

CERAMIDE NP

神经酰胺NP (CAS No.: 100403-19-8)

XUFAN BIOTECH

The stratum corneum of skin mainly contains 12 different subtypes of ceramides, of which **Ceramide NP** occupies the highest proportion, reaching 22.1%. Ceramide NP, a lipid substance, can quickly and effectively penetrate into the interstitium of cells, maintain skin elasticity and hydration, repair and rebuild cell adhesion, quickly repair dry and damaged skin, suitable for sensitive skin.

Nonhydroxyl fatty acid, **N**
非羟基脂肪酸



phytosphingosine, **P**
植物鞘氨醇



CERAMIDE **NP**
神经酰胺 NP

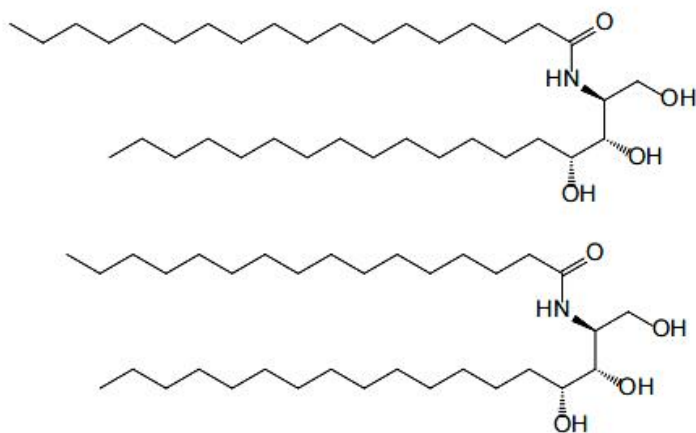
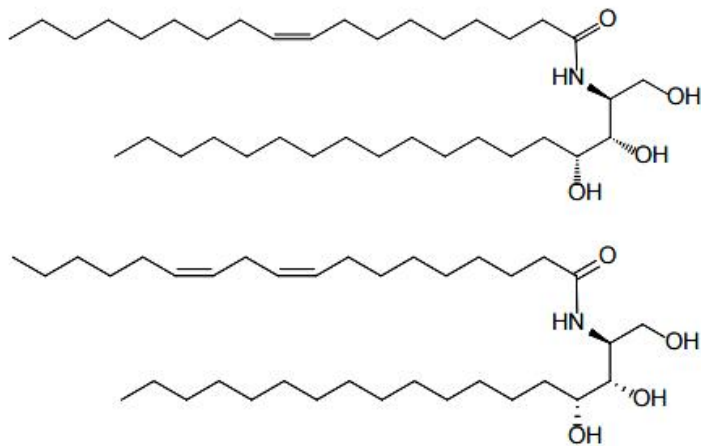
PRODUCT TECHNICAL SPECIFICATION

- INCI Name: Ceramide NP
- Purity: $\geq 95.0\%$ (HPLC)
- Characters: White or light white powder
- Recommended Addition: 0.02-2.0%

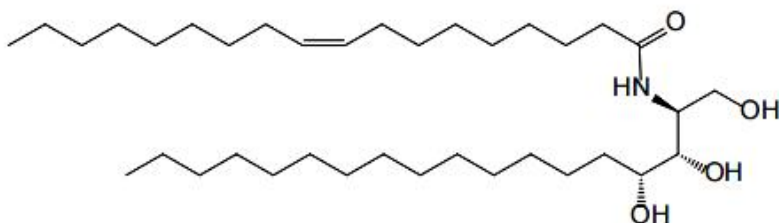
Fermentation source · 发酵来源
Skin Repair | Moisturizing | Barrier
Strengthening
修护 | 保湿 | 屏障加固

Different Ceramide NP chemical structure formula

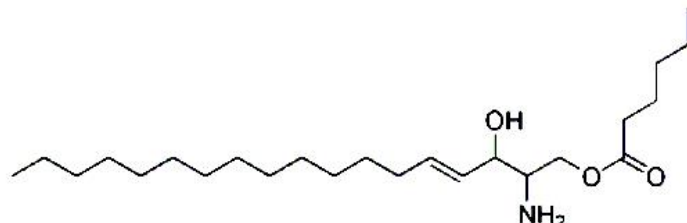
Ceramide NP1



Ceramide NP2



Ceramide IIIB



Skin Repair | Moisturizing | Barrier Strengthening | Anti-inflammatory

修护 | 保湿 | 屏障加固 | 抗炎

SKIN CARE EFFICACY

- Strengthens skin barrier function
- Maintain and improve skin hydration
- Reduce skin lines and wrinkles
- Improve dry, desquamation, rough skin
- Improve atopic dermatitis
- It has high permeability and is easily absorbed

EFFICACY TEST--SKIN REPAIR

Skin test: Effect of 0.2% Ceramide NP Repair Cream on skin surface (skin repairing).

