Completion Date: 06/05/2014 Revision Date: 06/05/2014

Version Number:



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

BIO-MOS® MILK PAK

1.2 Other means of identification Not applicable

1.3 Recommended use of the chemical and restrictions on use

BIO-MOS® MILK PAK is a supplement for calves fed milk replacer.

1.4 Details of the supplier of the safety data sheet

Alltech Inc.

3031 Catnip Hill Road Nicholasville, KY 40356

Phone: (01) (859) 885-9613 [U.S.A.] Fax: (01) (859) 887-6736 [U.S.A.]

1.5 Emergency telephone number

> Chem Trec: 1-800-424-9300 24 hours

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Not applicable

> H Phrases: None listed P Phrases: None listed

2.2 **GHS** Label elements Not applicable

2.3 Other hazards

> Inhalation: Exposure to dust may cause irritation to the nose, throat or respiratory

system. If application creates dust, use appropriate approved respiratory

protection. Persons with allergies should avoid exposure.

Skin Contact: Skin contact may cause a slight irritation. Symptoms may include redness,

itching and pain. Persons with allergies should avoid exposure.

Eye Contact: Product may cause slight irritation. Symptoms include redness, itching and

Ingestion: Not found to be toxic by oral exposure. Ingestion of this product may cause

slight irritation.

Chronic Health

Effects: Not identified.

BIO-MOS® MILK PAK

Completion Date: 06/05/2014 Revision Date: 06/05/2014

Version Number:

SECTION 3: Composition/information of ingredients

3.1 Substances Not applicable

3.2 Mixtures

CAS#:	Component	Weight %
NA	Hydrolyzed yeast	Not disclosed
64044-51-5	Lactose	Not disclosed
NA	Natural and artificial flavors	Not disclosed

NA: Not applicable

SECTION 4: First aid measures

4.1 Description of first aid measures

Flush eyes immediately with copious amounts of clean water for 15

minutes. If irritation or redness persists, seek medical attention if allergic

response exhibited.

Skin: Remove affected clothing immediately. Flush affected area(s) with copious

> amounts of soap and water. If skin surface is damaged, apply a clean dressing. Wash contaminated clothing before reuse. If irritation or redness

develops, seek medical attention immediately.

Inhalation: Remove victim from source and allow to rest in well ventilated area. If

breathing is difficult, obtain medical attention immediately.

Do NOT induce vomiting unless directed to do so by medical personnel. Ingestion:

Never give anything by mouth to an unconscious person. Seek medical

attention.

4.2 Most important symptoms and effects, both acute and delayed Not identified.

4.3 Indication of any immediate medical attention and special treatment needed Not identified.

SECTION 5: Firefighting measures

5.1 Suitable extinguishing media

> Use media that is appropriate to treat surrounding fire. Consider alcohol-resistant foam, carbon dioxide, regular dry chemical, or water spray. Avoid heavy stream of water. Self contained breathing apparatus is required.

5.2 Special hazards arising from the substance or mixture

> Evolves carbon dioxide, carbon monoxide or hydrocarbon fumes upon combustion.

5.3 Special protective actions for fire-fighters

> Move container from fire area if it can be done without risk. Do not scatter spilled material with high pressure water streams. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products.

Fire fighters should wear self-contained breathing apparatus with full face piece operated in positive pressure mode and protective clothing to prevent contact with skin and eves.

Completion Date: 06/05/2014 Revision Date: 06/05/2014

Version Number:

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

> Ventilate the area. Wear appropriate protective equipment as specified in section 8. Avoid dust formation and avoid inhalation of dust. Use a respirator or a combination filter. Keep unnecessary personnel away.

6.2 Environmental precautions

> Place contaminated materials in disposal containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material. Do not dispose in canals, surface water, or ground water.

Methods and material for containment and cleaning up 6.3

> Sweep, shovel, or vacuum up the material. Avoid any excess dust formation. Use caution as product may be slippery when wet. Keep product out of sewage and drainage systems and all bodies of water. Clean spills immediately. Ventilate the contaminated area. Thoroughly wash the area with water after a spill.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

> Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly with soap and water after handling. The use of respiratory protection is advised when dust concentrations exceed any established exposure limits (see section 8).

