

NOURISHING LIFE.  
PRESERVING TIME.



### ► Shandong Runhan Biotechnology Co Ltd

Rolvanferm is a comprehensive biotechnology company integrating research, production, marketing, international trade.

Rolvanferm™, driven by synthetic biology technology, is committed to providing high-quality functional ingredients and innovative solutions to global customers in personal care and life health sectors, thereby bringing beautiful and delightful new life experiences to humanity.

#### ✓ Industry Recognition

Member of China Association of Fragrance Flavour and Cosmetic Industries, Member of China Biotech Fermentation Industry Association, Executive Member of Jiangnan University, Member of Shandong Cosmetic Industry Association, etc

#### ✓ Source Manufacturer

A large-scale automated production line with an annual production capacity of 5,000 tons

#### ✓ Authoritative Certifications

We have obtained several international certifications, including ISO22000, ISO9001, KOSHER, HALAL, COSMOS, and more

#### ✓ Plant-Based Ingredients

We specialize in the production of natural plant-based ingredients to mitigate issues such as nuclear wastewater pollution and chitosan allergies

#### ✓ Green Fermentation

We are committed to green fermentation, revolutionizing traditional high-pollution processes

### ► Service System

#### 🕒 Response Speed >>>>

We stand by you 24/7, providing rapid responses and giving our full dedication.

With automated production lines and efficient processes, we ensure lightning-fast deliveries while providing end-to-end tracking.

#### 🚚 Delivery Speed >>>>



#### <<<< Product Quality 🛡️

Attention to detail, where quality is our mission. We maintain tradition while fostering innovation, pursuing excellence with craftsmanship every step of the way.

With utmost sincerity and trustworthiness, we offer tailored solutions through open communication, and we are committed to taking action to serve you better

#### <<<< Service Quality 🧪



# Rolvanferm



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# Acetyl Glucosamine

cosmetic grade



Nourishing Life Preserving Time

# ▶ ROLVANFERM™ ACETYL GLUCOSAMINE

N-Acetylglucosamine, also known as acetyl glucosamine in skincare area, is included in the International Nomenclature Cosmetic Ingredient (INCI) for cosmetic raw materials, as well as the 'Catalog of Cosmetic Raw Materials in Use (2021 edition)' published by the National Medical Products Administration.

Rolvanferm™ Acetyl Glucosamine, co-developed by Runhan Biotechnology and Jiangnan University, is a high-quality multifunctional moisturizing agent known for its excellent skin hydration capabilities due to its small molecular size and superior transdermal absorption.

