

# Skin natural defender

## LENIPHENOL®

Leniphenol® is the perfect ingredient for a “Sustainable Beauty” **in harmony with the environment**; it's derived from the bark of certificated industrial wood wastes, **respecting FSC** (Forest Stewardship Council) criteria.

A perfect combination of three balanced polyphenols, it matches outstanding **anti-oxidant** and **lenitive** properties for sensitive skins with a high protection from **pollution** and **uv rays**. It is also effective in **counteracting age signs**, thanks to its inhibiting activity on hyaluronidase and elastase enzymes.

- UV filter booster
- Anti-oxidant properties
- Lenitive and anti-redness
- Hyaluronidase and elastase inhibitor
- Effective against air pollutants



**Sinerga**  
SKIN EVOLUTION

## PROPERTIES

Leniphenol is a pleiotropic molecule with synergistic properties, able to increase SOD (Superoxide Dismutase) activity and protect skin from **oxidation** damages caused by sun exposure (2 times more effective than Vitamin C in reducing ROS).

Especially recommended for sun care formulations, it is an optic active compound able to significantly **absorb UVB and UVA**, protecting skin from UV rays and acting also as a **booster** for both chemical and physical **filters** (+15% and +14.9%). This totally green ingredient also has a protective efficacy against **air pollutants** and remarkable lenitive properties for sensitive skins, being able to reduce inflammation, redness and itching.

Its **anti-aging** efficacy, thanks to its inhibiting activity on hyaluronidase and elastase enzymes, makes it also suitable for anti-aging formulations.

## INCI NAME

Pinus Radiata Bark Extract

## SPECIFICATIONS

Appearance: liquid  
 Color: dark brown  
 Odour: characteristic  
 pH: 7-8  
 Suggested dosage: 1-3%

## EFFICACY TEST\*

**+75%** SOD activity, with a dose-dependent effect.

Leniphenol® also inhibits ROS release in response to UVA in a skin-derived cell model, with a double efficacy than Vitamin C.

**-36%** immediate reduction of Elastase activity, after 1'  
**-30%** Hyaluronidase activity after 10'  
**-31%** IL-1α release, after 24h  
**+22.33%** antipollution efficacy

Leniphenol® can be proficiently used also as booster for chemical and physical UV filters in order to increase their Sun Protection Factor (SPF):

**+15%** with chemical filters  
**+14.9%** with physical filters

\*More information available at [www.sinerga.it](http://www.sinerga.it)

## MAIN APPLICATIONS

Lenitive, anti-redness cosmeceuticals and phytocosmetics for sensitive and inflamed skins. Sun care and dermatological treatments. Anti-age formulations and city filters with antipollution efficacy.

## SKIN-SHIELD SOOTHING CREAM

INGREDIENTS	PHASE	%w/w
Water	A	70,5
Hydroxyacetophenone	A	0,50
Sodium Benzoate	A	0,35
Disodium EDTA	A	0,10
Panthenol and Glycerin	A	2,00
Xanthan Gum	A	0,20
<b>Phytocream® 2000</b> (Potassium Palmitoyl Hydrolyzed Wheat Protein, Glyceryl Stearate, Cetearyl Alcohol)	B	5,5
Cetearyl Alcohol	B	1,50
Prunus Amygdalus Dulcis Oil	B	2,00
Cetearyl Isononanoate	B	5,00
Butyrospermum Parkii (Shea) Butter	B	2,50
Moringa Oil/Hydrogenated Moringa Oil Esters		0,50
Lecithin, Tocopherol, Ascorbyl palmitate, Citric acid		0,05
<b>LENIPHENOL®</b> (Pinus Radiata Bark Extract)	C	2,00
Bisabolol	D	0,10
<b>Trisolve C®</b> (Ceramide NS, Trehalose, Phytosterols, Hydrogenated Lecithin)	E	1,00
<b>Red Alga Gel®</b> (Ahnfeltiopsis Concinna Extract)	F	2,00
<b>Risolat</b> (Oryza sativa bran oil, Hydrolyzed Rice Protein, Potassium Palmitoyl Hydrolyzed Wheat Protein)	G	2,00
Sodium Hyaluronate (and) Aqua (and) Phenoxyethanol	H	2,00
Fragrance	I	0,20

### METHOD

- Wweight phase A, heat at 75°C and add Xanthan Gum under stirring
- Wweight phase B, heat at 75°C and add Lecithin, Tocopherol, Ascorbyl palmitate, Citric acid under stirring
- Add B to A until homogeneous emulsion
- Add C at 50° C, then cool down at 30° C and add D-H
- Add phase I

### CHARACTERISTICS

Appearance: emulsion  
 Colour: beige/white  
 Odour: characteristic  
 pH: 5.5 - 6.5