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**Section 1 - PRODUCT AND COMPANY IDENTIFICATION**

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**Material Name**

Birthright™ Bridge, Product Code: 9104

**Product Use**

A Complete Livestock Feed.

**Restrictions on Use**

Use Only as Directed on Label.

**Details of the supplier of the safety data sheet**

Ralco Nutrition, Inc.  
1600 Hahn Road  
Marshall, MN 56258  
Phone: 1-800-533-5306

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**Section 2 - HAZARDS IDENTIFICATION**

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**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

None needed according to classification criteria

**GHS Label Elements****Symbol(s)**

None needed according to classification criteria

**Signal Word**

None needed according to classification criteria

**Hazard Statement(s)**

None needed according to classification criteria.

**Precautionary Statement(s)****Prevention**

None needed according to classification criteria.

**Response**

None needed according to classification criteria.

**Storage**

None needed according to classification criteria.

**Disposal**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other Hazards**

May form combustible dust concentrations in air.



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**Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS**

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<b>CAS</b>	<b>Component Name</b>	<b>Percent</b>
n/a	Dried Whey	15-40
n/a	Corn	5-30
n/a	Oat Groats	5-30

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**Section 4 - FIRST AID MEASURES**

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**Inhalation**

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

**Skin**

Wash thoroughly after handling.

**Eyes**

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

**Ingestion**

Rinse mouth thoroughly with water.

**Most Important Symptoms/Effects****Acute**

None Known.

**Delayed**

None Known.

**Note to Physicians**

Treat symptomatically.

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**Section 5 - FIRE FIGHTING MEASURES**

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**Extinguishing Media****Suitable Extinguishing Media**

Water spray, regular dry chemical, carbon dioxide, fire-fighting foam.

**Unsuitable Extinguishing Media**

None Known.

**Hazardous Combustion Products**

May form combustible dust concentrations in air.

**Fire Fighting Measures**

Co-ordinate fire-fighting measures to the fire surroundings.

Knock down dust with water spray jet.

**Special Protective Equipment and Precautions for Firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

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**Section 6 - ACCIDENTAL RELEASE MEASURES**

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**Personal Precautions, Protective Equipment and Emergency Procedures**

Use Personal Protective equipment as required.

**Methods and Materials for Containment and Cleaning Up**

Collect in closed and suitable containers for disposal.

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Environmental Precautions**

None Known.

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**Section 7 - HANDLING AND STORAGE**

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**Precautions for Safe Handling**

Do not handle until all safety precautions have been read and understood.

Use Personal Protective equipment as required.

Wash thoroughly after handling.

**Conditions for Safe Storage, Including any Incompatibilities**

Store in a well-ventilated place.

Keep container tightly closed.

Store locked up.



### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Component Exposure Limits

Silica, amorphous, precipitated and gel	112926-00-8
OSHA (US):	20 mppcf TWA; ((80)/(% SiO2) mg/m3 TWA)
Mexico:	10 mg/m3 TWA VLE-PPT
Zinc oxide	1314-13-2
ACGIH:	2 mg/m3 TWA respirable particulate matter
	10 mg/m3 STEL respirable particulate matter
NIOSH:	5 mg/m3 TWA dust and fume
	10 mg/m3 STEL fume
	15 mg/m3 Ceiling dust
	500 mg/m3 IDLH
OSHA (US):	5 mg/m3 TWA fume; 15 mg/m3 TWA total dust; 5 mg/m3 TWA respirable fraction
Mexico:	5 mg/m3 TWA VLE-PPT fume; 10 mg/m3 TWA VLE-PPT dust
	10 mg/m3 STEL [PPT-CT] fume
Calcium carbonate	471-34-1
NIOSH:	10 mg/m3 TWA total dust; 5 mg/m3 TWA respirable dust
Diatomaceous earth	61790-53-2
OSHA (US):	((80)/(% SiO2) mg/m3 TWA); 20 mppcf TWA
Mexico:	10 mg/m3 TWA VLE-PPT inhalable fraction

#### EU - Occupational Exposure (98/24/EC) - Binding Biological Limit Values and Health Surveillance Measures

There are no biological limit values for any of this product's components.

#### ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

#### Engineering Controls

Sufficient to maintain atmospheric concentrations below applicable regulatory limits.

