

*Future of healthy living,  
A perfect harmony between Science and Nature*



100%  
Botanic & Natural  
Bioactives/  
Concentrates

For Sports Nutrition

\*

For Functional Foods

\*

For Dietary Supplements

For Kids & Women  
Functional Foods & Products

\*

For Supplements: Healthy  
Aging & Added Healthcare



Nurture health & wellbeing with Helixion's Plant based & 100% natural Bioactives by focusing on innovation using Helixion's Patented Nanotechnology process and Patent Pending Nano-Conjugation technology that's safe, healthy, highly efficient thus working on developing a sustainable food systems that shall not only meet but strive to exceed our customer expectations.

## Key Product Categories where Helixion's Research & Innovation focuses on :

**Nano-Extract Liquid & Nano-Conjugate Emulsions** – Nano Nutraceuticals

**Lipid Modifying Agent- Nano Policosanol ( Water Soluble)**

**Probiotics & Postbiotics And Other Gut Health Enhancer** Bioactives With Unique Health Benefits

**Legume / Plant Base Peptides & Natural Peptides**

**Microgreen Concentrates** – Legume Base

## Target Functional Deliveries from each Bioactive, that drives our Research Team :

- **Sports Nutrition Ingredients** – Sustained Energy Release/ Delayed Fatigue/ Muscle Repair/ Hydration.
- **Cognitive Health & Wellbeing** – For Ageing Individuals
- **Gut Health & Well Being** – Pre & Post Biotics & Post Biotic Lysates
- **Ingredients For General Health & Wellness** – Basic Minerals & Vitamins & Complexes/ Plant Based Fiber / Plant Based Nano-Peptides – Overall Health & Wellbeing.
- **Telomere Activation Ingredients (Longevity)** – Bioactive Concentrates /Complexes For Telomere Activation Thus Enhancing Life Expectancy, Which Goes Hand In Hand With Regular Exercise & Food Habits.

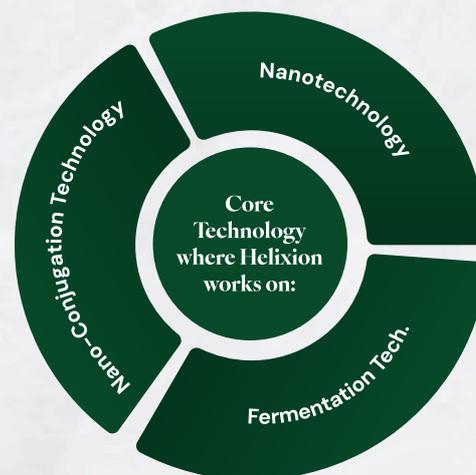
## Different Applications Of Helixion's "Green Bioactives

- **Direct Use** – With Early Morning Water Or As It Is Based On Once Preference & Liking.
- **Bio Actives For Functional Foods:** Fortified Yoghurt / Fortified Cereals / Fortified Milk / Energy Bars / Herbal Tea
- **Bio Actives For Dietary Supplements** – In The Form Of Liquids/ Tablets/ Capsules/ Powder.
- **Healthy 100% Plant Based Drink Formulations.**
- **Can Be A Part Of Your Early Morning Tea/ Black Coffee/ Smoothies With Concoctions Of Different Plant Based Bioactives.**
- **Can Be A Part Of Your Child's / Teenager's Morning/ Evening Milk** – Making Your Child's Milk More Naturally 100% "Green Nutrition" Enriched.

**HELIION**  
BIOSCIENCES

molecules for a better tomorrow.....

TM



## Quality/ Regulatory Certifications



Current Good Manufacturing Practices (cGMP)



Food Safety and Standards Authority of India  
Licence No.: 12725998000472

## Scientific Support Partner



Senza ZEN –SWEDEN



CCFT –INDIA



INDIAN  
TOXICOLOGICAL  
RESEARCH INSTITUTE-  
Lucknow ( INDIA)



CSIR-CDRI – Central  
Drug Research  
Institute - LUCKNOW

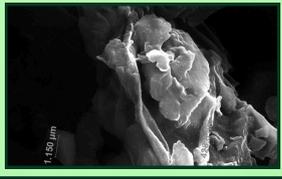
# About Helixion's Nanotechnology

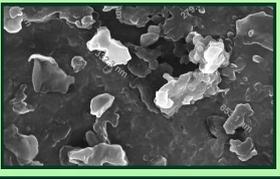
Patented Technology : Patent No. : 573921 Date of Grant : 17/11/2025

Tech : Specific target Enzyme Concoction Development by Helixion's Scientists helping in Fermentation process leading to Hydrolysis of Plant /Natural Extracts & also Proteins , further aided with "Nanotechnology" helps in developing Unique Nano-BioActives that has Super Enhanced Bioabsorption & Much Superior Functional Deliveries compare to Plain Botanic Extracts/ Powders / Tablets available today in the market.

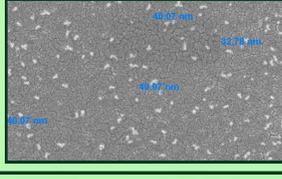
## Actual SEM Image of Nano-Botanic Actives Vs. Extract (Powder) : Ex-Moringa (Conducted by CSIR-CDRI Lucknow,INDIA) :

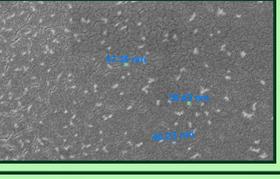
Moringa Leaf Powder





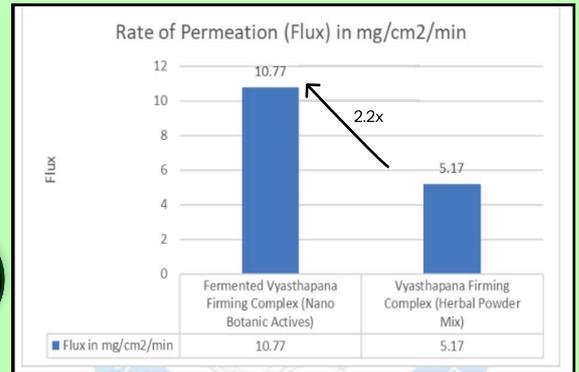
Moringa Leaf Nano Extract





SEM Image- Observations & Inference		
Particle Size	Moringa Leaf Powder	Moringa Nanoextract
Particle Size Range	250NM to 1150NM	30NM to 45NM
Avg Particle Size	600NM	40NM
Size Uniformity	Extremely Erratic & Ununiform	Uniform Size/ Excellent Distribution

## Actual Permeation Study done on Nano-Botanic Actives Vis-à-vis Liquid Extract (Conducted by CCFI, Meerut, INDIA) :



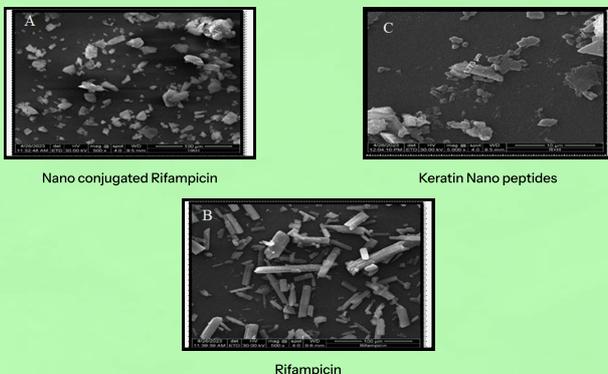
Fermented Vyasthapana Firming Complex (Nano Botanic Actives) showed more permeation through the membrane in comparison to Vyasthapana Firming Complex (Herbal Powder Mix).

- Higher Flux confirms faster permeation in the Nano Botanic Active
- Higher permeated quantity is seen for Nano Botanic Active

# Helixion's Nano-Conjugation Technology

Patent Pending Technology : Application No. : 202541023388 Date : 2025/03/17

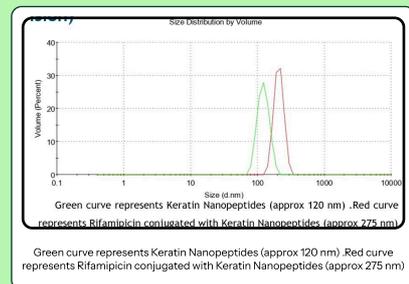
## SEM Image Showing Nano conjugation (Rifampicin (Powerful Antibiotic for treating serious bacterial infections like TB/ Leprosy), with Keratin Nano-peptides) – Conducted by CSIR-CDRI, Lucknow, India



The Nano Conjugated Rifampicin is analyzed with Scanning Electron Microscopy along with Rifampicin alone and Keratin nano peptides alone.