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Shelf life under these conditions is 18 months.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters Not available

Component (CAS#):

8.2 Appropriate engineering controls:

> Use process enclosure, general dilution ventilation, or local exhaust systems, where necessary to maintain airborne dust concentrations below the applicable regulations. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits.

8.3 Individual protection measures

> Eye/face: Protective goggles or face shields.

Skin: Wear impervious gloves and general purpose overalls with elasticized

cuffs and leg bottoms. Persons with allergies should avoid exposure.

Protection is not normally required. Wear a dust mask or other appropriate Respiratory:

> approved respiratory protection when effective engineering controls are not feasible or during operations that generate airborne dust concentrations exceeding the relevant standards. A respiratory protection program that meets applicable requirements whenever workplace conditions warrant a

respirator's use. Persons with allergies should avoid exposure.

Completion Date: 06/05/2014
Revision Date: 06/05/2014

Version Number: 1

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Physical appearance Light brown powder (b) Odour Not available (c) Odour Threshold Not available (d) Bulk Density Not available Not available (e) pH (f) Melting point/freezing point Not available (g) Initial boiling point Not available (h) Flash point Not available (i) Evaporation rate Not available (j) Flammability Not available (k) Upper/lower flammability or explosive limits Not available (I) Vapour pressure Not available (m) Vapour density Not available (n) Relative density Not available (o) Solubility Not available (p) Partition coefficient: n-octanol/water Not available (q) Auto ignition temperature Not available (r) Decomposition temperature Not available (s) Viscosity Not available

9.2 Other information

To the best of our knowledge the chemical, physical, and toxicological properties of this product have not been thoroughly investigated.

SECTION 10: Stability and reactivity

10.1	Reactivity	Not available
10.2	Chemical stability	Product is stable under normal storage conditions (21 °C,
		1atm).
10.3	Possibility of hazardous reactions	Not available
10.4	Conditions to avoid	Avoid moisture, heat and sources of ignition.
10.5	Incompatible materials	Not available
10.6	Hazardous decomposition products	Not available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

	9	
(a)	Acute toxicity	Not identified
(b)	Skin corrosion/irritation	Not expected to be toxic. Exposure may cause slight
		irritation.
(c)	Serious eye damage/irritation	Not available
(d)	Respiratory or skin sensitization	Not available
(e)	Germ cell mutagenicity	Not available
(f)	Carcinogenicity	Not applicable
(g)	Reproductive toxicity	Not applicable
	STOT-single exposure	Not applicable
(i)	STOT-repeated exposure	Not applicable
(j)	Aspiration hazard	Not applicable

11.2 Information on the likely routes of exposure

Not applicable

BIO-MOS® MILK PAK

Completion Date: 06/05/2014 Revision Date: 06/05/2014

Version Number:

- 11.3 Symptoms related to the physical, chemical and toxicological characteristics Not applicable
- 11.4 Delayed and immediate effects and also chronic effects from short and long term exposure Not applicable
- 11.5 Other information

Other toxicological information: To the best of our knowledge the chemical, physical and toxicological properties of this product have not been thoroughly investigated.

SECTION 12: Ecological information

12.1	Toxicity	Not available
	Component (CAS#:) Test & Species:	

12.2	Persistence and degradability	Not available
12.3	Bioaccumulative potential	Not available
12.4	Mobility in soil	Not available
12.6	Other adverse effects	Not available

SECTION 13: Disposal considerations

Not identified 13.1 Waste treatment methods

> Disposal Instructions: Consult local, state and/or provincial environmental regulatory authorities for acceptable disposal procedures and locations.

SECTION 14: Transport information

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not applicable
14.3	Transport hazard class(es)	Not applicable
14.4	Packing group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precautions for user	Not applicable
14.7	Transport in bulk according to Anne	ex II of MARPOL73/78 and the IBC Code

SECTION 15: Regulatory information

Not applicable

15.1 Safety, health, and environmental regulation/legislation specific for the substance or mixture Not available

SECTION 16: Other information

Preparation Date: 06 May 2014 Issue Date: 06 May 2014

Previous Issue Date: None

BIO-MOS® MILK PAK

Completion Date: 06/05/2014 Revision Date: Version Number: 06/05/2014

The information herein has been compiled from sources believed to be reliable and is accurate to the best of our knowledge. However, Alltech, Inc. cannot give any guarantees regarding information from other sources, and expressly does not make any warranties, nor assumes any liability, for its use.