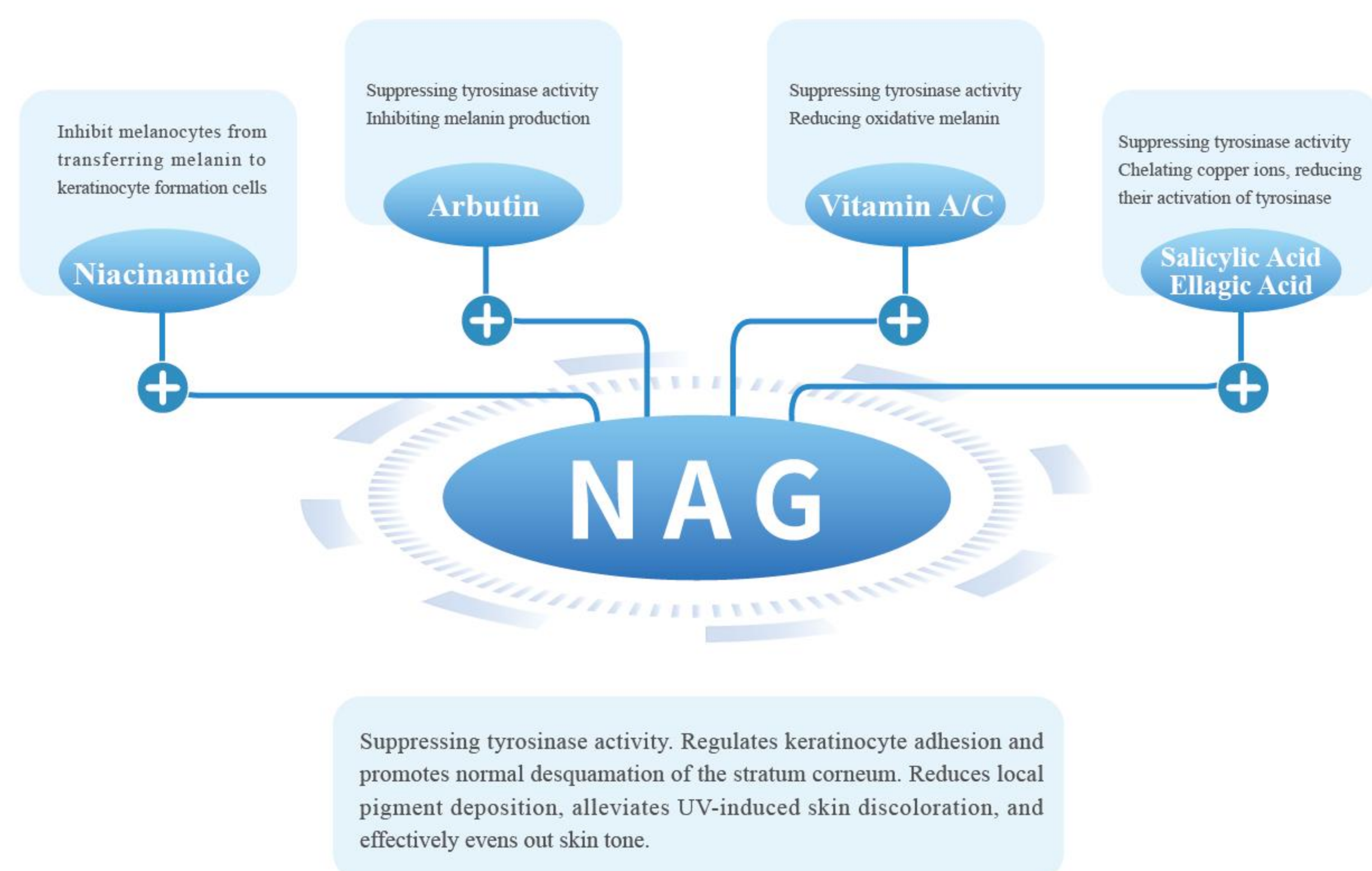
Rolvanferm™ Acetyl Glucosamine is the first of its kind in China to achieve international certifications such as EU COSMOS, KOSHER, HALAL, among others. The product is known for its safety, quality, traceability, and production scalability. It offers a green and sustainable supply chain solution that isn't constrained by resources.

## 📊 Market Analysis

The use of Acetyl Glucosamine in international brands is highly mature and it is considered a classic moisturizing ingredient in many high-end skincare products. As the market evolves, Acetyl Glucosamine is gradually finding its way into high-end beauty and premium haircare products.

Rolvanferm™ Acetyl Glucosamine boasts strong stability and can be easily combined with various ingredients like niacinamide and arbutin. It finds wide applications in the formulations of creams, lotions, face masks, serums, and other skincare products.

## 🔗 Synergistic Effect

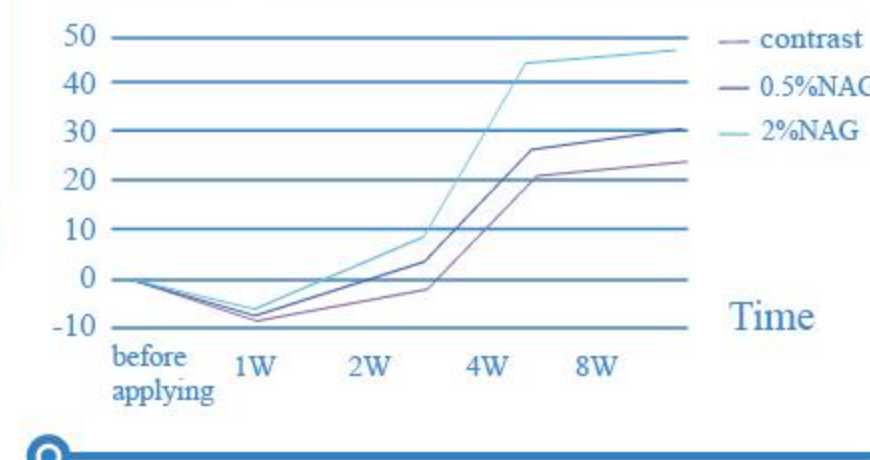


## 🔍 Product Features

Acetyl Glucosamine exhibits excellent transdermal absorption and enhances skin's hydration function, making it a high-quality moisturizer.