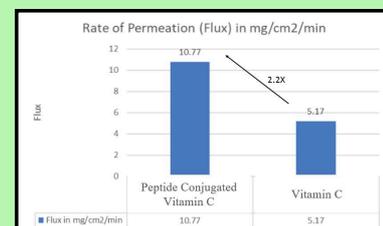
CDRI mentioned that in this Rifampicin seems to have shown almost 60% enhanced bio-absorption, hence should be that much more effective compare to the regular molecule, however no further In-Vivo study has been conducted by CDRI.

## Mie Scattering Technology: Confirming Nano Conjugation of Drug Rifampicin with Keratin Nanopeptides.



Keratin Nanopeptides are conjugated with drug Rifampicin (done by CSIR-CDRI). The particle size and hydrodynamic diameter were determined using light scattering techniques and applying Mie theory, performed on a Malvern Zetasizer ZS instrument. Analysis of Keratin nano peptides in water reveals a particle size distribution centered around a median diameter of 120nm. When rifampicin, an anti-TB drug, is added in saturating amounts, it conjugates with Keratin Nps Polypeptide chain. This Conjugation leads to a change in the median hydrodynamic diameter, increasing it to approximately 275 nm.

## Permeation Study done on Nano- Conjugated Vitamin-C- Conducted at CCFI, Meerut, India



- The permeation in case of Nano Conjugate is approx. 2.2X than the pure Vitamin C
- Higher flux confirms faster permeation in Nano Peptide Conjugated Vitamin C

# Superfood Nano Extract



# Spirulina Extract

## Nano Concentrate Liquid

### Wholesome Superfood Nutrition

Small size of Nanoparticles enables them to pass through natural biological barriers, such as the intestinal epithelia, facilitating better entry into the body and target sites.

Spirulina is the dried biomass of blue-green algae, that grows in fresh and salt water. It is indeed celebrated as a "superfood" due to its rich and diverse nutrient profile that packed with vitamins, minerals, antioxidants, and protein. Spirulina has been promoted as "the food of the future" due to its remarkable components polysaccharides and essential fat (GLA) are absorbed easily by human cells and help in energy release. Whether you're an athlete, a health enthusiast or just looking for a natural nutrient enhancement, Spirulina offers a powerful solution grounded in science and exploration.



### AMAZING FACTS OF SPIRULINA

Spirulina contains all nine essential amino acids, making it an excellent choice for vegetarians and vegans.

Spirulina as a potential space food for astronauts due to its high nutrient density and minimal growing space requirements.

Spirulina binds with heavy metals like arsenic and mercury and helps eliminate them from the body

Due to its high content of complete protein and minerals such as iron and calcium, it is an excellent addition to diets, especially those of vegans and vegetarians



### HEALTH BENEFITS - "One solution for all"

#### Boosts Immunity:

Phycocyanin can help fight oxidative stress by blocking the molecules that promote inflammation and providing impressive antioxidant and anti-inflammatory effects.

#### Aids Heart Health:

Spirulina might assist in reducing blood pressure by boosting nitric oxide production, which relaxes blood vessels, and can also enhance cholesterol and triglyceride levels.

#### Manages Blood Sugar:

Spirulina may help lower blood sugar levels, which is beneficial for managing diabetes.

#### Fights Allergies:

It can reduce symptoms associated with allergic responses by lowering inflammation.

#### Fights Anemia:

Its high iron content, easily absorbed by the body, helps reduce anemia

#### Enhances Stamina and Muscle Power:

It can lead to better athletic performance and endurance

#### Losing weight:

It could also help improve the fat content in the blood, Spirulina obstruct the small intestine's capability to absorb fat efficiently.

#### Protects Visual Function:

Spirulina appears to hold potential as a nutritional supplement to prevent vision impairment caused by oxidative damage in the future

#### Nutritional Powerhouse:

Spirulina offers astronauts vital nutrients, assisting them in preserving physical health, muscle mass, and energy during space missions.

#### Neurodegenerative Diseases:

Its anti-inflammatory and antioxidant actions may help prevent or slow the progression of conditions like Parkinson's, Alzheimer's disease, and Multiple Sclerosis.



### WHO SHOULD CONSUME SPIRULINA EXTRACT

**Vegetarians and vegans** due to its high protein and vitamin content.

**People with high cholesterol or blood pressure**, along with diabetes, may gain benefits.

**Individuals with Iron Deficiency / Anemia.**

**Those who regularly engage in energetic physical activity.**

Its rich nutrient profile, including protein and iron, can be beneficial during pregnancy

**Healthy Individuals** due to its plentiful of vitamins, minerals, and antioxidants to improve general well-being and boost the immune system.



### PACKAGING/STORAGE/SHELF LIFE

**Packaging:**  
5kg/25kg Aluminium can/ Packed under Sterilized condition

**Storage Condition:**  
Store in cool and dry place in original packing. Avoid exposure to extreme conditions

**Shelf Life:**  
18 months if stored in specified storage conditions.

### APPLICATION DETAILS

S.No.	Various Applications	Main Claims Markers for Recommended Applications	Recommended Dosage / Bulk Batch* (For the Manufacturer of a Consumer brand)	Effective Dosage / Serving (For the Ultimate Consumer)	Recommended Dosage / Day		
					For Adults	For Teenagers	For Kids (5-10 yrs)
1.	Milk Fortification*	Protein, Minerals (Calcium, Phosphorus and Iron), Vitamins (Pro-vitamin A, B12)	30 L of Nano-Concentrate Spirulina Liquid(1000L Batch)	Adults : 25mL x Two Serving	50 mL	50 mL	15-20 mL
2.	Fruit Juice Fortification						
3.	Complete Plant Based Protein Drinks	Protein, Minerals (Calcium, Phosphorus and Iron), Vitamins (Pro-vitamin A, B12), Bioactive (Phycocyanin & Polysaccharide), PUFA and MUFA (Linolenic Acid)	50 L of Nano-Concentrate Spirulina Liquid (1000L Batch)	Adults : 15 - 17 mL x Three Servings	50 mL	50 mL	15-20 mL
4.	Fortification of Protien Drinks with Plant based Nutrition						
5.	Fortification of Child Focused Drinks to counter Child Malnutrition			Childs: 15 - 17 mL x Three Servings		50 mL	

# Spirulina Extract

## Nano Concentrate Liquid



**Wholesome Superfood Nutrition**

### NUTRITIONAL VALUE

#### Sensory Data

Appearance	Liquid
Colour	Rich Blue
Flavor and Odour	Characteristic
Taste	Earthy and Grassy

#### Functional Bioactive

Phycocyanin	0.4-0.6%
Total carotenoids	300-320mg/10gm

#### Mineral

Potassium	277.60 mg/kg
Calcium	38.70 mg/100g
Phosphorus	16.42 mg/100g
Manganese	4.46 mg/kg
Zinc	7.98 mg/kg
Magnesium	54.91 mg/100g
Sodium	44.39 mg/100g
Iron	4.58 mg/100g

**This is a Nutritional Supplement and not a replacement for medical treatment.**

#### Nutritional Data

Calorific Value	210 kcal/100g
Protein	50.24 g/100g
Soluble Fiber	6.48 g/100g

#### Vitamins

Beta- Carotene (pro-vitamin A)	50-60mg/100g
Biotin	370-380 mcg/100g
Tocopherol (vit E)	20-25 mg/100g
Thiamine (vit B1)	20-25 mg/100g
Riboflavin (vit B2)	90-92 mg/100g
Niacin (vit B3)	206-210 mg/100g
Cyanocobalamin (vit B12)	2-3mcg/100g
Pantothenic acid	8-9 mg/100g
Flavonoid	0.012-0.015%

#### Heavy Metals

Lead (Pb)	<0.05mg/kg
Cadmium (Cd)	<0.05mg/kg
Arsenic (As)	<0.05mg/kg
Mercury (Hg)	<0.05mg/kg

### SCIENTIFIC STUDY REFERENCES

Clinical comparison of the efficacy of spirulina-platensis and cetirizine for treatment of allergic rhinitis., Nourollahian M, Rasoulian B, Gafari A, Anoushiravani M, Jabari F, Bakshshae M., Acta Otorhinolaryngol Ital. 2020 Jun;40(3):224-229. doi: 10.14639/0392-100X-N0139. PMID: 32773785; PMCID: PMC7416373.

