



Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product Name: Bacillus licheniformis Concentrate
Other Identifier:
Recommended Use: Agricultural and Feed additive
Form: Powder

Supplier Identification: American Biosystems, Inc.
345 Luck Avenue
Roanoke, VA 24016
(p) 540-344-6469, 888-344-6469
(f) 540-301-6451

Website: www.americanbiosystems.com

Email: ambio@usa.net
Emergency Number: 888-344-6469, 9 am to 5 pm EST

Section 2 – Hazards Identification

Hazard Class:
Signal Word:
Hazard Statement:
Precautionary Statement:

Do not breathe dust. Do not get on skin or clothing. Avoid contact with skin, eyes and clothing. Use with adequate ventilation. Keep container closed and sealed until ready for use. Wash thoroughly after handling. Do not ingest.

Hazard Symbol:

Section 3 - Composition/Information on Ingredients

CAS#	Chemical Name	EINECS/ELINCS	IUB	% by weight
9014-01-1	Protease (subtilisin)	232-752-2	3.4.21.62	< 0.1%

Other components: remaining components of this product are proprietary, non hazardous and/or are present at concentrations below reportable limits.

Section 4 – First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids; get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of water.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.



Section 5 – Fire Fighting Measures

Fire Fighting Extinguishing media: Water, foam, chemical and carbon dioxide

Fire Fighting Chemical Hazards: May cause allergic respiratory reaction

Fire Fighting Protective Actions: Not available

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Contact emergency personnel and keep unprotected personnel from entering area. Provide sufficient ventilation and remove contaminated clothing. Do not walk through spilled material. Avoid breathing dust.

Environmental precautions: Removal by mechanical means (ie vacuuming with HEPA filters) is preferred. Solid can be placed in sealed containers for disposal. Dilute remainder with plenty of water avoiding the formation of aerosols and flush to an approved drain according to local guidelines.

Methods and material for containment and cleaning up: Remove spilled material immediately to reduce the formation of dust using mechanical means (ie vacuuming with HEPA filters) is preferred. Solid can be placed in sealed containers for disposal. Dilute remainder with plenty of water avoiding the formation of aerosols and flush to an approved drain according to local guidelines.

Section 7 - Handling and Storage

Precautions for safe handling: Segregate from acids, peroxides, and combustible organic materials or easily oxidizable materials. Keep from freezing. Protect against physical damage. Keep away from heat and flame.

Conditions for safe storage including any incompatibilities: Keep away from heat and flame. Store in a cool dry area in closed original containers.

Hygiene: not specified

Section 8 - Exposure Controls/Personal Protection

Occupational exposure limits: None established

Biological limit values: None established

Appropriate engineering controls: Dust control and adequate ventilation

Eye/face protective equipment: Protective glasses

Skin protection: Protective gloves

Respiratory protection: Dust mask

Section 9 - Physical and Chemical Properties

Physical State: Solid



Appearance:	Tan free flowing powder
Odor:	Fermentation odor
Odor threshold:	Not established
pH:	Not established.
Freezing/Melting Point:	Not established.
Initial boiling point and boiling range:	Not available.
Flash Point:	Not available.
Evaporation Rate:	Not available.
Flammability:	Not available
Upper/lower flammability or exposure limits:	Not available
Vapor Pressure:	Not available.
Vapor Density:	Not available
Relative Density:	Not established
Solubility:	Dispersible in water
Partial coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available
Explosive properties:	Not available
Oxidizing properties:	Not available

Other Information: No additional information.

Section 10 - Stability and Reactivity

Chemical Stability:	Stable.
Hazardous Reactions:	None identified
Conditions to Avoid:	None known
Incompatible materials:	None known
Hazardous decomposition products:	None

Section 11 - Toxicological Information

Acute toxicity: Ingestion of this material is not known to result in adverse effects. No specific data available
Skin Corrosion/irritation: this material may be a mild skin irritant.
Serious eye damage/irritation: overexposure to the eye is characterized by irritation
Respiratory or skin sensitization: overexposure by inhalation may cause sensitization and allergic response in hypersensitive individuals; not a skin sensitizer
Germ cell mutagenicity: Not available.
Carcinogenicity: Not listed by IARC, OSHA, or NTP
Reproductive toxicity: No data available
Aspiration hazard: see respiratory sensitization

Section 12 - Ecological Information

Ecotoxicity: No specific data available
Persistence and degradability: No specific data; components are considered to be biodegradable.
Bioaccumulation potential: No specific data available; components considered to be biodegradable will not bioaccumulate.



Mobility in soil: No data available

Results of PBT and vPvB assessment: No specific data available; the substance does not meet the criteria for characterization as either PBT or vPvB

Other adverse effects: None known

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Section 14 - Transport Information

UN Number: None assigned; the substance is not classified as hazardous for transport.

UN Proper Shipping Name: Not applicable.

Transport Hazard classes: Not applicable.

Packing Group: Not applicable.

Transport Environmental Hazards: The substance is not classified as hazardous for transport.

Transport Special Precautions for User: The substance is not classified as hazardous for transport.

Transport in Bulk (MARPOL): The substance is not classified as hazardous for transport.

Section 15 - Regulatory Information

HMIS Hazards Ratings: Health 1
Flammability 0
Reactivity 0
Personal Protection: E

Section 16 - Additional Information

SDS Creation Date: 03/25/2015

SDS Review Date: 07/15/2015

The information contained in this 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.