

| Inspiring beauty of future

Immedeline PG

JAKA⁺





Immedeline PG

1 The need of market

2 Birth of Immedeline PG

3 Efficacy data

4 Applications

The need of market

The emergence of Immedeline PG can meet the sensory demand of consumers for anti-aging products.

1

Youth · Adoration

— In a society where youth is adored, one is not allowed to grow old —

Post-85, 90, 00 · initial aging market

Ageless skin is the result of "care".

'prevent' in advance



Post-60, 70, 80 · silver hair market

Wealthy, time available, and
have needs for anti-aging

'stop loss' in time



JAKA ♦

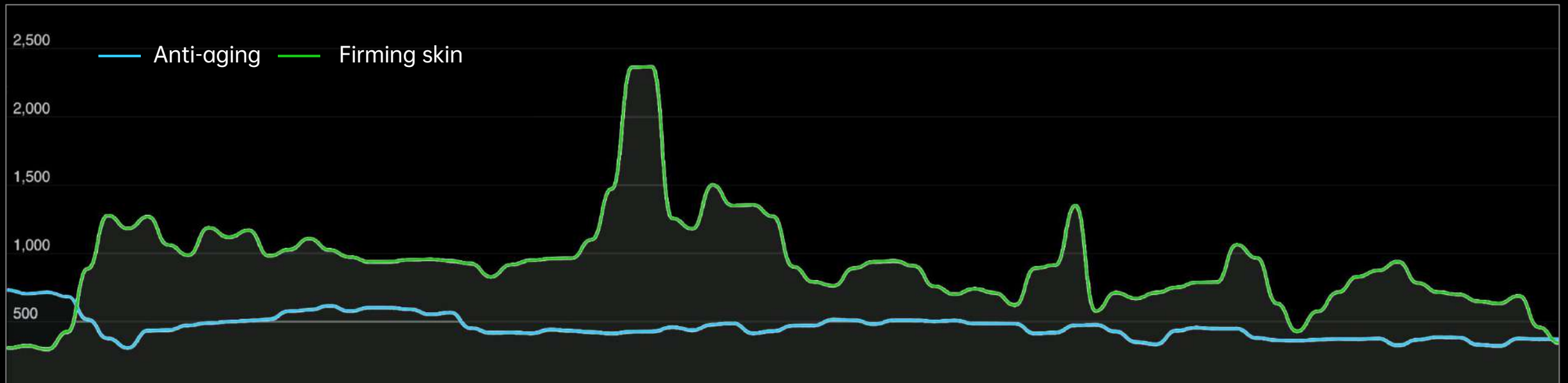
STAR anti-aging product in New generation

—— **95%** of product advertisements contain the efficacy "firming" ——

Brand	Product name (code)	Marketing claims
Olay	Regenerist Micro-Sculpting Cream (4th Generation Red Jar)	Firm skin and retain youth; tighten contours; improve elasticity; reduce fine lines
Estee Lauder	Advanced Night Repair Eye Concentrate Matrix Synchronized Recovery (Little Brown Bottle eye concentrate)	Firm big eyes to look younger; reduce fine lines; plump skin, firm skin around eyes
Estee Lauder	Perfectionist Pro Rapid Firm + Lift Treatment (Thread lift treatment)	Reshape 3D contours, tighten cheeks obviously; plump submalar triangle and lifted jawline
L'Oreal	RevitaLift Anti-Wrinkle + Firming Eye Cream (Small Iron eye cream)	Solve eye contour problems, make eyes look firm and young
SK-II	Stempower (SK-II Red Bottle)	Repair damaged skin, firm skin in an all-around manner
Lancome	Rénergie Multi-Lift Ultra Full Spectrum Cream (Snow cream)	Fast absorption, firming and whitening functions combined
La Prairie	Skin Caviar Liquid Lift (Gravity-defying serum)	Revitalize young and firm skin: Lift and firm skin, effectively smooth fine lines and wrinkles

STAR anti-aging product in **New generation**

—— Search for "firming skin" continues to be higher than "anti-aging"——



Data sources: Baidu Index

Comparison of search index **anti-aging** vs **firming skin** during 2018-2019

Both Firming and anti-aging products
are claiming in the market.

Instant effect

SHAPE (website), owned by the US Meredith Corporation media group, is a communication platform focusing on beauty trends with millions of monthly active users and 20 million monthly visits. The products on the right are 3 of the TOP 10.

Instant

firmness, fine
lines disappear

ESTÉE
LAUDER

Perfectionist Pro
Rapid Firm+Lift Treatment
Acetyl Hexapeptide-8
Soin lift et fermeté rapide

FOR
BELOVED
ONE

Advanced Anti-Aging
Copper Peptide Bio-Cellose Mask
20 mins
firmness, elasticity
improved
3 pieces

15 mins

skin firmness and
renewal



Consumers

Instant firming products



See + feel

Visual

Tactile sense



Demands

JAKA+

Birth of Immedeline PG 2

The magical nature, like a magician, has inspired us a lot;
it's also where Immedeline PG's inspiration comes from.

“
Natural
is the first rule
”

Searching

There are no more than two macromolecules in nature that can tighten skin quickly: proteins and polysaccharides; after years of exploration: **plant polysaccharides** are found to be the most ideal and safest ingredients.