The effects of Spirulina Platensis on anthropometric indices, appetite, lipid profile and serum vascular endothelial growth factor (VEGF) in obese individuals: a randomized double blinded placebo controlled trial., Zeinalian R., Farhangi M. A., Shariat, A. et al., BMC Complement Altern Med 17, 225 (2017). <https://doi.org/10.1186/s12906-017-1670-y>

\*A randomized study to establish the effects of spirulina in type 2 diabetes mellitus patients., Lee, Eun Hee et al. Nutrition research and practice vol. 2, 4 (2008): 295-300. doi:10.4162/nrp.2008.2.4.295

Spirulina maxima Decreases Endothelial Damage and Oxidative Stress Indicators in Patients with Systemic Arterial Hypertension: Results from Exploratory Controlled Clinical Trial., Martínez-Sámano J, Torres-Montes de Oca A, Luqueño-Bocardo OI, Torres-Durán PV, Juárez-Cropeza MA, Mar Drugs. 2018 Dec 8;16(12):496. doi: 10.3390/md16120496. PMID: 30544795; PMCID: PMC6315638.

Spirulina as a daily nutritional supplement of young pre-school cambodian children of deprived settings: a single-blinded, placebo-controlled, cross-over trial., Barennes, H., Houdart, L., de Courville, C. et al. BMC Pediatr 22, 701 (2022). <https://doi.org/10.1186/s12887-022-03766-5>

Effect of Arthrospira (Spirulina) maxima Supplementation and a Systematic Physical Exercise Program on the Body Composition and Cardiorespiratory Fitness of Overweight or Obese Subjects: A Double-Blind, Randomized, and Crossover Controlled Trial., Hernández-Lepé MA, López-Díaz JA, Juárez-Cropeza MA, Hernández-Torres RP, Wall Medrano A, Ramos-Jiménez A., Mar Drugs. 2018 Oct 1;16(10):364. doi: 10.3390/md16100364. PMID: 30275428; PMCID: PMC6213464.

# Moringa

Nano Concentrate - Liquid

Anti Oxidant / Anti Inflammator/ A Prebiotic

Small size of Nanoparticles enables them to pass through natural biological barriers, such as the intestinal epithelia, facilitating better entry into the body and target sites.

Moringa Oleifera is a perennial herb tree called "the Miracle Tree" because of its impressive nutritional profile and potential health benefits. Moringa contains plenty of nutrients such as vitamins A, B, and C, calcium, iron, protein, and antioxidants, which makes it an excellent choice for a nutritious low calories diet.

## AMAZING FACTS OF MORINGA

It is an excellent choice for vegetarians and vegans, contains all essential amino acids.

Moringa is loaded with antioxidants, benefits your immune system by helping your body fight infections and reducing inflammation.

Its high dietary fibres content and anti-inflammatory properties help with digestion, reduce bloating, and promote a healthy gut



## HEALTH BENEFITS

**Protecting Liver:**  
Moringa contains polyphenols and flavonoids that act as antioxidants and detoxifiers. Protects the liver from toxins, improve lipid profile, which reduces fatty deposits in the live.

**Cardiovascular Health:**  
Moringa extract rich in antioxidants, helps in lowering cholesterol, triglycerides, and blood pressure

**Fighting bacterial infections:**  
Acts as a natural antimicrobial agent. Disrupt microbial cell membranes & inhibit bacterial replication

**Treating anemia and Malnutrition:**  
Contains excellent source of iron, protein, and vitamins, essential amino acids for treating malnutrition and iron-deficiency anemia.

**Management of Blood Sugar :**  
Moringa may help manage diabetes by improving blood sugar control, enhancing insulin sensitivity, and reducing oxidative stress due to its antioxidant properties. It can lower fasting blood glucose levels and has bioactive compounds that help the body use insulin more effectively. However, it is crucial to consult a doctor before adding moringa to your regimen, as it can interact with diabetes medications.



## WHO SHOULD CONSUME MORINGA

Vegetarians and Vegans, making it a complete plant protein source.

Malnourished Individuals due to its dense nutrient content

For general wellness, moringa boosts energy

Pregnant and Breastfeeding Women

People with High Blood Pressure or High Cholesterol

People with Iron Deficiency / Anemia



## PACKAGING/STORAGE/SHELF LIFE

**Storage Condition:**  
Store in cool and dry place in original packing. Avoid exposure to extreme conditions

**Packaging:**  
5kg/25kg Aluminium can/  
Packed under Sterilized condition

**Shelf Life:**  
18 months if stored in specified storage conditions.

## APPLICATION DETAILS

S.No.	Various Applications	Main Claims Markers for Recommended Applications	Recommended Dosage / Bulk Batch ( For the Manufacturer of a Consumer brand)	Effective Dosage / Serving ( For the Ultimate Consumer)	Recommended Dosage / Day			
					For Adults	For Teenagers	For Kids (5-10 yrs)	
1.	Milk Fortification*	Protein and Calcium	30 L of Nano-Concentrate Moringa Liquid / 1000 L batch	Adults : 15 - 20 mL x Single Serving	15 - 20 mL	15 - 20 mL	7 - 10 mL	
2.	Fruit Juice Fortification	Protein and Calcium	30 - 50 L of Nano-Concentrate Moringa Liquid / 1000 L batch	Adults : 5 - 7 mL x Three Servings	15 - 20 mL	15 - 20 mL	7 - 10 mL	
3.	Plant Based Health Drinks	Protein (containing all 9 essential Amino Acids), Minerals (Calcium & Potassium, Magnesium and Zinc) Vitamins (Vitamin A and Folate), Bioactives (Flavonoids, Polyphenols)		Adults : 8 - 10 mL x Four Servings	30 - 40 mL	30 - 40 mL	15 - 20 mL	
4.	Fortification of Protein Drinks with Plant based Nutrition			Adults : 8 - 10 mL x Four Servings	30 - 40 mL	30 - 40 mL	15 - 20 mL	
5.	Fortification of Child Focused Drinks to counter Child Malnutrition			Childs: 10 - 15 mL x Three Servings		30 - 45 mL		
6.	For Plant based energy Drinks (Safer & Healthier option than Energy drinks with Synthetic caffeine)			Adults : 8 - 10 mL x Four Servings	30 - 40 mL	30 - 40 mL	15 - 20 mL	
7.	For Happy Morning Tea/ Coffee & / or Morning Milk or Smoothies			5 - 10 mL x Single Serving	5-10 mL	5-10 mL		

# Moringa

Nano Concentrate - Liquid

Anti Oxidant / Anti Inflammator/ A Prebiotic

This is a Nutritional Supplement and not a replacement for medical treatment.



## NUTRITIONAL VALUE

### Nutritional Data

Calorific Value	210-211 kcal/100g
Protein	3-4 g /100g
Carbohydrate	28-31 g /100g
Soluble fiber	9-10 g /100g

### Functional Bioactive

Bioflavonoid	238-241 mg/kg
Polyphenols	1250-1260 mg/kg

### Minerals

Potassium	154-156 mg/100g
Calcium	317-319 mg/100g
Zinc	0.53-0.55 mg/100g
Magnesium	87-89 mg/100g
Sodium	9-10 mg/100g
Iron	0.8-0.9 mg/100g
Phosphorus	40-42 mg/100g

### Sensory Data

Appearance	Liquid
Colour	Brown colour
Flavor and Odour	Characteristic
Taste	Green beans flavor

### Vitamins

Biotin	150-152 mcg/100g
Folic acid	0.15-0.18mcg/100g
Cyanocobalamin (vit B12)	10-12 mcg/100g
Riboflavin (vit B2)	25-27 mg/100g

### Heavy Metals

Lead (Pb)	<0.05 mg/kg
Cadmium (Cd)	<0.05 mg/kg
Arsenic (As)	<0.05 mg/kg
Mercury (Hg)	<0.02 mg/kg

## SCIENTIFIC STUDY REFERENCES

Effect of Moringa Oleifera leaf powder supplementation on reducing anemia in children below two years in Kisarawe District, Tanzania., Shija AE, Rumisha SF, Oriyo NM, Kilima SP, Massaga JJ, Food Sci Nutr. 2019 Jul 4;7(8):2584-2594. doi: 10.1002/fsn3.1110. PMID: 31428346; PMCID: PMC6694432.