**Individual Protection Measures, such as Personal Protective Equipment**
**Eye/face protection**

Use suitable eye protection.

Wear face protection.

**Skin Protection**

Wear suitable protective clothing.

**Respiratory Protection**

In case of inadequate ventilation wear respiratory protection.

**Glove Recommendations**

Wear protective gloves.

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**Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**


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<b>Appearance</b>	Crumble.	<b>Physical State</b>	Solid.
<b>Odor</b>	Cereal.	<b>Color</b>	Tan.
<b>Odor Threshold</b>	Not available	<b>pH</b>	Not available
<b>Melting Point</b>	Not available	<b>Boiling Point</b>	Not available
<b>Freezing point</b>	Not available	<b>Evaporation Rate</b>	Not available
<b>Boiling Point Range</b>	Not available	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition</b>	Not available	<b>Flash Point</b>	Not available
<b>Lower Explosive Limit</b>	Not available	<b>Decomposition</b>	Not available
<b>Upper Explosive Limit</b>	Not available	<b>Vapor Pressure</b>	Not available
<b>Vapor Density (air=1)</b>	Not available	<b>Specific Gravity (water=1)</b>	Not available
<b>Water Solubility</b>	Not available	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	Not available	<b>Solubility (Other)</b>	Not available
<b>Density</b>	Not available	<b>Molecular Weight</b>	Not available

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**Section 10 - STABILITY AND REACTIVITY**

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**Reactivity**

No known hazardous reactions.

**Chemical Stability**

The product is stable under storage at normal ambient temperatures.

**Conditions to Avoid**

Avoid contact with incompatible materials.

**Incompatible Materials**

None Known.

**Hazardous decomposition products**

None Known.

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**Section 11 - TOXICOLOGICAL INFORMATION**

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**Acute and Chronic Toxicity****Component Analysis - LD50/LC50**

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Vitamin A acetate (127-47-9)

Oral LD50 Rat 4980 mg/kg

Sodium saccharin (128-44-9)

Oral LD50 Rat 14200 mg/kg

Zinc oxide (1314-13-2)

Oral LD50 Rat >5000 mg/kg

Copper chloride hydroxide (1332-40-7)

Oral LD50 Rat 833 mg/kg

Dermal LD50 Rat >5000 mg/kg

Calcium pantothenate (137-08-6)

Oral LD50 Rat >10 g/kg

Calcium carbonate (471-34-1)

Oral LD50 Rat 6450 mg/kg

Pyridoxine hydrochloride (58-56-0)

Oral LD50 Rat 4000 mg/kg

Niacin (59-67-6)

Oral LD50 Rat 7 g/kg

Dermal LD50 Rat >2000 mg/kg

L-Lysine HCl (657-27-2)

Oral LD50 Rat 10 g/kg

Vitamin D3 (67-97-0)

Oral LD50 Rat 42 mg/kg

L-Tryptophan (73-22-3)

Oral LD50 Rat >16 g/kg



Zinc sulfate, monohydrate (7446-19-7)

Oral LD50 Mouse 1891 mg/kg

Potassium chloride (7447-40-7)

Oral LD50 Rat 2600 mg/kg

Sodium chloride (7647-14-5)

Oral LD50 Rat 3 g/kg

Inhalation LC50 Rat >42 g/m3 1 h

Oils, origanum (8007-11-2)

Oral LD50 Rat 1850 mg/kg

White mineral oil (8042-47-5)

Oral LD50 Rat >5000 mg/kg

Riboflavin (83-88-5)

Oral LD50 Rat >10 g/kg

**Immediate Effects**

No information on significant adverse effects.

**Delayed Effects**

No information on significant adverse effects.

**Irritation/Corrosivity Data**

No data available.

**Respiratory Sensitization**

No data available.

**Dermal Sensitization**

No data available.

**Component Carcinogenicity**

Silica, amorphous, precipitated and gel	112926-00-8
IARC:	Monograph 68 [1997] (Group 3 (not classifiable))
Clinoptilolite	12173-10-3
IARC:	Monograph 68 [1997] (Group 3 (not classifiable))
Sodium saccharin	128-44-9
IARC:	Monograph 73 [1999] (downgraded from 2B to 3); Supplement 7 [1987]; Monograph 22 [1980] (Group 3 (not classifiable))
Diatomaceous earth	61790-53-2
IARC:	Monograph 68 [1997] (Group 3 (not classifiable))

**Germ Cell Mutagenicity**

No data available.