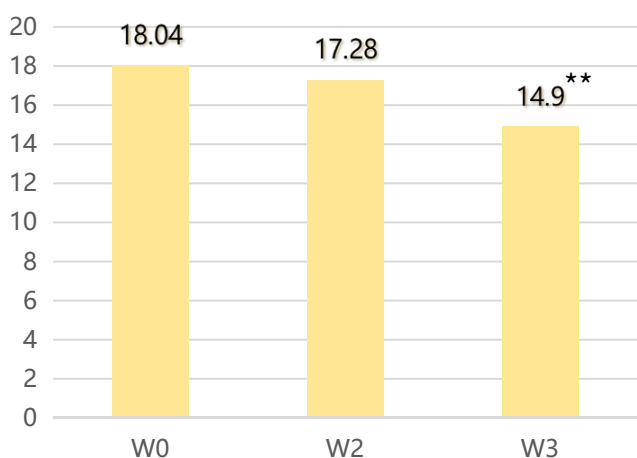
Test objective: Transepidermal water loss (TEWL), a* value (Skin redness value), Skin heme parameters

Test population: 30 female volunteers aged 23-50

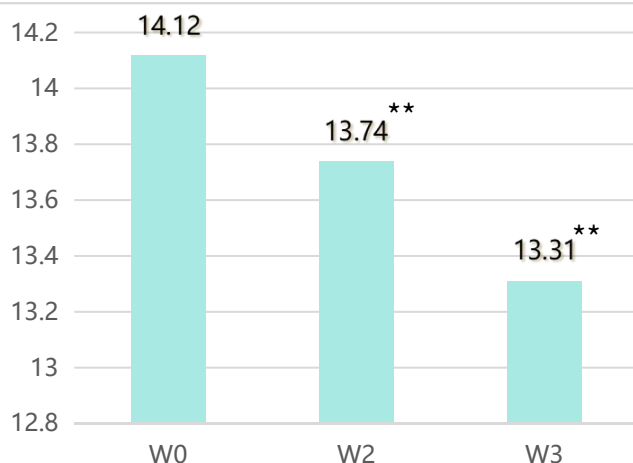
Test schedule: Use the product once a day for 4 weeks

Measurement time: W0 -initial value, W2- test value after 2 weeks of use, W4- test value after 4 weeks of use

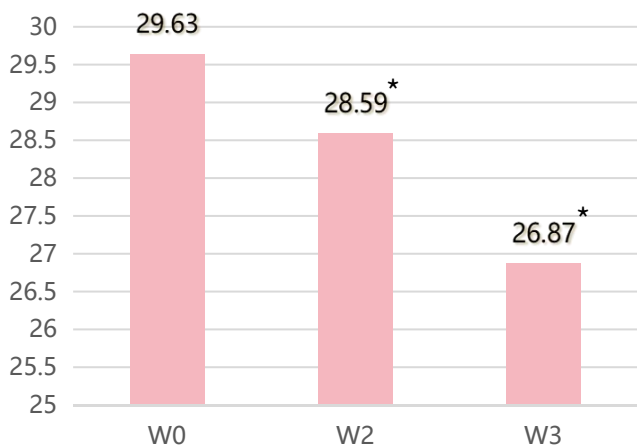
Comparison of W0,W2 and W4 value of transepidermal water loss (TEWL, g/cm²·h)



Comparison of W0,W2 and W4 value of a* value (Skin redness value)



Comparison of W0,W2 and W4 value of Skin heme parameters



Results: After 2 weeks of continuous use of 0.2% Ceramide NP Repair Cream, there was no significant change in TEWL, and a* value and skin heme parameters were significantly decreased (P<0.05). After 4 weeks of continuous use, the TEWL was significantly reduced (<0.01), the a* value and skin heme parameters were significantly down-regulated (P<0.05).

The results show that 0.2% Ceramide NP Repair Cream can effectively moisturize and reduce skin redness, thus achieving the effect of skin repair.