Effects of Moringa oleifera Lam. Supplementation on Inflammatory and Cardiometabolic Markers in Subjects with Prediabetes., Diaz-Prieto LE, Gómez-Martínez S, Vicente-Castro J, Heredia C, González-Romero EA, Martín-Ridaura MdC, Ceinos M, Picón MJ, Marcos A, Nova E. Nutrients. 2022; 14(9):1937. https://doi.org/10.3390/nu14091937

Effect of Moringa oleifera Leaf Powder Supplementation in Children with Severe Acute Malnutrition in Gwalior District of Central India: A Randomised Controlled Trial., Yadav H, Gaur A, Bansal SC. J Clin of Diagn Res.2022; 16(8):SC09-SC14. https://www.doi.org/10.7860/JCDR/2022/55126/16746

Moringa Oleifera Leaf Increases Insulin Secretion after Single Dose Administration: A Preliminary Study in Healthy Subjects., Anthanont P, Lumlerdkij N, Akarasereenont P, Vannasaeng S, Sriwijitkamol A. J Med Assoc Thai. 2016 Mar;99(3):308-13. PMID: 27276742

# Cordyceps Extract

## Nano Concentrate Liquid

**Energy/Stamina Booster**

Small size of Nanoparticles enables them to pass through natural biological barriers, such as the intestinal epithelia, facilitating better entry into the body and target sites.

Cordyceps is a species of fungus in the family Cordycipitaceae, have several biologically important components such as proteins, polysaccharides, essential amino acids and vitamins like B1, B2, B12, and K. Cordyceps contain a bioactive component called cordycepin. This can help with inflammation related to asthma, rheumatoid arthritis, hepatitis and parkinson's disease. Cordyceps contains polyphenols, which can act as antioxidants or help boost antioxidant activity and increased the production of collagen in the skin. Cordyceps may help increase the body's production of the molecule adenosine triphosphate (ATP), which is essential for delivering energy to the muscles. Cordyceps extract is known for its diverse health benefits, including improved stamina and endurance, enhanced immune function, and potential anti-aging properties.



### AMAZING FACTS OF CORDYCEPS

Cordyceps possesses anti-cancer properties with the ability to inhibit tumor growth.

Helps in reducing inflammation and fighting oxidative stress..

Cordyceps can boost immunity by demonstrating immunomodulatory effects.

Its antioxidant, anti-inflammatory, and anti-apoptotic properties have positive impacts on neurodegenerative disorders

Reduced inflammation may also help boost exercise performance.

Cordyceps might enhance oxygen absorption and stamina, supporting athletic performance and recovery



### HEALTH BENEFITS

**Immunomodulation:**  
Cordyceps acts as an immunomodulator, which is beneficial for developing treatments that can help manage immune responses in various conditions.

**Neuroprotection:**  
Nucleosides such as adenosine, present in Cordyceps, exhibit neuroprotective and analgesic effects, aiding in therapies for neurological conditions.

**Therapeutic Agents:**  
Cordyceps includes numerous bioactive substances like cordycepin and polysaccharides, which show anti-cancer, anti-inflammatory, and antiviral effects, rendering them important for creating new medications.

**Improves General Metabolic Health:**  
Cordyceps can also improve oxidative stress and inflammation markers, which are often associated with conditions like Type 2 Diabetes.

**Improve kidney health:**  
The antioxidant and anti-inflammatory properties of cordyceps enhance kidney health or preventing kidney disease.



### WHO SHOULD CONSUME CORDYCEPS

Athletes and people who frequently undergo intense physical exertion

People with low energy or fatigue.

Individuals with respiratory issues.

People looking for immune support.

Individuals diagnosed with type 2 diabetes.



### Athletic Performance

It provides a 3-times improvement in performance primarily by increasing oxygen intake. This effect is crucial as the extract acts as an anti-fatigue and endurance booster. Furthermore, it naturally enhances the body's Maximum Oxygen Intake, which is the key measure of the body's ability to utilize oxygen during intense exercise.



### PACKAGING/STORAGE/SHELF LIFE

**Storage Condition:**  
Store in cool and dry place in original packing. Avoid exposure to extreme conditions

**Packaging:**  
5kg/25kg Aluminium can/ Packed under Sterilized condition

**Shelf Life:**  
18 months if stored in specified storage conditions.

### APPLICATION DETAILS

S.No.	Various Applications	Main Claims Markers for Recommended Applications	Recommended Dosage / Bulk Batch ( For the Manufacturer of a Consumer brand)	Effective Dosage / Serving ( For the Ultimate Consumer)	Recommended Dosage / Day	
					For Adults	For Teenagers
1.	Fortification of Protein Drinks with Plant based Nutrition - Anti-oxidants	Bioactives (Cordycepin, Adenosine, and Polysaccharides), Protein and Amino Acid (L-Arginine, L-Proline, Glutamic acid), GABA, Minerals (Potassium, Calcium and Magnesium) and Vitamins (Vitamin A, Vitamin E and Vitamin B2)	20-25 L of Cordyceps Nano Concentrate / 1000 L	Adults : 5 - 8 mL x Two Servings (10 - 16 ppm of Cordycepin)	Once Daily	Once Daily
2.	For Plant based energy Drinks (Pre- / Post workouts)			Adults : 10 - 15 mL/ Single Serving (on need basis) (10 - 16 ppm of Cordycepin)	As & when required (Pre- / Post - workout)	As & when required (Pre- / Post - workout)
3.	For Fresh Morning Tea/ Coffee or Smoothies for sustained energy			Adults : 5 - 8 mL x Two Servings (10 - 16 ppm of Cordycepin)	Twice daily	Twice daily

# Cordyceps Extract

## Nano Concentrate Liquid

**Energy/Stamina Booster**



### NUTRITIONAL VALUE

#### Nutritional Data

Calorific Value	210-211 kcal/100g
Protein	3-4 g /100g
Carbohydrate	28-31 g /100g
Soluble fiber	9-10 g /100g

#### Functional Bioactive

Cordycepin	1000mg/Kg Min.
Flavonoids	0.5-0.7 mg/ml
Polysaccharides	13-20 mg/ml

#### Minerals

Potassium	245-247 mg/100g
Calcium	13-15 mg/100g
Zinc	0.16-0.18 mg/100g
Magnesium	4-6 mg/100g
Sodium	8-10 mg/100g
Iron	1-2 mg/100g
Phosphorus	0.18-0.20 mg/100g

#### Sensory Data

Appearance	Liquid
Colour	Yellow to orange colour
Flavor and Odour	Characteristic
Taste	Earthy and Nutty flavor

#### Vitamins

Biotin	170-172 mcg/100g
Folic acid	1-2 mcg/100g
Cyanocobalamin (vit B12)	11-12mcg/100g
Riboflavin (vit B2)	7-9 mg/100g

#### Heavy Metals

Lead (Pb)	<0.05 mg/kg
Cadmium (Cd)	<0.05 mg/kg
Arsenic (As)	<0.05 mg/kg
Mercury (Hg)	<0.02 mg/kg

This is a Nutritional Supplement and not a replacement for medical treatment.

### SCIENTIFIC STUDY REFERENCES

Effect of the Administration of Cordyceps militaris Mycelium Extract on Blood Markers for Anemia in Long-Distance Runners., Nakamura A, Shinozaki E, Suzuki Y, Santa K, Kumazawa Y, Kobayashi F, Nagaoka I, Koikawa N. Nutrients. 2024; 16(12):1835.

Chronic supplementation of a mushroom blend on oxygen kinetics, peak power, and time to exhaustion., Hirsch, K. R., Mock, M. G., Roelofs, E. J., Trexler, E. T., & Smith-Ryan, A. E. Journal of the International Society of Sports Nutrition. (2015).