**Tumorigenic Data**

No data available.



**Reproductive Toxicity**

No data available.

**Specific Target Organ Toxicity - Single Exposure**

No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

No data available.

**Aspiration hazard**

No data available.

**Medical Conditions Aggravated by Exposure**

No data available.

### Section 12 - ECOLOGICAL INFORMATION

**Component Analysis - Aquatic Toxicity**

Sodium saccharin	128-44-9
Fish:	LC50 96 h Pimephales promelas 16400 - 20400 mg/L [static] (30 days old)
Niacin	59-67-6
Fish:	LC50 96 h Salmo trutta 520 mg/L
Algae:	EC50 72 h Desmodesmus subspicatus 89.93 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 77 mg/L IUCLID
Potassium chloride	7447-40-7
Fish:	LC50 96 h Lepomis macrochirus 1060 mg/L [static]; LC50 96 h Pimephales promelas 750 - 1020 mg/L [static]
Algae:	EC50 72 h Desmodesmus subspicatus 2500 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 825 mg/L IUCLID; EC50 48 h Daphnia magna 83 mg/L [Static] EPA
Sodium chloride	7647-14-5
Fish:	LC50 96 h Lepomis macrochirus 5560 - 6080 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 12946 mg/L [static]; LC50 96 h Pimephales promelas 6020 - 7070 mg/L [static]; LC50 96 h Pimephales promelas 7050 mg/L [semi-static]; LC50 96 h Pimephales promelas 6420 - 6700 mg/L [static]; LC50 96 h Oncorhynchus mykiss 4747 - 7824 mg/L [flow-through]
Invertebrate:	EC50 48 h Daphnia magna 1000 mg/L IUCLID; EC50 48 h Daphnia magna 340.7 - 469.2 mg/L [Static] EPA
White mineral oil	8042-47-5
Fish:	LC50 96 h Lepomis macrochirus >10000 mg/L



**Section 13 - DISPOSAL CONSIDERATIONS**
**Disposal Methods**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Section 14 - TRANSPORT INFORMATION**
**US DOT Information:**

No Classification assigned.

**TDG Information:**

No Classification assigned.

**Section 15 - REGULATORY INFORMATION**
**U.S. Federal Regulations**

None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

**U.S. State Regulations**

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Silica, amorphous, precipitated and gel	112926-00-8	No	Yes	Yes	Yes	Yes
Sodium saccharin	128-44-9	No	Yes	No	No	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes	Yes	Yes
Diatomaceous earth	61790-53-2	No	No	Yes	Yes	No

**Not listed under California Proposition 65**
**Canadian WHMIS Ingredient Disclosure List (IDL)**

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL.

Zinc oxide	1314-13-2	1 %
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**Component Analysis - Inventory**

Zinc oxide (1314-13-2)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECL/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

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**Section 16 - OTHER INFORMATION**

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**Summary of Changes**

New SDS: 11/01/2016

**Key / Legend**

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; JP - Japan; Kow - Octanol/water partition coefficient; KECI - Korea Existing Chemicals Inventory; KECL - Korea Existing Chemicals List; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

**Other Information****Disclaimer:**

The information provided in this Safety Data Sheet is correct to the best of Ralco's knowledge, information and belief at the date of preparation. The information provided is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The conditions or methods of said handling, storage, use, and disposal of this product are beyond our control. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expenses arising out of or connected with the handling, storage, use, or disposal of this product. The information provided relates only to the specific material designated, and may not be valid for such material used in combination with any other materials or in any process, unless specified in text.

# Birthright™ Bridge

*Formulated especially for disadvantaged pigs*

**Birthright™ Bridge** is highly digestible natural nutrition for fall-behind pigs that bridges the gap from milk to feed and promotes gut health.

## Helps Overcome:

- Lack of appetite
- Social competition
- Transition challenges



## What's Inside:

### STRONG ANIMALS® TECHNOLOGY

Microfused™  
Essential Oils

PATENT-  
PENDING

Reduce pathogen load, oxidative stress and promote health of stressed pigs while stimulating appetite.

