

## MATERIAL SAFETY DATA

American Biosystems, Inc  
P.O. Box 21221  
Roanoke, VA 24018  
PHONE: (888) 344-6469  
FAX: (540)345-1247

Date: Julu 25,2000  
Review Date:

NA = Not Applicable

Page 1 of2

### SECTION I - IDENTIFICATION

---

**Trade Name: Bromelain Enzyme Powder**

Chemical Family: Enzyme Source: Pineapple Stem

Chemical Name: Bromelain

DOT HAZARD CLASS: NA DOT LABEL(S): NA

CAS No 9001-00-7 I.U.B. 3.4.22.4

DOT PROPER SHIPPING NAME: Chemicals Not Otherwise Indexed (NOI), Non Hazardous

---

### SECTION II-PHYSICAL DATA

---

STATE: Powder APPEARANCE.-tan powder

BOILING PT: NA MELTING POINT; Not Available VAPOR DENSITY: NA

EVAPORATION RATE (BUTYL ACETATE =1): As water SPECIFIC GRAVITY: NA

STORAGE CONDITIONS Store tightly closed in cool, dry place POUR PT:NA

SOLUBILITY IN WATER - NA (Aqueous solution) Readily soluble %VOLATILES NA

---

### SECTION III- Hazardous Components

---

Material: This product does not meet the definition of hazardous material given in 29 CFR part 1910.1200 (OSHA), information on this for is furnished as a customer service.

Inhalation: May cause sensitization by inhalation in hypersensitive individuals. Avoid dust generation. If inhaled remove from contaminated area to fresh area. Report situation. Seek medical attention if allergic response is exhibited.

Eye Contact: Product is not known to cause eye irritation. However, it is recommended that direct contact with eyes be avoided. In case of contact with eyes, flush eyes with low pressure water for at least 15 minutes. If irritation develops, seek medical attention.

Skin Contact: Product is not irritating to skin. It is recommended that direct contact with eyes be avoided. In case of contact with skin, wash skin with soap and water. Remove contaminated clothing and wash.

Swallowing: Ingestion of material is not known to result in significant adverse health affects. If swallowed, rinse mouth and throat thoroughly with tap water, drink water.

---

### SECTION IV –Fire fighting measures

---

Flash Point/Ignition Temperature: HMIS Rating: Health=1  
Flammibility=1  
Reactivity=0

Explosion Characteristics: N/A

Hazardous decomposition products:None

Suitable fire extinguishing media: Water, foam, halones

---

#### SECTION V – Accidental Release Measures

---

If a spill occurs: Spilled product should be removed immediately to avoid formation of dust. Vacuum or moisten with water and collect into a sealable container for disposal. Flush spill area with plenty of water (low pressure) into approved sewer. Avoid formation of aerosols and dust. Ensure sufficient ventilation. Wash contaminated clothing.

First Aid: In case of contact with skin or eyes, rinse thoroughly with water. In case of inhalation, remove from exposure and provide fresh air. For any exposure, if irritation or allergic symptoms occur, see a doctor.

---

#### SECTION VI – Personal Protection/Handling

---

Technical Protective Measures: Avoid formation of dust. Avoid splashing and high pressure washing. Ensure good ventilation of the room when handling this product. Store container in a cool dry place.

#### Recommended Personal Protective Equipment

Respiratory Protection: None required under usual condition of use. If exposure potential exist, refer to NIOSH Criteria Guidelines to determine appropriate unit.

Hand Protection: Impermeable gloves recommended

Eye Protection: Protective glasses or Eye shield

Industrial Hygiene: Maintain good conditions of Industrial Hygiene

Protection against fire & explosions: Under normal conditions, no special requirements. If extremely high levels generated in ambient air, material can support combustion.

---

#### SECTION VII – Physical Properties

---

Solubility in Water: Readily soluble      Alternative solvent: N/A      pH(1% sol.): 3.8-8.0

---

#### SECTION VIII – Toxicological Information

---

Inhalation of dust may cause respiratory allergy in susceptible individuals. Oral Rats LD 50 > 2g/Kg-classifies product as “non-toxic”

Carcinogenicity: NTP? No

IARC Monographs? No

OSHA Regulated? No

---

#### SECTION IX – Information on ecological effects

---

Product is readily Biodegradable

---

#### SECTION X- Disposal Considerations

---

No special disposal method is required, except that in accordance with current local authority regulations.

---

#### SECTION XI- Transportation Classification

---

Road/Rail: Not Classified

Sea: Not Classified

Air: Not Classified

---

#### SECTION XII-Regulatory Information

---

The active ingredient and all components of the enzyme preparation are listed on the TSCA Inventory.

---

#### SECTION XIII- Further information

---

The information contained in this Material Safety Data Sheet, as of the issue date, is believed to be true and correct. Accuracy or completeness of this information and any recommendations or suggestions are made without warranty or guarantee. Since the conditions of use are beyond the control of the company, it is the responsibility of the user to determine the conditions of safe use of this product. This information does not represent analytical specifications.