CERAMIDE EOP

神经酰胺EOP

XUFAN BIOTECH

Ceramide EOP, known as the most powerful skin barrier repair
神经酰胺EOP, 屏障修护天花板

Ceramide EOP, belongs to the third generation ceramide, has the original properties, its total carbon chain is C46, which is closer to the carbon chain distribution of human ceramide, and has stronger barrier repair, anti-inflammatory and moisturizing ability than ceramide NP and IIIB, and can improve skin elasticity.

ω -hydroxyl fatty acid, EO
 ω -OH脂肪酸



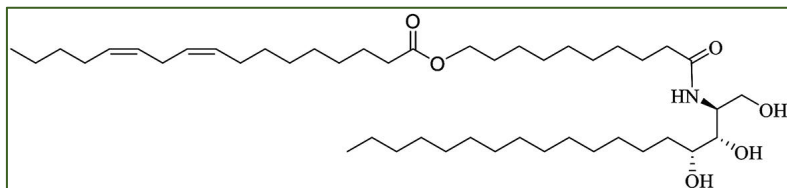
phytosphingosine, P
 植物鞘氨醇



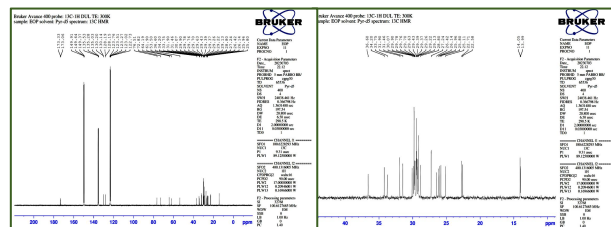
CERAMIDE EOP
 神经酰胺EOP

PRODUCT TECHNICAL SPECIFICATION

- INCI Name: Ceramide EOP
- Molecular Formula: $C_{46}H_{87}NO_6$
- Purity: $\geq 90.0\%$ (HPLC)
- Characters: White or light white powder
- Recommended Addition: 1-1000ppm



Skin Repair | Moisturizing | Barrier
 Strengthening | Anti-aging | Whitening
 修护 | 保湿 | 屏障加固 | 抗衰 | 美白



EOP C NMR

SKIN CARE EFFICACY

- **Maintain and enhance the skin barrier effect:** Ceramides containing ω -OH can covalently bind to the inner coat protein of the keratinocyte's keratinocyte envelope, thereby connecting the lipid matrix to the keratinocyte and enhancing the barrier function of the skin.
- **Moisturizing:** The mRNA and protein expression levels of filament polymerin can be significantly promoted. Ceramide is a highly effective moisturizing agent, easy to be absorbed by the skin, and can promote the penetration of other nutrients, and the moisturizing effect of up to 80% on dry skin in the elderly;
- **Anti-aging:** It can stimulate the proliferation of fibroblasts and inhibit the expression of matrix metalloproteinases, which has a certain anti-aging effect;
- **Whitening:** It can improve pigmentation caused by wounds or inflammation.

CERAMIDE AP

神经酰胺 AP (CAS No.: 212070-45-6)

XUFAN BIOTECH

CERAMIDE AP is a highly effective skin care active ingredient that helps renew the skin's natural protective layer, forms an effective barrier to prevent moisture loss and reduce the impact of the external environment, especially suitable for the long-term protection and repair of sensitive and dry skin.

Ceramide AP has other properties in addition to its protective role as a barrier lipid. Because of its AHA structure, ceramide AP normalizes the skin's natural peeling process, resulting in a smoother, softer complexion. As a natural skin barrier lipid, it is particularly suitable as a gentle desquamation agent for sensitive skin. It rejuvenates dull, rough and tired skin and reduces the appearance of fine lines.

α -hydroxyl fatty acid, A
 α -OH脂肪酸



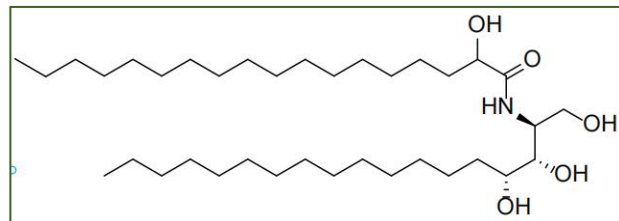
phytosphingosine, P
植物鞘氨醇



CERAMIDE AP
神经酰胺 AP

PRODUCT TECHNICAL SPECIFICATION

- INCI Name: Ceramide AP
- Purity: $\geq 90.0\%$ (HPLC)
- Characters: White or light white powder
- Recommended Addition: 0.05-1.0%



