: No dangerous reaction known under conditions of normal use.

Special Remarks on Corrosivity: Not available

Polymerization: Hazardous polymerization does not occur

Section 11: Toxicological Information

Acute Toxicity: Not Hazardous

Routes of Entry

Eyes – No data available

Skin – No data available

Inhalation – No data available

Ingestion – No data available

Carcinogenic effects – No data available

Mutagenic effects – No data available

Reproductive toxicity – No data available

Sensitization – No data available

Chronic Effects on Humans: Not available

Section 12: Ecological Information

Ecotoxicity : No data available
Mobility: No data available
Persistence and degradability: No data available
Biodegradation: Inherently biodegradable
Bioaccumulative Potential: No data available
Overall Evaluation: On the basis of existing data about the elimination/ degradation and bioaccumulation, potential longer term damage to the environment is unlikely.

Section 13: Disposal Considerations

Waste must be disposed of in accordance with federal, state, and local environmental control regulations.

Section 14: Transportation Information

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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