



## Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

Product Name: COMBOzyme  
Other Identifier: COMBO® Enzyme Blend  
Recommended Use: Animal 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](http://www.americanbiosystems.com)

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

### Section 2 – Hazards Identification

Hazard Class: Category 1: Respiratory Sensitizer

Signal Word: Danger

Hazard Statement: H334 May cause allergy or asthma or breathing difficulties if inhaled

Precautionary Statement: **Prevention**

P261 – Avoid breathing dust/fume/gas/mist/vapors/spray

P285- in case of inadequate ventilation, wear respiratory protection

Precautionary Statement: **Response**

P304 + P341- IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing

P342+ P311- If experiencing respiratory symptoms, call a Poison Control Center or physician.



Hazard Symbol:

### Section 3 - Composition/Information on Ingredients

CAS#	Chemical Name	EINECS/ELINCS	IUB	% by weight
9000-90-2	Alpha amylase	232-565-6	3.2.1.1	< 0.1%
9012-54-8	Cellulase	232-734-4	3.2.1.4	< 0.5%
9025-57-4	Xylanase	232-800-2	3.2.1.8	< 0.1%
37288-54-3	Beta Mannanase	253-44-65	3.2.1.78	< 0.1%
9014-01-1	Protease (subtilisin)	232-752-2	3.4.21.62	< 1.0%
9001-82-1	Lipase	232.619.9	3.1.1.3	< 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**

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

**Other Information:** No additional information.

## **Section 10 - Stability and Reactivity**

<b>Chemical Stability:</b>	Stable.
<b>Hazardous Reactions:</b>	None identified
<b>Conditions to Avoid:</b>	None known
<b>Incompatible materials:</b>	None known
<b>Hazardous decomposition products:</b>	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:** 05/23/2016

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