Skin Repair | Moisturizing | Barrier Strengthening | Boost scalp vitality
修护 | 保湿 | 屏障加固 | 提升头皮活力

PRODUCT SUPERIORITY

- ◆ Ceramide AP is a major component of skin barrier lipids
- ◆ Strengthens skin barrier function
- ◆ Repair and protect damaged hair (vitality, combability, shine)
- ◆ Suitable for recovery of dry, sensitive, aged skin
- ◆ High purity natural products

OPERATION SUGGESTION

- ◆ Oil-in-water (O/W) formulation: Ceramides can be dissolved and stabilized by the layered structure of the O/W emulsion. During the emulsification homogenization step, the ceramide should be clear and completely dissolved in the oil phase, and the water phase and oil should correspondingly maintain the same temperature.
- ◆ Water-in-oil (W/O) formulation: Ceramides need to be dissolved and stabilized by a highly polar oil phase.

PHYTOSPHINGOSINE

植物鞘氨醇 (CAS No.: 556-62-1)

XUFAN BIOTECH

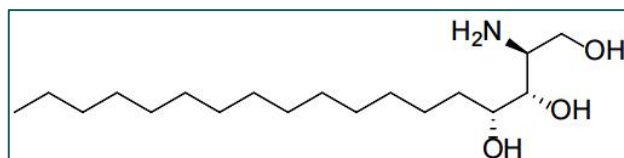
PHYTOSPHINGOSINE in the main role of cosmetics is moisturizing agent, antioxidant, skin conditioning agent, safe and effective, no acne-causing. It is a precursor of **Ceramides**, closely related to skin lipids, and is an important component of water retention and barrier function.

Phytosphingosine is one of the important oil components in human epidermis. With the increase of age, the phytosphingosine in human skin will gradually decrease, resulting in dry skin and rough skin. It can effectively **keep skin moist and protect the skin layer**. Phytosphingosine has antibacterial and anti-inflammatory properties and can be used to treat acne.

Calming and soothing | Desensitization and anti-sensitization | Skin repairing | Anti-acne | Natural anti-inflammatory
镇静舒缓 | 脱敏防敏 | 修复 | 治疗痤疮 | 天然抗炎

PRODUCT TECHNICAL SPECIFICATION

- INCI Name: Phytosphingosine
- Purity: $\geq 90.0\%$ (HPLC)
- Characters: White or light white powder
- Recommended Addition: 0.05-0.2%

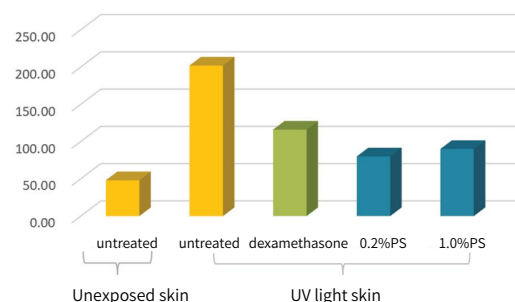


SKIN CARE EFFICACY

A natural inflammatory regulator

Phytosphingosine can eliminate skin redness, itching, papules, peeling and other sensitive phenomena, enhance skin resistance, and can also deeply repair and regulate sensitive skin to enhance skin's own defense ability.

Effect of UV-B on IL-1 α secretion in skin tissue



Anti-oxidant and Repair light damage

Phytosphingosine has obvious protective effect on skin free radical damage caused by ultraviolet irradiation, reduces the breakdown of collagen, the accumulation of keratin, and improves skin roughness.

Efficacy tests show that the use of phytosphingosine can effectively reduce the release of inflammatory factor IL-1 α , with an effective rate of up to 70%, which further confirms the biological role of phytosphingosine as a natural anti-inflammatory agent and can effectively reduce the symptoms of skin inflammation.

SALICYLOYL PHYTOSPHINGOSINE

水杨酰植物鞘氨醇(CAS No.: 212908-67-3)

XUFAN BIOTECH

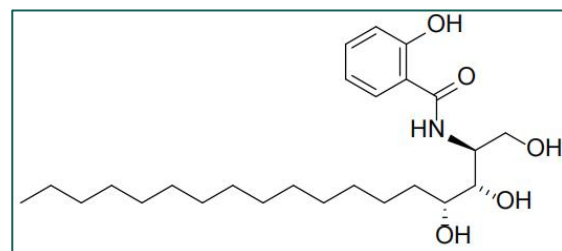
SALICYLOYL PHYTOSPHINGOSINE is prepared by the reaction of phytosphingosine and salicylic acid contained in the skin itself, so it combines the characteristics of these two active substances. Phytosphingosine is a precursor of ceramide, which can be combined with salicylic acid to enhance absorption, while ceramide is an important skin barrier and has the effect of skin conditioning.