Cordyceps militaris Improves Tolerance to High-Intensity Exercise After Acute and Chronic Supplementation., Hirsch, K. R., Smith-Ryan, A. E., Roelofs, E. J., Trexler, E. T., & Mock, M. G. Journal of Dietary Supplements. (2016). 14(1), 42-53.

# Lipid Modifying Agent



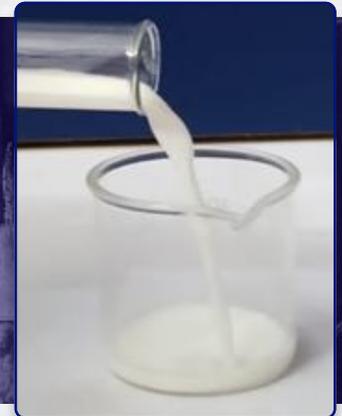
# Policosanol

Nano- Concentrate. (Water Soluble)

## Body's Lipid Manager

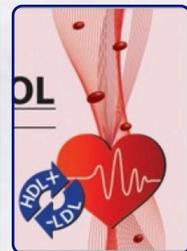
Small size of nanoparticles enables them to pass through natural biological barriers, such as the intestinal epithelia, facilitating better entry into the body and target sites.

Policosanol is a mixture of long-chain aliphatic alcohols ranging from 24 to 34 carbon atoms. The major components of policosanol mixture are octacosanol, triacontanol, hexacosanol, and Heptacosanol. The common source of isolating policosanol is sugar cane wax (Saccharum officinarum L.), rice bran, oats, barley, and bees wax. Policosanol is a Hydrophobic Molecule that prevents this Novel molecule from easy Bio-absorption thus limits its actual functional effect in the body, Helixion Biosciences has developed this Nano Extract of Policosanol which is 100% water soluble & thus can be used in lot of liquid therapeutic & Nutraceutical products. Policosanol has multiple health improving properties, including the lowering of lipids, anti-aging, tissue regeneration, cardiovascular protection, and protection against diabetes, hypercholesterolemia, Parkinson's disease and inflammation. Policosanol belongs to the class of drugs called lipid modifying agents. It acts by decreasing the cholesterol production in liver thereby reducing the bad cholesterol (low-density lipoprotein or LDL) level in the blood.



### Benefits of Policosanol Supplement

-  Support Healthy Triglyceride
-  Good for Cholesterol
-  Healthy Circulatory
-  Healthy Heart



### WHO SHOULD CONSUME POLICOSANOL

Individuals Looking for Natural Heart Health Support	Athletes and Energetic Individuals
People use policosanol to reduce symptoms of intermittent claudication (leg pain due to poor circulation).	Policosanol supplementation helped reduce blood glucose levels.
People who experience muscle pain or liver issues.	People with Mild to Moderate High Cholesterol can consume policosanol.

### PACKAGING/ STORAGE/ SHELF LIFE

<b>Packaging:</b> 5kg Aluminium can/ Packed under Sterilized condition	<b>Storage Condition:</b> Nutritional & Food Industries, Medicinal & Pharmaceutical Uses, Water Treatment, Agriculture industries.
<b>Shelf Life:</b> 36 months if stored in specified storage conditions.	

### APPLICATION DETAILS

S.No.	Various Applications	Main Claims Markers for Recommended Applications	Recommended Dosage / Bulk Batch ( For the Manufacturer of a Consumer brand)	Effective Dosage / Serving ( For the Ultimate Consumer)	Recommended Dosage / Day		
					For Adults	For Teenagers	For Kids (5-10 yrs)
1.	Supports Heart Health (Spray / Nanoshot per 5 mL)	Total policosanol content - 0.45%	Considering Bulk Batch of 1000 liters , around 550 liters of This Nano-Policosanol ( Water Soluble) to be added to produce a batch of a Bulk Product with effective 0.25% of Policosanol concentration	Spray - 0.25% Policosanol / mL NanoShot - 0.25% Policosanol / 5mL	Once Daily	Once Daily	NA

# Policosanol

Nano- Concentrate. (Water Soluble)

## Body's Lipid Manager

### NUTRITIONAL VALUE

#### Sensory Data

Appearance	Liquid
Colour	White
Odour	Characteristic

#### Microbiological Profile

Total Viable aerobic count	<100cfu/g
Total Fungal count	<10cfu/g

This is a Nutritional Supplement and not a replacement for medical treatment.

#### Functional Bioactive

Heptacosanol	140-150 mcg/g
Hexacosanol	210-220 mcg/g
Octacosanol	2900-3000 mcg/g
Triacotanol	1080-1100 mcg/g
<b>Total Policosanols</b>	<b>4330-4470 mcg/g</b>

#### Heavy Metals

Lead (Pb)	NMT 2 ppm
Cadmium (Cd)	NMT 1 ppm
Arsenic (As)	NMT 2 ppm
Mercury (Hg)	NMT 0.1 ppm

Claims to lower Cholestrol

Claims to reduce blood glucose

May inhibit Blood Clot formation



### SCIENTIFIC STUDY REFERENCES

Efficacy and Safety of Policosanol (Sugarcane Wax Alcohols) 20 mg/ Day in Cuban Prehypertensive Patients: A Randomized, Double-Blind, Multicentre Study.,  
Revuelta M, Jimenez Chiquet A, Valdes Y, et al.

A 8-week, randomized, double-blind, placebo-controlled human trial to evaluate the efficacy and safety of Saccharum officinarum wax alcohols (Policosanol) on improvement of blood cholesterol.  
H.-R. Kim, Y.-S. Kim, P. Antonisamy et al.

Effects of Policosanol in Older Patients With Type II Hypercholesterolemia and High Coronary Risk.  
Gladys Castaño, Rosa Más, J.C. Fernández, J. Illnait, Lilia Fernández, Estrella Alvarez.

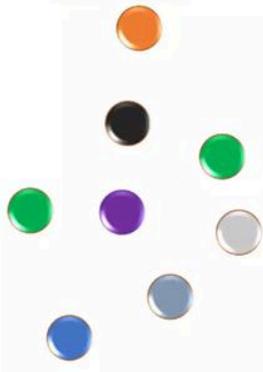
Effects of Policosanol in Patients With Metabolic Syndrome: A Six-Month Study".  
Arteche-Hidalgo, Liuba, Julio Cesar Fernandez-Travieso, Noysbel Suarez-Camejo, et al.

# Plant Base/ Natural Peptides

Enriched with Nanopeptides, 2-3X Bioabsorption hence super enhanced functional delivery



Individual Amino Acids



Peptide, a chain of amino acids



Protein, a longer amino acid chain with secondary structure



Helixion's  
Nanopeptide Size  
Range - 0.5 KDA to  
40KDA

# Hydrolyzed Rice Peptide

Liquid/Powder

Peptide for people sensitive to Gluten/ Soy/ Dairy

Peptides have better absorption than proteins because they are smaller chains of amino acids, allowing them to be absorbed more quickly and efficiently by the body. This makes pre-digested peptides ideal for situations requiring fast nutrient delivery, such as post-workout recovery or after any high energy work. They may provide pro-aging support, anti-inflammatory, or muscle-building properties.

Hydrolyzed rice proteins (peptides) derived from *Oryza Sativa* is a premium, plant-derived protein intended for application in food and dietary supplements. This is a Superior protein source where "Bigger Protein Molecules" are broken down enzymatically in much smaller size "Peptides" of the size range 0.5kDa to 42kDa, thus helps in "Enhanced Bio-absorption / Bio-Availability" than regular Rice Protein Powder & also "100% Water solubility" which makes it very easy in application & all sorts of fortification in fortified foods/Beverages/Health Drinks/Fruit Juices/Milk etc. Their bioavailability also allows them to serve as a functional ingredient for enhancing the nutritional content of different food products. This vegan peptide source is a good substitute for animal-based proteins because of its rich amino acid profile and high digestibility.

