

# *AniNutra*<sup>™</sup>

Schizochytrium Powder -  
Algal DHA Powder Feed Grade

## **Sustainable Development**

Use of Microbial Fermentation Technology to Reduce Dependence on the Ocean.

## **Improve Bioavailability**

Utilizing low-temperature drying technology to minimize lipid oxidation, protein denaturation, and reduce nutrient loss

## **Improve Feed Quality**

With extremely high content of DHA, excellent EAAs, and rich nutritional value.

## **Reduce Feed Conversion Ratio**

Significantly improve the active components, enhance immunity and promote animals growth.



Schizochytrium is a type of microalgae from the deep sea, which is not only rich in unsaturated fatty acids such as DHA, but also contains polysaccharides, active peptides, squalene, and other immunologically active substances. It provides a complete range of essential amino acids and can be used as a feed additive or as a source of protein and oil in feed.

## Functions

### 1 Promoting Growth and Development

Various vitamins and minerals in Schizochytrium can promote the growth and development of animals.

### 2 Enhancing Antioxidant Capacity

Substances such as  $\beta$ -carotene, carotenoids, and flavonoids in Schizochytrium can effectively resist free radical damage, enhancing the animals' antioxidant capacity.

### 3 Disease Prevention

Substances like polysaccharides, active peptides, and squalene in Schizochytrium can enhance the animals' immune system, preventing the occurrence of diseases

### 4 Promoting Digestion and Absorption

Schizochytrium can enhance intestinal microbiota diversity, promote gastrointestinal motility, and improve digestive absorption capacity.

## Comparison of conventional DHA sources

	Nutritive Value	Absorption Effect	Stability	Convenience	Batch Stability	Odour	Shelf Life	Safety
Schizochytrium Powder	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Algal DHA	★★★★	★★★★★	★★★★	★★	★★★★	★★★★	★★★	★★★★★
Fish DHA	★★	★★	★★	★★	★★★	★★	★★	★★

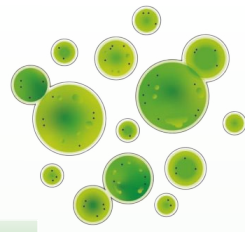
## Proposed Dosage



**Animal Species: Aquaculture, Poultry, Ruminant, Pets etc.**

**Dosage: 10-30KG/Ton**

# Nutritional Component

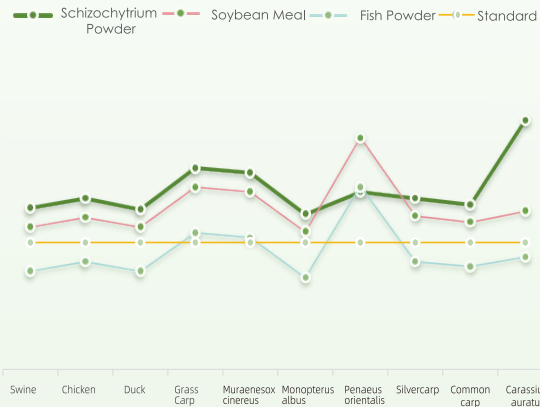


## Comparison of Nutrition Facts

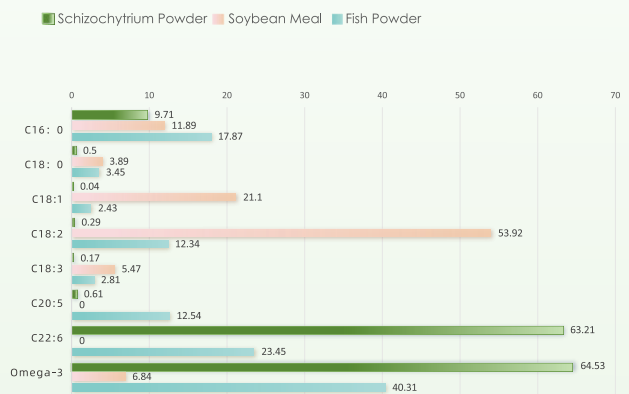
Feed Type	Crude Fat	Crude protein	Methionine	Lysine
Schizochytrium Powder	72.54	15.51	0.71	2.30
Soybean Meal	1.9	44.2	0.59	2.38
Fish Powder	3.14	62.8	1.84	4.90

Reference: China Feed Composition and Nutritional Value Table (30th edition 2019)

## Analysis of EAAI Composition



## Analysis of Fatty Acid Composition



Schizochytrium has demonstrated excellent protein value in different species, and its high content of Omega-3 significantly enhances the nutritional value of feed.