Anti-aging / Anti-wrinkle / Skin renewal and repair / Repair reinforced barrier / Moisturizing

抗光老 / 抗皱 / 皮肤更新与修复 / 屏障修复加固 / 保湿

PRODUCT TECHNICAL SPECIFICATION

- INCI Name: Salicyloyl Phytosphingosine
- Purity: $\geq 95.0\%$ (HPLC)
- Characters: White or light white powder
- Recommended Addition: 0.05-0.2%
- Dissolution: Must be completely dissolved in the hot oil phase.



PRODUCT SUPERIORITY

- ◆ It helps reduce light damage to the skin;
- ◆ Strengthening the dermo-epidermal junction of the skin;
- ◆ Fade fine lines, make skin smoother;
- ◆ Narrow pores;
- ◆ Reduce the symptoms of skin inflammation;
- ◆ Reverse skin aging;
- ◆ Suitable for recovery of dry, sensitive, aged skin

Skin Care Mechanism of Action

- ◆ Induces the formation of fibrillar albumin-1;
- ◆ Promote the formation of collagen albumin-1 in dermopapillary;
- ◆ It can significantly reduce MMP-1 (matrix metalloproteinase) and decrease the degradation of collagen albumen;
- ◆ It can significantly reduce the release of IL-1 α ;
- ◆ It can induce the formation of ceramide and strengthen the barrier function of skin.

TETRAACETYL PHYTOSPHINGOSINE

四乙酰基植物鞘氨醇(CAS No.: 13018-48-9)

XUFAN BIOTECH

TETRAACETYL PHYTOSPHINGOSINE (TAPS), which is the precursor active substance of ceramide, is better used in the formula, and the skin feels softer and more stable.

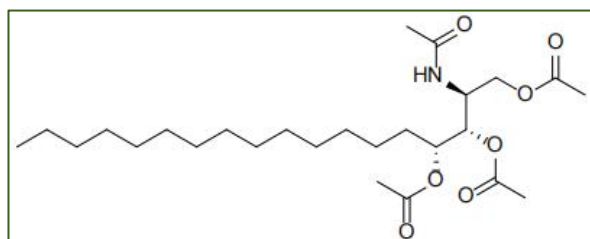
It increases the production of endogenous types 1, 2, 3, 4, 5, 6 ceramides, providing the perfect repair for sensitive muscles and dry skin.

Eye care / Anti-aging / Anti-inflammatory / Acne treatment / Atopic dermatitis treatment

眼部保养 / 抗老化 / 消炎 / 治疗痤疮 / 治疗异位性皮炎

PRODUCT TECHNICAL SPECIFICATION

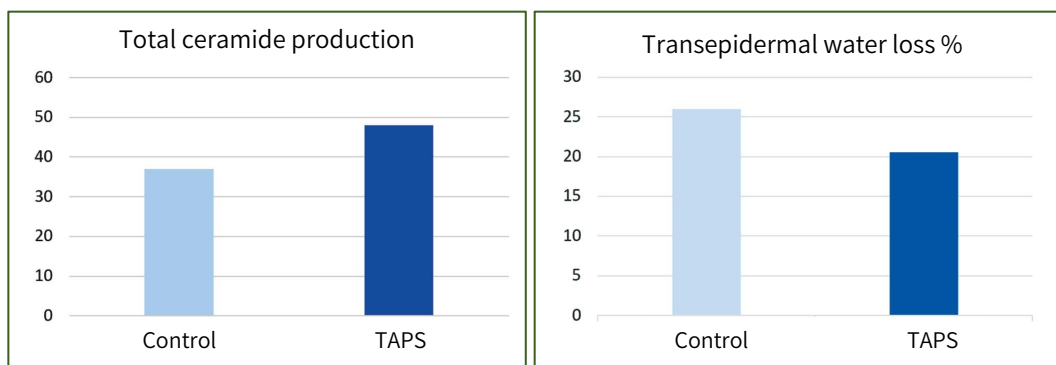
- INCI Name: Tetraacetyl Phytosphingosine
- Purity: $\geq 90.0\%$ (HPLC)
- Characters: White or light white powder
- Recommended Addition: 0.05-2.0%



SKIN CARE EFFICACY

- A Moisturizing and skin repair**
TAPS, a lipid source that makes up the cuticle water-locking barrier of the skin, can increase the overall ceramide content in the skin and reduce the rate of transdermal water loss, thus achieving the effect of skin moisturizing and skin repair.
- B Improve dark circles under the eyes**
TAPS can significantly inhibit the formation and leakage of capillaries and improve the effect of dark circles.
- C Anti-aging and anti-wrinkle**
TAPS can promote the regeneration and repair of skin cells and facilitate the synthesis of collagen and elastic fibers, thereby slowing the process of skin aging.

