# HyWhite

Natural derivative of a-linolenic acid and hyaluronic acid

CHINA COMPLIANT

PATENTED PREPARATION

INCI: SODIUM HYALURONATE AND LINOLENIC ACID

## Mechanism of action





Hyaluronic acid effectively **delivers a-linolenic acid to the target** – tyrosinase in melanocytes.

a-linolenic acid **increases degradation of tyrosinase** – a key enzyme in melanogenesis.

It is also a **proteasome activator** – the degradation of tyrosinase occurs via proteasome.

# LIGHTENING



## LIGHTENING EFFECT

### In vivo study by Intertek - China



HW (0,005%) in emulsion, face, 35 Asian volunteers. ITA value determined by colorimeter (Courage and Khazaka electronics)

# WHITENING



## DECREASE IN MELANIN CONTENT

### In vivo study by Intertek - China



HW (0,005%) in emulsion, face, 35 Asian volunteers. Melanin content determined by Mexameter (Courage and Khazaka electronics)



## REDUCTION OF PIGMENTED SPOTS

### In vivo study by Contipro



HW (0,005%) in emulsion, face, 15 Caucasian volunteers. Number of pigmented spots determined by Visioface

#### Before



**Pigmented spots reduction** after 2 weeks of daily treatment with 0,005% HyWhite



# Additional advantages of HyWhite

- Effectively penetrates the skin
- Improves skin colour uniformity
- Effective both in Asian and Caucasian type of skin
- Increases cell metabolism and energy production
- Stronger capacity to bind to the skin, it is not washed off easily as unmodified HA



penetration - Franz diffusion cells, 24h at 37  $^\circ$ 

## Production of HyWhite in Contipro

#### Sustainable biotech production

HyWhite is produced by chemical modification of very low molecular weight hyaluronic acid with a-linolenic acid. Our HA is made by fermentation of a non-haemolytic microbial strain Streptococcus equi.

#### **Enviromental friendly production**

- Everything we make is **biodegradable**.
- We have our own **solar power plant** and **wastewater treatment plant**.
- Our buildings are **heated with residual energy** from our production operations.

#### **Natural product**

Contipro's HyWhite has **natural origin index 1** (according to ISO 16128-1:2016 and 16128-2:2017)



## HyWhite: Collected technical data

- INCI name: Sodium Hyaluronate and Linolenic Acid
- Supplied form: powder
- Samples: 1 g
- **Minimal ordering quantity:** 1 kg (If ordering smaller quantities, price can increase due to handling fees)
- Recommended concentration in final products:
  0.005 0.01 % of powder (safety tests up to 0,4%)
- Shelf-life: 18 months
- **Source**: HyWhite is produced by chemical modification of low molecular weight hyaluronic acid with a-linolenic acid. Hyaluronic acid is obtained by fermentation, a-linolenic acid is from a plant source.

Compatibility and processing: Sensitive to heat and high humidity; avoid prolonged heating (heating over 60 °C for 60 min can lead to a decreased degree of substitution and degradation by oxidation). Extreme pH (less than 4 or more than 10) leads to further decomposition. Incompatible with cationic substances, e.g. surfactants or polymers (polyquarternium-4, polyquarternium-10, etc.)

٠

٠

**Solubility:** Fully soluble in water; soluble in aqueous mixture of ethyl alcohol and isopropyl alcohol.

# Who We Are

World **leader in research and manufacturing** of hyaluronic acid.

Innovator in biotechnologies **since 1990**.

Reliable partner of **successful brands**.



# We Are Here to Help You

#### **ZUZANA JENÍKOVÁ**

Technical specialist for active ingredients

E-mail: **jenikova@contipro.com** 





Contipro a.s. | Dolní Dobrouč 401, 561 02 | Czech Republic, European Union Phone: +420 465 519 530 | E-mail: sales@contipro.com | www.contipro.com