## HEALTH BENEFITS

<p><b>Easily absorbable protein:</b> The hydrolysis method reduces rice protein into smaller, more readily absorbed peptides and amino acids. It is a great source of protein for muscle development and recovery, particularly for individuals with digestive sensitivities.</p>	<p><b>Allergy-safe:</b> Hydrolyzed rice protein serves as a frequent component in infant formulas, providing a hypoallergenic option for infants with sensitivities to cow's milk.</p>	<p><b>Antioxidant characteristics:</b> Studies show that hydrolyzed rice protein possesses antioxidant properties, aiding in the protection of cells from free radical damage.</p>	<p><b>Plant-Based Nutrition:</b> It acts as a significant source of plant-based protein for those adhering to vegan or vegetarian, it provides a complete amino acid profile to meet complete nutritional requirements.</p>
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Gluten Free

Hypo-Allergenic  
(Great option for people sensitive to Dairy & Soya)

Super Enhanced Digestibility (> 90%) & hence Excellent Bio-Absorption

## Key amino acid concentrate & their benefits

S.No	Amino Acid	Actual amino acid content as per the NABL accredited lab Rice Peptide (g/100g)	Health benefits
1.	Alanine	3.07	<ul style="list-style-type: none"> <li>Improved athletic performance</li> <li>It aids in building and repairing muscle tissue</li> <li>Acting as an energy source for muscles</li> <li>It helps maintain normal cholesterol levels and can protect cells from oxidative damage.</li> <li>It assists the liver in detoxifying the blood</li> </ul>
2.	Cysteine+Cystine	1.06	<ul style="list-style-type: none"> <li>Cysteine is the precursors to the powerful antioxidant glutathione (GSH).</li> <li>Helps the body fight chronic inflammation and oxidative stress</li> <li>Disulfide bonds formed by two cysteine molecules provide strength, rigidity, and structural stability to skin tissues</li> </ul>
3.	Glutamic Acid	10.4	<ul style="list-style-type: none"> <li>Glutamic acid is crucial for muscle protein synthesis, helping to build and repair muscle tissue, especially after exercise.</li> <li>Glutamic acid may have an independent effect on lowering blood pressure.</li> <li>Glutamic acid supporting the function of immune cells.</li> </ul>
4.	Glycine	2.54	<ul style="list-style-type: none"> <li>It protects cells against oxidative damage caused by free radicals.</li> <li>Reduced stress and anxiety.</li> <li>Improved sleep quality</li> <li>Glycine plays a vital role for repairing and regenerating body tissues</li> </ul>
5.	Leucine	3.74	<ul style="list-style-type: none"> <li>It can improve recovery and enhance endurance performance, especially when combined with resistance training.</li> <li>Consuming leucine can help increase lean muscle mass and strength.</li> <li>Helping with blood sugar control</li> </ul>



## PRODUCT AVAILABILITY/ PACKAGING/STORAGE/ SHELF LIFE

### Storage Condition:

Store in cool and dry place in original packing. Avoid exposure to extreme conditions.

### Product Availability:

Product available in both powder and liquid form

### Packaging:

Powder : In 25 kg Board/ PVC Drums with Liners.  
Liquid : In 25 liter HDPE/ Aluminium Cans.

### Shelf Life:

Powder : 36 Months from the Date of Manufacturing.  
Liquid : 18 months in company sealed Jars, once opened must be used Within 5-7 days.

**Note : Please ensure that the Capping is air tight for each can immediately post usage.**

## APPLICATION DETAILS

S.No.	Various Applications	Main Claims Markers for Recommended Applications	Recommended Dosage / Bulk Batch (For the Manufacturer of a Consumer brand)	Effective Dosage / Serving (For the Ultimate Consumer)	Recommended Dosage / Day		
					For Adults	For Teenagers	For Kids (5-10 yrs)
1.	Milk Fortification*	Protein ( In the Form Peptides ) & Essential Amino Acids	Based on the Min Protein content in Powder form & also in Liquid form, the formulator can decide on the final dosage per batch keeping in tandem with the desired protein content per consumer pack.	Considering 100ml of these drinks that a consumer takes ( for the Age group as mentioned ), then the same shall have these A Min. Peptide Concentration ranging from 15gms to 40gms of Powder form & 100-200ml of Liquid form ( for Age wise break up pl. see the column in Right) - Ref : for non-pediatric populations (0.8 g/kg bw/d)	40-50 Gms/Day	40-50 Gms/Day	15-19 Gms/Day
2.	Fruit Juice Fortification						
3.	Plant Based Health Drinks						
4.	Fortification of Protein Drinks with Plant based Nutrition						
5.	Fortification of Child Focused Drinks to counter Child Malnutrition						
6.	For Happy Morning Tea/ Coffee & / or Morning Milk or Smoothies						
7.	For Plant based energy Drinks / Drinks for Athletes						

The American College of Sports Medicine (ACSM), physically active individuals should consume between 1.2 and 2.0 g/kg body weight per day to support metabolic adaptation, repair, remodeling, and protein turnover.

# Hydrolyzed Rice Peptide

Liquid/Powder

Peptide for people sensitive to Gluten/ Soy/ Dairy

This is a Nutritional Supplement and not a replacement for medical treatment.



## NUTRITIONAL VALUE ( Rice Powder)

Sensory Data		Nutritional Data	
Appearance	Powder	Protein	50-55% by wt.
Colour	Creamish	Ash Content	0.5-0.7 % by wt.
Flavour and Odour	Characteristic	Moisture	2.5-4.0 % by wt.
Taste	Characteristic	Fat content	0.2-0.4 % by wt.
<b>Amino Acid Profile</b>		Dietary Fiber	3.0-4.0 % by wt.
Alanine	2-4 g/100g	Insoluble Dietary Fiber	2.0-3.0 % by wt.
Arginine	0.5-0.7 g/100g	Soluble Dietary Fiber	0.4-0.8 % by wt.
Aspartic Acid	4-5 g/100g		
Cysteine+Cystine	1-2 g/100g		
Glutamic Acid	9-11 g/100g		
Glycine	2-3 g/100g		
Histidine	0.8-1 g/100g		
Isoleucine	1-3 g/100g		
Leucine	3-5 g/100g		
Lysine	0.7-0.9 g/100g		
Methionine	1-2 g/100g		
Phenylalanine	2-3 g/100g		
Proline	2-3 g/100g		
Methionine	1-2 g/100g		
Threonine	0.5-0.7 g/100g		
Tyrosine	2-3 g/100g		
Valine	2-3 g/100g		

## NUTRITIONAL VALUE ( Rice Liquid)

Sensory Data		Nutritional Data	
Appearance	Liquid	Protein	23-27 g/100ml
Colour	Brown	Ash Content	8-10 g/100ml
Flavour and Odour	Characteristic	Moisture	50-51 g/100ml
<b>Amino Acid Profile</b>		Carbohydrate	14-15 g/100ml
Alanine	2-4 g/100g	Soluble Dietary Fiber	0.4-0.5 g/100ml
Arginine	0.5-0.7 g/100g		
Aspartic Acid	4-5 g/100g		
Cysteine+Cystine	1-2 g/100g		
Glutamic Acid	9-11 g/100g		
Glycine	2-3 g/100g		
Histidine	0.8-1 g/100g		
Isoleucine	1-3 g/100g		
Leucine	3-5 g/100g		
Lysine	0.7-0.9 g/100g		
Methionine	1-2 g/100g		
Phenylalanine	2-3 g/100g		
Proline	2-3 g/100g		
Serine	1-2 g/100g		
Threonine	0.5-0.7 g/100g		
Tyrosine	2-3 g/100g		
Valine	2-3 g/100g		

## SCIENTIFIC STUDY REFERENCES

Rice Bran Supplement Containing A Functional Substance, the Novel Peptide Leu-Arg-Ala, has Anti-Hypertensive Effects: A Double-Blind, Randomized, Placebo-Controlled Study. gawa Y, Shobako N, Fukuhara I, Satoh H, Kobayashi E, Kusakari T, Suwa M, Matsumoto M, Ishikado A. *Nutrients*. 2019 Mar 28;11(4):726. doi: 10.3390/nu11040726.

Effect of Rice (Oryza sativa L.) Ceramides Supplementation on Improving Skin Barrier Functions and Depigmentation: An Open-Label Prospective Study. , Leo, T.K., Tan, E.S.S., Amiri, F., Rehman, N.; Ng, E.S.C.; Tan, C.K. *Nutrients* 2022, 14, 2737.