Actifibe® Prebiotic

Feed beneficial gut bacteria and promote immune function.

Life Advantage  
Protein

Promote digestion through slow release proteins which help reduce the incidence of scours.

CRYSTALLINE  
AMINO ACIDS

Increases gain and efficiency.

SUPPLEMENTAL  
ENZYMES

More efficient gains, improved health.

ELECTROLYTES

Promotes hydration which is critical for health and nutrient transportation.

**NO VFD  
REQUIRED**

### Directions for Success:

Mix with water until desired consistency.  
See tag for full directions for use.



# THE DIFFERENCE

Birthright™ Bridge is powered by Strong Animals® technologies that make it the most effective milk-to-feed bridge in times of stress.

POWERED BY

PATENT PENDING



**STRONG ANIMALS™**  
TECHNOLOGY

Microfused™ Essential Oils

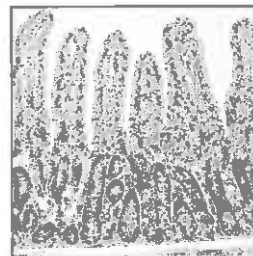
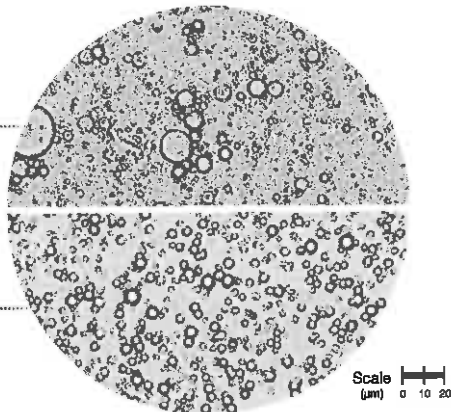
Patent-pending Microfused™ Essential Oils have smaller, more uniform droplets that stay stable over time and temperature. Protected droplets get where they are needed to facilitate and maintain intimate contact.

**Competitor Oil:**

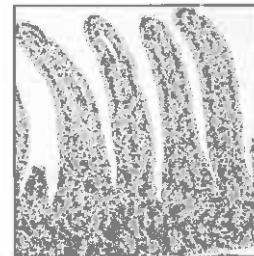
Larger oil droplets in competitive oil products coalesce and become unstable

**Microfused™ Essential Oils:**

20 times greater surface area; 100 drops per 1 drop of competitor



Control



Microfused™ Essential Oils

These micrographs demonstrate the increased strength of the villi, which directly contributes to greater nutrient absorption.

POWERED BY



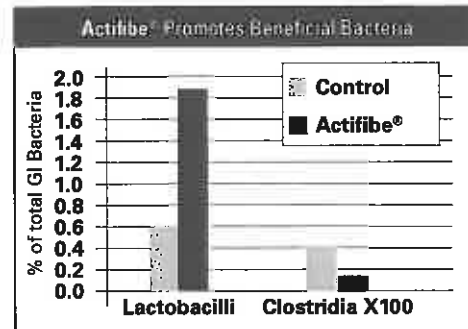
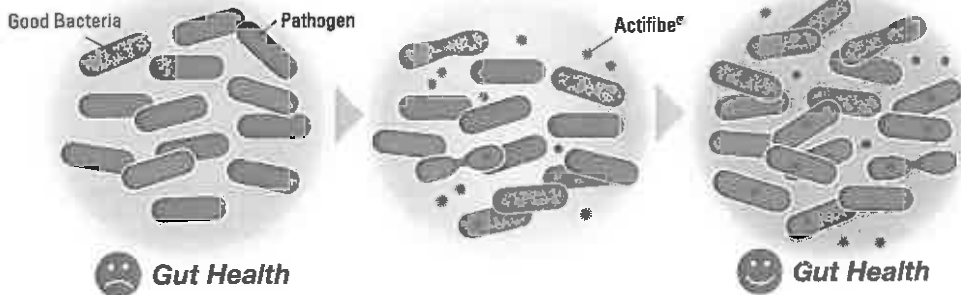
**STRONG ANIMALS™**  
TECHNOLOGY

Actifibe® Prebiotic

Beneficial bacteria multiply when they feed on Actifibe® crowding out pathogens for improved health and performance.

