

LICAN CELLS[®]

Spray Dried Blood Cells
(Hemoglobin Powder)

PRODUCT DESCRIPTION:

Species of Origin of goods:	Bovine
Type of goods:	Spray Dried Bovine Blood Cells
Recommended Use:	Aquaculture Feed, Piglet Feed, Petfood
Method of Application:	Add directly to the Feed
Dosage:	1% - 10%
Storage:	Store in cool and dry place
Expiration date:	2 year from production date
Package:	Sacks containing 25 kg, double-ply paper outer bag and polyethylene inner bag.

Ingredient for Animal Feeding

MANUFACTURER & EXPORTER:

Lican Alimentos Mexico S.A.	Bld de los Seris No. 76, Colonia Parque Industrial Hermosillo, Sonora, Mexico.
Lican Alimentos S.A.	Santa Adela 9589, Santiago, Chile.
Lican Paraguay S.A.	Teniente Espinola 535, Asunción, Paraguay

COMPOSITION - ANALYSIS:

<u>Chemical Analysis</u>			<u>Microbiologic Analysis</u>	
Total Protein	90 %	Minimum	Total aerobic plate cont	< 100.000 germs /g
Humidity	8 %	Maximum	Salmonella	Absent / 25 g
Fat	2 %	Maximum	E. coli	Absent / g
Ash	6 %	Maximum	Enterobacterias	< 10 germs / g

AMINO ÁCIDO PROFILE:

Amino Acid	Total
Alanine	7,20%
Arginine	4,10%
Aspartic Acid	10,60%
Cystine	0,61%
Glutamic Acid	7,81%
Glycine	4,70%
Histidine	7,10%
Isoleucine	0,55%
Leucine	13,15%

Amino Acid	Total
Lysine	8,82%
Methionine	0,81%
Phenylalanine	6,85%
Proline	3,20%
Serine	3,90%
Trheonine	3,48%
Tryptophane	1,28%
Tyrosine	1,95%
Valine	8,90%



Our factory in Chile: Lican Alimentos S.A. is an ISO 9001:2008 certified company and all the process is according to HACCP system certified by SGS.

VERSION 09/EN

LICAN MEXICO

Av. Blvd de los Seris No. 76, Colonia Parque Industrial Hermosillo, Sonora, Mexico
Fono: +52 (662) 2 51 03 54, +52 1 (644) 145 1447
Email: info@licanfood.com

LICAN CHILE

Santa Adela 9580, Santiago, Chile
Phone: 56 (2) 5381081, FAX: 56 (2) 5571341
E-mail: info@licanfood.com

LICAN PARAGUAY

Teniente Espinola 535, Asunción, Paraguay
Phone: 595 (21) 299 542, FAX: 595 (21) 299 543
E-mail: info@licanfood.com

CHARACTERISTICS OF LICAN CELLS: *(Hemoglobin Powder)*

LICAN CELLS is a highly digestible, palatable and concentrate protein ingredient (92%) obtained from animal blood and elaborated by LICAN company especially for animal feeds.

LICAN CELLS is made from the blood of healthy animals submitted to an official veterinary inspection pre and post mortem, and sacrificed in approved establishments under official control by competent authorities of Ministry of Agriculture.

LICAN CELLS is a very stable and very safe protein source elaborated under rigorous quality assurance procedures (GMP and HACCP), therefore, our product Spray Dried Blood Cells is recognized as safe, natural and wholesome feed ingredient.

LICAN CELLS is widely used and accepted in diets of several species from monogastrics to fishes. Spray dried blood cells is a high quality protein source that is highly digestible. The product is high in lysine and other essential amino acids.

LICAN CELLS is very consistent from load to load. This leads to confidence in formulation and final nutrient values of the complete feed. Typically a range of inclusion in aqua feed formulas is 2.5% to 7.5%. In piglets and pigs feed the recommended range of inclusion is 1.5 to 3.0%.

LICAN CELLS is an ideal alternative to replace fish meal, which can be expensive and very inconsistent. Spray dried blood cells is particularly recommended for animals and fishes with high protein requirements. Research has shown the use of spray dried blood cells in fish feed to increase the weight gain and efficiency of feeding.

LICAN CELLS improves pellet quality. In high protein aquafeed formulations, LICAN CELLS in doses below 5% results in diets with high protein content, while allowing for other low-protein ingredients (e.g. oils). In addition, the functional qualities of blood protein (gelling and coagulation) turn it into a binding element (binder) that improves physical quality of aqua-pellet (stability in the water), particularly in small-size pellet and crumbled aquafeeds.

SUMMARY:

- High Protein (92%) and excellent amino acid profile
- High Lysine content (8%)
- Excellent digestibility and palatability
- Constant composition, very stable and very safe protein source
- Many aquaculture fishes are carnivores, and need high quality animal proteins
- Improved physical quality of aqua-pellet

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