Growth, Tolerance and Biochemical Measures in Healthy Infants Fed a Partially Hydrolyzed Rice Protein-Based Formula: A Randomized, Blinded, Prospective Trial. , John B. Lasekan Ph.D., Winston W. K. Koo M.B.B.S., F.A.C.N., Jocelyn Walters M.S., Michael Neylan M.S. & Steven Luebbers M.S. (2006) , *Journal of the American College of Nutrition*, 25:1, 12-19

Effects of daily 24-gram doses of rice or whey protein on resistance training adaptations in trained males., Moon JM, Ratiff KM, Blumkaitis JC, Hartly PS, Zabriskie HA, Stecker RA, Currier BS, Jagim AR, Jäger R, Purpura M, Kerksick CM. *J Int Soc Sports Nutr*. 2020 Dec 1;17(1):60.

The effects of 8 weeks of whey or rice protein supplementation on body composition and exercise performance.,Joy, J.M., Lowery, R.P., Wilson, J.M. et al. *Nutr J* 12, 86 (2013). <https://doi.org/10.1186/1475-2891-12-86>

# Hydrolyzed Keratin Peptide

Peptides have better absorption than proteins because they are smaller chains of amino acids, allowing them to be absorbed more quickly and efficiently by the body. This makes pre-digested peptides ideal for situations requiring fast nutrient delivery, thus in this case helps in supporting hair/ nail and skin health.

Liquid/Powder

Peptides for Cosmeceuticals

Hydrolyzed keratin proteins (peptides) serve as a dietary supplement component in cosmeceuticals for "beauty from within" formulations, mainly aimed at enhancing the health and look of hair, skin, and nails. Keratin peptides is a Superior protein source where insoluble large Protein Molecules are broken down enzymatically in much smaller in size "Peptides" of the size range 0.5kDa to 30kDa, thus helps in "Enhanced Bio-absorption /Bio-Availability" than higher molecular weight Protein powder & also "100% Water solubility which makes it very easy in application. The rich amino acid profile further strengthens the integrity of the skin's barrier. Smaller Hydrolyzed keratin peptides, making them digestible, bioavailable peptides to penetrate the hair shaft and skin's outer layer to repair damage, increase strength and improve elasticity.

## HEALTH BENEFITS

### Benefits of Hydrolyzed Keratin Supplements for Hair, Nails, and Skin:

Hydrolyzed keratin supplements strengthen hair, minimize frizz and split ends, improve nail health by preventing brittleness, and enhance skin elasticity, reducing wrinkles and age spots.



### PRODUCT AVAILABILITY/ PACKAGING/STORAGE/ SHELF LIFE

#### Product Availability:

Product available in both liquid/ powder form.

#### Storage Condition:

Store in cool and dry place in original packing. Avoid exposure to extreme conditions.

#### Packaging:

Powder : In 25 kg Board/ PVC Drums with Liners.  
Liquid : In 25 liter HDPE/ Aluminium Cans.

#### Shelf Life:

Powder : 36 Months from the Date of Manufacturing.  
Liquid : 18 months in company sealed Jars, once opened must be used Within 5-7 days.

#### Note :

Pl ensure that the Capping is air tight for each can immediately post usage.

Bioreactivity

Amongst World's few 100% water soluble Keratin Peptides

Bioavailability

## Key amino acid concentrate & their benefits

S.No	Amino Acid	Actual amino acid content as per the NABL accredited lab Rice Peptide (g/100g)	Health benefits
1.	Alanine	3.21	<ul style="list-style-type: none"> <li>Alanine is used in skin care products to improve hydration</li> <li>In hair care it can support the formation of proteins that strengthen hair fibers</li> </ul>
2.	Cysteine+Cystine	2.24	<ul style="list-style-type: none"> <li>It help smooth the hair cuticle, creating a protective shield that reduces frizz and makes hair more manageable.</li> <li>By smoothing the hair shaft, cysteine and cystine allow light to reflect more evenly, giving hair a glossier, healthier appearance.</li> <li>Cysteine and cystine are building blocks of keratin</li> <li>Cysteine helps repair damaged hair by rebuilding the keratin structure, leading to healthier, stronger strands.</li> <li>Disulfide bonds formed by two cysteine molecules provide strength, rigidity, and structural stability to skin tissues</li> </ul>
3.	Glutamic Acid	8.57	<ul style="list-style-type: none"> <li>Replenish the hair shaft, making it stronger and less prone to breakage.</li> <li>Glutamic acid is a component of the skin's natural moisturizing factors and can contribute to skin barrier repair and hydration</li> <li>Glutamic acid is a humectant that attracts and retains moisture, leading to improved hydration</li> <li>It protect cells against oxidative damage caused by free radicals</li> </ul>
4.	Glycine	7.93	<ul style="list-style-type: none"> <li>It protect cells against oxidative damage caused by free radicals.</li> <li>Reduced stress and anxiety.</li> <li>Improved sleep quality</li> <li>Glycine play a vital role for repairing and regenerating body tissues</li> </ul>
5.	Leucine	6.01	<ul style="list-style-type: none"> <li>It can improve recovery and enhance endurance performance, especially when combined with resistance training.</li> <li>Consuming leucine can help increase lean muscle mass and strength.</li> <li>Helping with blood sugar control</li> </ul>
6.	Valine	4.63	<ul style="list-style-type: none"> <li>Valine is one of the 18 amino acids that combine to form keratin, the primary protein in hair.</li> <li>Body needs sufficient valine to create enough keratin for strong hair shafts.</li> <li>Valine provides vital nutrients to hair follicles, helping to stimulate and support the overall hair growth cycle</li> <li>Valine plays a role in keeping the scalp in good condition.</li> </ul>

## APPLICATION DETAILS

S.No.	Various Applications	Main Claims Markers for Recommended Applications	Recommended Dosage / Bulk Batch (For the Manufacturer of a Consumer brand)	Effective Dosage / Serving (For the Ultimate Consumer)	Recommended Dosage / Day (For Adults (18 yrs and above)
1.	Milk Fortification*	Protein ( In the Form Peptides )& Essential Amino Acids	Based on the Min Protein content in Powder form & also in Liquid form, the formulator can decide on the final dosage per batch keeping in tandem with the desired protein content per consumer pack.	Considering a min 100ml of these drinks that a consumer takes /day ( for the Age group as mentioned ) & he/she want to use these as a medium to consume daily Keratin requirement , then the same shall have these Keratin Peptide Concentration ranging from effectively 400mg to 500mg .	For adults , the effective daily dosage of hydrolyzed Keratin peptides generally ranges from 400-500mg for the Powder form & around 1.50ml to 2.50ml for the Liquid form , depending on individual health goals such as skin improvement, Hair & Nail health, maintain the Lining of Internal organs joint support etc
2.	Fruit Juice Fortification				
3.	Plant Based Health Drinks				
4.	Fortification of Protein Drinks with Plant based Nutrition				
5.	For Happy Morning Tea/ Coffee & / or Morning Milk or Smoothies				
6.	For Happy Morning Tea/ Coffee & / or Morning Milk or Smoothies				

# Hydrolyzed Keratin Peptide

Liquid/Powder

Peptides for Cosmeceuticals

This is a Nutritional Supplement and not a replacement for medical treatment.



## NUTRITIONAL VALUE ( Keratin Powder)

Sensory Data		Nutritional Data	
Appearance	Powder	Protein	80-85% by wt.
Colour	Creamish	Ash Content	3.0-4.0 % by wt.
Flavour and Odour	Characteristic	Moisture	5.0-6.0 % by wt.