high-quality moisturizer

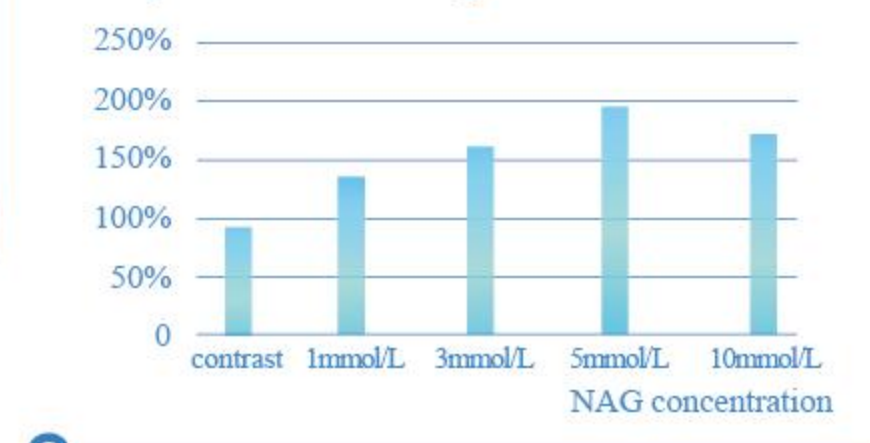
increase rate in skin moisture content



Acetyl Glucosamine can enhance the activity of hyaluronic acid synthase (HAS), promote the synthesis of hyaluronic acid, and increase the hyaluronic acid content in the skin.

stimulates the synthesis of hyaluronic acid

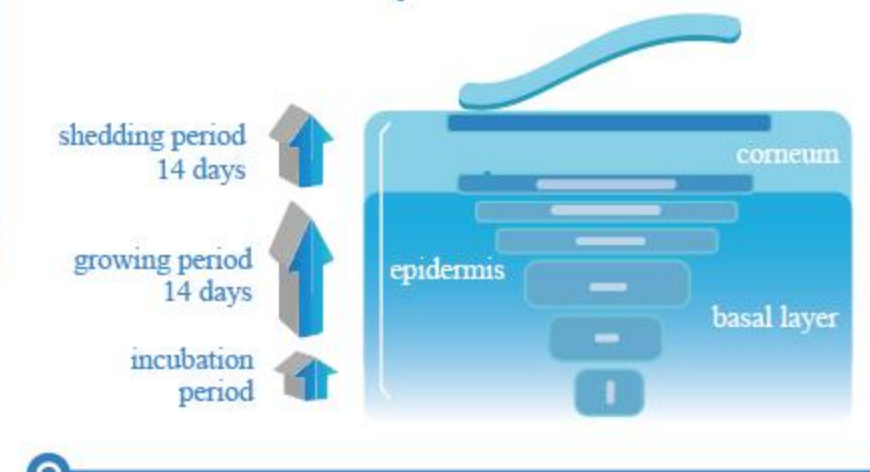
hyaluronic acid production rate



Acetyl Glucosamine can promote the normalization of glycoprotein metabolism on the surface of keratinocytes, allowing the outermost layer of the stratum corneum to naturally exfoliate, thus playing a role in natural exfoliation regulation.

natural exfoliation regulation

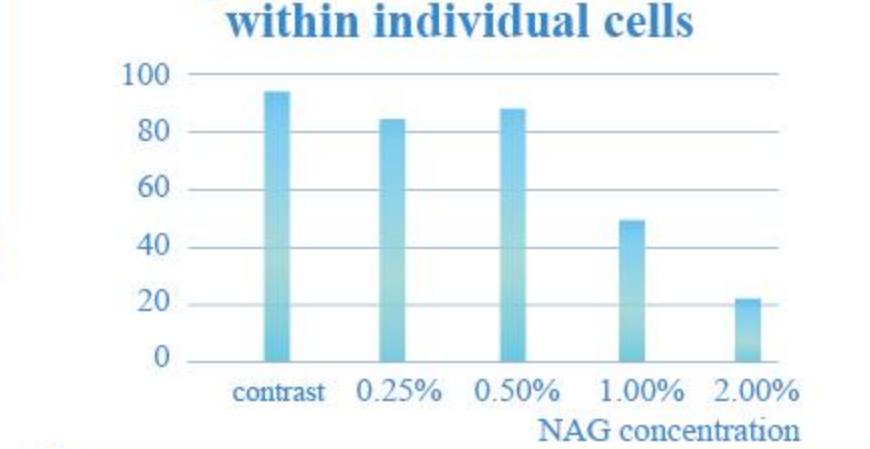
keratinocyte metabolism



Acetyl Glucosamine can inhibit tyrosinase maturation, reduce melanin formation, fade skin blemishes, and effectively even out skin tone.