Good Bacteria Pathogen

Actifibe®



Research conducted by Purdue University

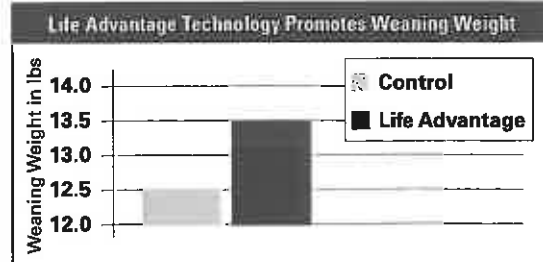
POWERED BY



**STRONG ANIMALS™**  
TECHNOLOGY

Life Advantage Protein

Clotting and non-clotting proteins in proprietary Life Advantage technology allow baby pigs to absorb more nutrients for increased average daily gain.



Cabrera, R., Feedstuffs

# 9104 Birthright™ Bridge

A Complete Feed for Weaned Nursery Pigs

## Guaranteed Analysis

Crude Protein	min	21.39 %	Salt	min	0.70 %
Lysine	min	1.60 %	Salt	max	1.20 %
Crude Fat	min	8.60 %	Sodium	min	0.50 %
Crude Fiber	max	1.40 %	Sodium	max	1.00 %
Calcium	min	0.50 %	Selenium	min	0.30 ppm
Calcium	max	1.00 %	Zinc	min	95 ppm
Phosphorus	min	0.60 %	Phytase	min	150 FTU/lb*

(*Pichia pastoris*, *Trichoderma reesei*)

## List of Ingredients

Dried Whey, Grain Products, Processed Grain By-Products, Animal Protein Products, Plant Protein Products, Porcine Digest, Dried Fermentation Biomass, Hydrolyzed Animal Fat, Hydrated sodium calcium aluminosilicate, Vegetable Fat, Calcium Carbonate, Lignin Sulfonate, L-Lysine, Phosphoric Acid, Fumaric Acid, Amorphous Silicon Dioxide, Lactic Acid, Citric Acid, DL-Methionine, Sodium Chloride, L-Threonine, Potassium Chloride, Roughage Products, Ferrous Sulfate, Strawberry Flavor, Saccharin Sodium, Vitamin E Supplement, L-Tryptophan, Selenium Yeast, Zinc Oxide, Manganese Sulfate, Mineral Oil, Diatomaceous Earth (flow agent), Zinc Sulfate, Chromium Propionate, Calcium Pantothenate, Lecithin, Potassium Sorbate, Dried *Trichoderma reesei* Fermentation Product, Niacin Supplement, Hemicellulose Extract, Essential Oils, Silicon Dioxide, Copper Chloride, Menadione Nicotinamide Bisulfite, Riboflavin Supplement, Vitamin A Supplement, Vitamin B12 Supplement, Folic Acid, Pyridoxine Hydrochloride, Vitamin D3 Supplement, Di-alpha Tocopherol Acetate Thiamine Mononitrate, Dried *Pichia pastoris* Fermentation Product, Natural Flavor, Ethylenediamine Dihydriodide, Biotin, Choline Chloride, Dicalcium Phosphate, Cobalt Sulfate, Copper Sulfate, Potassium Iodide, Calcium Iodide, Magnesium Sulfate, Copper Proteininate, Manganese Proteininate, Iron Proteininate, Zinc Proteininate, Egg Product

## Feeding Directions

Feed at a rate of 0.25-1 pounds per pig.

**CAUTION:** Follow label directions. The addition to feed of higher levels of this product containing selenium is not permitted.

\*One unit of phytase activity (FTU) is defined as the quantity of enzyme which liberates 1 micro-mole of inorganic phosphorus per minute.

**WARNING:** This product, which contains added copper, should not be fed to sheep or related species that have a low tolerance to copper.



Manufactured For:  
Ralco Nutrition, Inc.  
1600 Hahn Road  
Marshall, MN 56258 U.S.A  
1-800-533-5306



NET WEIGHT 25 lb. (11.4 kg)  
Lt Green

LOT NO: 2.8.2017