### Amino Acid Profile

Alanine	3-4 g/100g
Arginine	2-3 g/100g
Aspartic Acid	4-5 g/100g
Cysteine+Cystine	2-3 g/100g
Glutamic Acid	8-9 g/100g
Glycine	7-8 g/100g
Histidine	0.2-0.6 g/100g
Isoleucine	2-4 g/100g
Leucine	4-5 g/100g
Lysine	0.4-0.6 g/100g
Methionine	0.2-0.4 g/100g
Phenylalanine	3-4 g/100g
Proline	7-9 g/100g
Serine	5-7 g/100g
Threonine	1-3 g/100g
Tyrosine	2-3 g/100g
Valine	4-5 g/100g

## NUTRITIONAL VALUE ( Keratin Liquid)

Sensory Data		Nutritional Data	
Appearance	Liquid	Protein	35-40% by wt.
Colour	Brown	Ash Content	0.5-1% by wt.
Flavour and Odour	Characteristic	Moisture	

### Amino Acid Profile

Alanine	3-4 g/100g
Arginine	2-3 g/100g
Aspartic Acid	4-5 g/100g
Cysteine+Cystine	2-3 g/100g
Glutamic Acid	8-9 g/100g
Glycine	7-8 g/100g
Histidine	0.2-0.6 g/100g
Isoleucine	2-4 g/100g
Leucine	4-5 g/100g
Lysine	0.4-0.6 g/100g
Methionine	0.2-0.4 g/100g
Phenylalanine	3-4 g/100g
Proline	7-9 g/100g
Serine	5-7 g/100g
Threonine	1-3 g/100g
Tyrosine	2-3 g/100g
Valine	4-5 g/100g

## SCIENTIFIC STUDY REFERENCES

The Effects of an Oral Supplementation of a Natural Keratin Hydrolysate on Skin Aging: A Randomized, Double-Blind, Placebo-Controlled Clinical Study in Healthy Women., Tursi F, Nobile V, Cestone E, De Ponti I, Lepoudere A, Sergheraert R, Soulard JP. - J Cosmet Dermatol. 2025 Jan;24(1):e16626. doi: 10.1111/jocd.16626. Epub 2024 Oct 4

The effects of the oral supplementation with a natural keratin hydrolysate (Kera-Diet®) on hair and nails: Randomized, placebo and benchmark-controlled clinical trial on healthy females., Nobile V, Tursi F, Cestone E, Sergheraert R, Duperray J, Trichol Cosmetol Open J. 2021; 4(1): 7-16.

**VISION**

As responsible members of the global health /Personal care community, we focus on:

- The development and manufacture of safe and reliable biomolecule ingredients and phytochemicals through unique, creative, and fascinating future technology.
- The development and application of products and technologies with a focus on Personal care, Health and Nutrition and improving quality of life for consumers while respecting our environment.

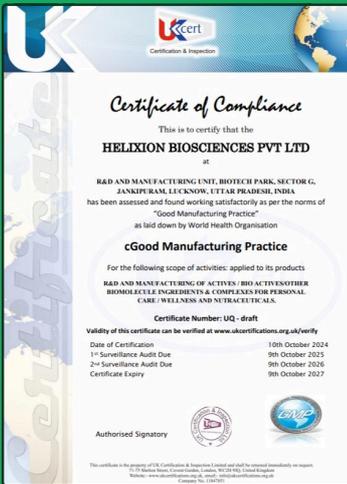
**MISSION**

Our mission is to discover, develop and commercialize small & large Bio-molecules extracted from biological origin/ Food By-Products, with key focus on a safe & enhanced bio-availability of such ingredients which can have a precise & desired optimal delivery in terms of it's functional benefits to a particular product formulation in Healthcare, Personal care, nutraceuticals and functional foods sector.

**VALUES**

- **Quality** – Delivering products and services of unmatched quality that exceed all expectations.
- **Customer Focus** – Driven by a commitment to fulfill our customers' needs and goals.
- **Professionalism** – Offering exceptional scientific, technical, and business expertise to serve our stakeholders.
- **Integrity** – Upholding the highest ethical standards in every aspect of our work.
- **Performance** – Surpassing commitments through innovative solutions and products.
- **Environmental Responsibility** – Ensuring sustainable and competitive manufacturing practices.

**CERTIFICATIONS**



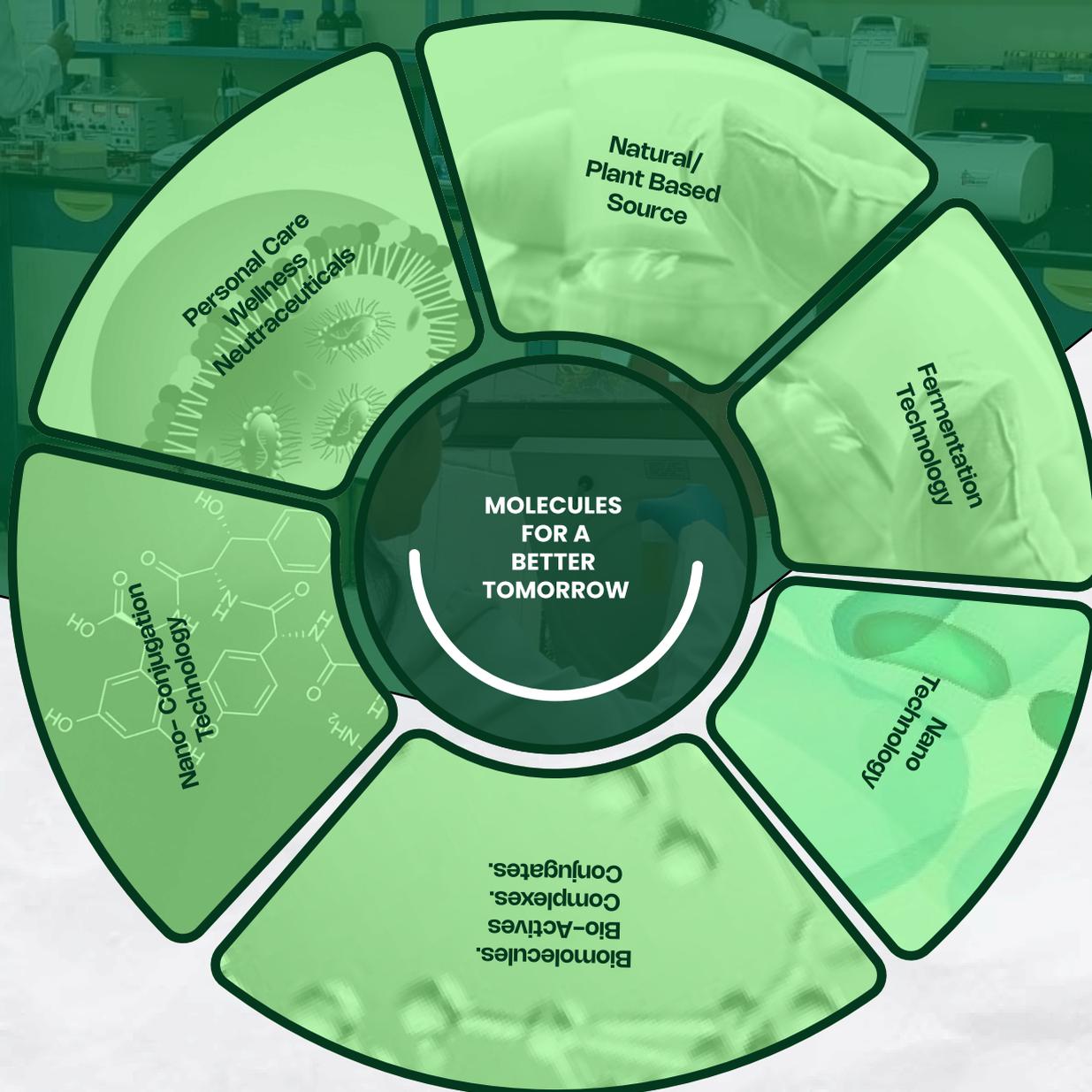
As a Part of our Core Values where we are committed to the Delivery of Products with Exceptional quality, our entire Operations Team works completely in Tandem from Sourcing to Process to Product and Packaging under strong Quality Management Systems across each functions which is now further validated where our Process and Products has been now certified with Current Good Manufacturing Practices (cGMP) as laid down by World Health Organization (WHO). We are also now HALAL Certified.

**MOLECULES FOR A BETTER TOMORROW  
YOU DEMAND...WE DEVELOP...WE DELIVER**

**R&D and Manufacturing- A glimpse**



*Journey of Innovation Continues as our Scientists Strive Hard to get New / Innovative Bio Molecules / Actives & Other Complexes for our Esteemed Customers who make engaging & Functionally Advanced formulations for the end users ...*



**Helixion Biosciences is in Technical and Manufacturing Partnership with Swiss Garniers Biotech Private Limited.**



**R&D & PILOT MANUFACTURING CENTER:**  
BIOTECH PARK, JANKIPURAM,  
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