reduce melanin formation

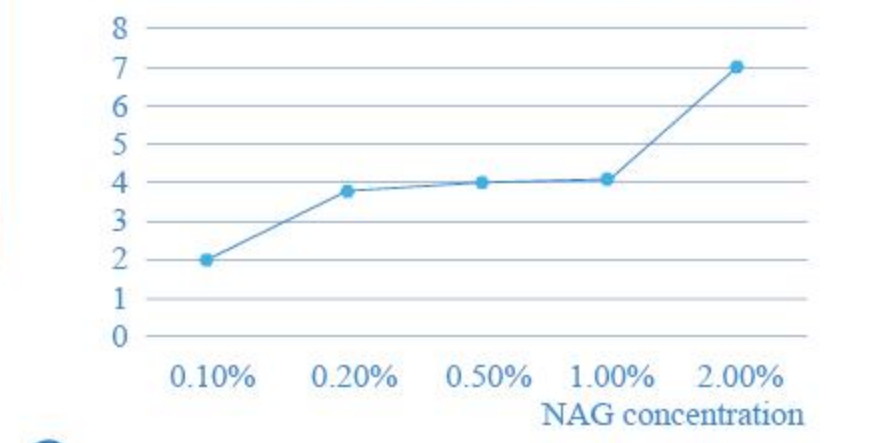
the impact of NAG on melanin levels within individual cells



Acetyl Glucosamine can reduce the damage of free radicals to the skin, providing anti-wrinkle and anti-aging benefits while enhancing the skin's tissue repair capacity.

scavenging free radical

DPPH free radical clearance rate



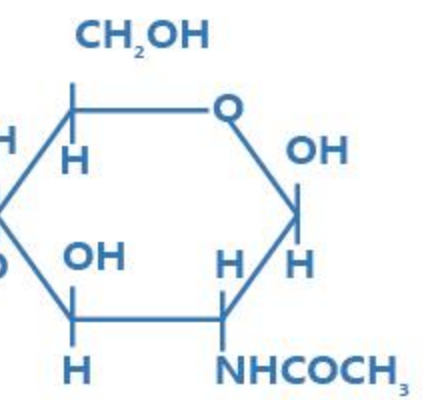
# ROLVANFERM™ ACETYL GLUCOSAMINE (cosmetic grade) Product Specifications

### Alternative Names

Chemical Name: N-Acetylglucosamine  
English Name: N Acetyl Glucosamine  
INCI Name: Acetyl Glucosamine

### Product Description

CAS: 10036-64-3  
Molecular Formula: C<sub>8</sub>H<sub>15</sub>NO<sub>6</sub>  
Molecular Weight: 221.21



### Usage Instructions

Add directly to the aqueous phase, it has high solubility, and thorough dissolution can be achieved through stirring.

### Recommended Usage Amount

0.5%~2%

### Product Parameters

Physical properties		Microbiological criteria	
Color	White	Total bacteria count	≤1000cfu/g
State	Uniform crystalline powder	Yeast and molds	≤100cfu/g
Odor	No specific odor	Escherichia coli	Negative/g
Water solubility	Solution is colorless, transparent, and free from suspended particles	Salmonella	Negative/g

### Physical and chemical parameters

Content	98.0%~102.0%	Transmittance	≥97.5%
Optical rotation	+39.0°~+43.0°	Whiteness determination	≥98.00%
Melting point	196.0°C~205.0°C	Chloride content	≤0.1%
pH value	6.0~8.0	Sulfate content	≤0.1%
Loss on drying	≤0.5%	Lead content	≤10ppm
Ignition residue	≤0.05%	Iron content	≤10ppm
Conductivity	≤4.50us/cm	Arsenic content	≤0.5ppm

### Label

The product packaging label should comply with the requirements of GB7718 and the National Quality Inspection Administration's No. 123 (2009) "Food Labeling Management Regulations." Packaging and storage markings should conform to the provisions of GB/T191-2008. The product should clearly indicate product name, batch number, production date, and other traceability information.

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### Storage

This product should be sealed in its original packaging and stored at room temperature or under refrigeration conditions. It should not be stored together with toxic, harmful, odorous, volatile, or corrosive substances.

### Shelf Life

Under normal temperature conditions, the unopened product has a shelf life of 24 months. After opening, it should be used as soon as possible.