## Application of Schizochytridium in Production

Types	Varieties	Test Samples	Formulas	Functions
Aquatic	Fish	Red Sea Bream Seeding	1%-2% Schizochytridium Powder	Improve the survival rate
		Grouper	1%-2% Schizochytridium Powder	Increase body length and body weight
		Carp	1%-3% Schizochytridium Powder	Improve fatness and reduce feed conversion ratio
	Shellfish	Crab Seeding	1%-3% Schizochytridium Powder	Greatly improve survival rate and molting rate
		River Crab	1%-2% Schizochytridium Powder	Enhance survival rate and body weight
		Abalone Seeding	1.5%-2.5% Schizochytridium Powder	Increase growth rate, shell length, and body weight
		Penaeus Orientalis	0.5%-3% Schizochytridium Powder	Enhance individual body weight and reduce feed conversion ratio
Livestock	Poultry	Xinghua Chicken	1%-2% Schizochytridium Powder	Increase the content of DHA in egg yolk and improve the fatty acid ratio
		Egg Chicken	3%-5% Schizochytridium Powder	Increase the content of DHA in egg yolk
	Swine	Pork Pig	2% Schizochytridium Powder +0.02% phytosterol	Accumulate a 13-fold increase in DHA content in fat, improving carcass quality
Ruminantia	Cattle	Dairy Cattle	1%-2% Schizochytridium Powder	Increase the DHA content in milk, reaching a level of 100-200mg/L
		Calf	1-2% Schizochytridium Powder +0.1% Lactoferrin	Improve calf diarrhea, increase the weight and daily gain of suckling calves
	Sheep	Goat	0.5%-3% Schizochytridium	Enhance antioxidant capacity, and increase the DHA content in goat milk
		Mutton Sheep	2-3% Schizochytridium	Reduce the cholesterol content in meat and improve carcass quality

HSF Biotech is a high-tech enterprise in China that focuses on biotechnological innovation and the production of functional health product ingredients. Since the establishment, we have been focused on the differentiation of market applications and the actual demands of customers. Our core business involve natural vitamin E, microencapsulation powders, and etc.

"Always with the customer" has been HSF's enduring driving force over the years. With its continuously efforts in research and development of microbial fermentation technology over the past decade, HSF owns its own strain banks and patented extraction technologies. The launch of the Fermtek™, a brand for fermentation product line, creates opportunities for us to collaborate with our global partners.

## Comparison With Traditional Schizochytrium Powder

### AniNutra™ Schizochytrium Powder

- Originally fermented
- Low temperature drying
- Chemical solvent free
- High nutritional value
- Stable product quality
- Whole bacteria with light smell
- Strong palatability

### Traditional Schizochytrium Powder

- Fermentation waste, by-products
- High temperature drying
- Solvent residue
- Low nutrient absorption rate
- Poor quality, easy to deteriorate
- Damaged bacteria with strong fishy smell
- Poor palatability

## Product Specifications

Product Name	Specification	Appearance	Product Feature
AniNutra™SC45	45%	Light yellow powder	<ul style="list-style-type: none"> <li>● Produced directly by drying pure fungal powder;</li> <li>● Retain the nutritional components and activity to the greatest extent.</li> </ul>
AniNutra™SC20	20%	Light yellow powder	<ul style="list-style-type: none"> <li>● Better flowability,</li> <li>● Easy and uniform dispersion of the material,</li> <li>● Convenient for feeding</li> </ul>
Customized with different contents and formulations			