Efficacy tests showed that the use of tetraacetyl Phytosphingosine products resulted in a significant increase in overall ceramide synthesis in the skin and a significant decrease in transdermal water loss.

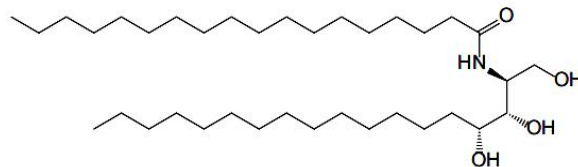


MORE CERAMIDE SERIES PRODUCTS
更多神经酰胺系列产品

XUFAN BIOTECH

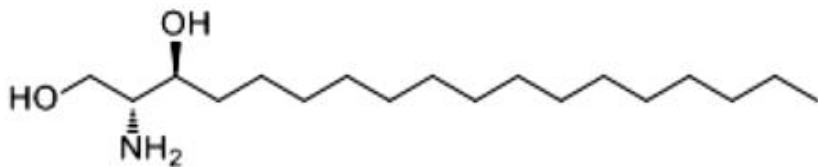
N-stearoyl-phytosphingosine N-硬脂酰-植物鞘氨醇 (CAS: 34354-88-6)

- ◆ Purity: $\geq 90\%$ (HPLC-UV)
- ◆ Repair | Moisturizing | Strengthening Skin Barrier
- ◆ 修复 | 保湿 | 屏障加固



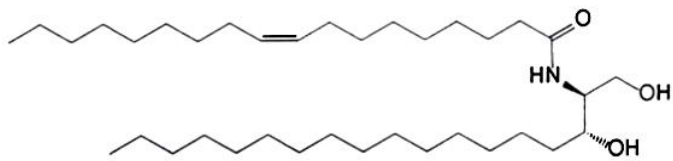
Dihydrosphingosine(SPHINGANINE) 二氢（神经）鞘氨醇 (CAS: 3102-56-5)

- ◆ Characters: White or light white powder
- ◆ Recommended Addition: 0.05-0.5%
- ◆ Repair | Scalp Health | Anti-hairfall
- ◆ 修复 | 头皮健康 | 防脱护发



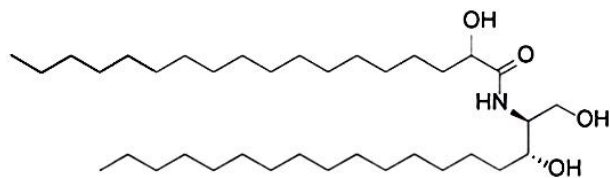
Ceramide NS/Ceramide NG 神经酰胺 NS/神经酰胺 NG

- ◆ Characters: White or light white powder
- ◆ Recommended Addition: 0.05-2.0%
- ◆ Repair | Moisturizing | Strengthening Skin Barrier | Antiphlogosis
- ◆ 修复 | 保湿 | 屏障加固 | 消炎



Ceramide AS 神经酰胺 AS

- ◆ Recommended Addition: 0.05-0.3%
- ◆ Repair | Moisturizing | Soothing and sensitive
- ◆ 修复 | 保湿 | 舒缓舒敏



Sphingosine Mixture 鞘氨醇混合物

- ◆ Main Component: PhytoSphingosine 50-70%; Dihydrosphingosine 20-30%
- ◆ Characters: White or light white powder
- ◆ Recommended Addition: 0.05-1.0%
- ◆ Repair | Moisturizing | Skin defense | Antiphlogosis
- ◆ 修复 | 保湿 | 屏障防御 | 消炎

Ceramide Mixture 神经酰胺混合物

- ◆ Main Component: Ceramide NP 50-70%; Ceramide NS/Ceramide NG 25-30%
- ◆ Characters: White or light white powder
- ◆ Recommended Addition: 0.05-2.0%
- ◆ Repair | Moisturizing | Strengthening Skin Barrier | Antiphlogosis
- ◆ 修复 | 保湿 | 屏障加固 | 消炎