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"Inspiration" from natural phenomena

Prunus persica (peach) Resin Extract exists for "neogenesis "

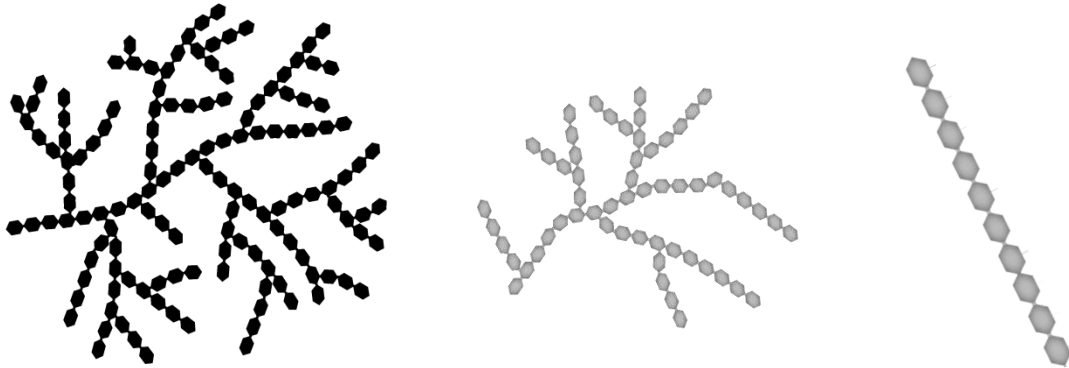
Peach resin, also known as *Prunus persica* (peach) Resin Extract, is secreted from the bark of peach trees under the action of external forces to produce wounds. It can **tighten** the cracked bark and promote wound healing. Thus, this is the self-defense mechanism of the peach tree.

Prunus persica (peach) Resin Extract for skin firming

"Golden ratio 4:1"

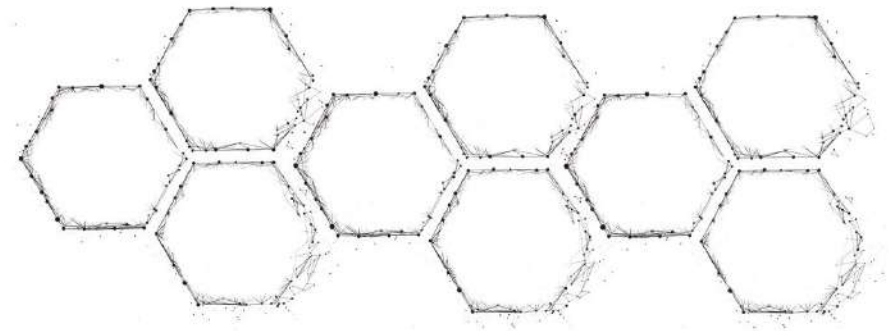
-Exploring the skin firming mechanism of *Prunus persica* (peach) Resin Extract polysaccharide

-*Prunus persica* (peach) Resin Extract is a kind of natural polysaccharide translucent *Prunus persica* (peach) Resin Extract secreted from damaged peach tree branches and trunks. The macromolecular chain of *Prunus persica* (peach) Resin Extract is **highly branched**, and its polysaccharides mainly consist of arabinose (64.03%), galactose (27.37%), and others.



Network film

-The research of JAKA Innovation Lab found that *Prunus persica* (peach) Resin Extract polysaccharides with **specific molecular weight interval combination** could achieve the best skin tightening effect. (Remarks: 4:1 refers to the ratio of grade 100,000 polysaccharides to grade million polysaccharides)



-Millions of molecules form a large skeleton -Filled with hundreds of thousands of molecules

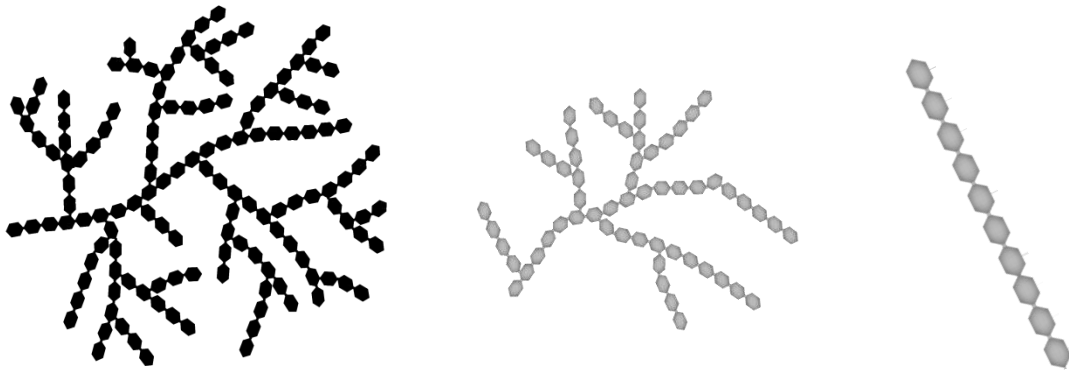
Dense network film

Prunus persica (peach) Resin Extract for skin firming

"Golden ratio 4:1"

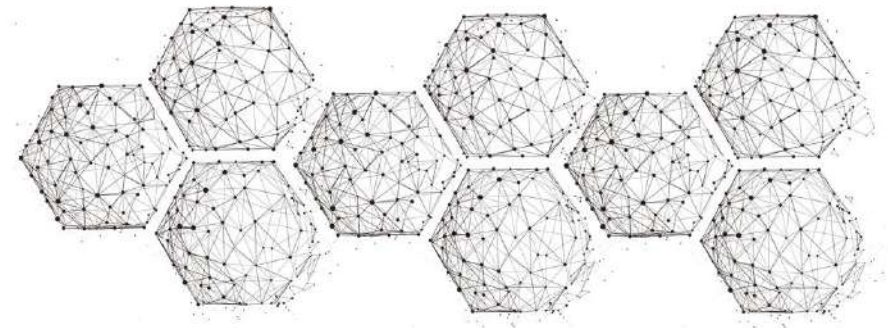
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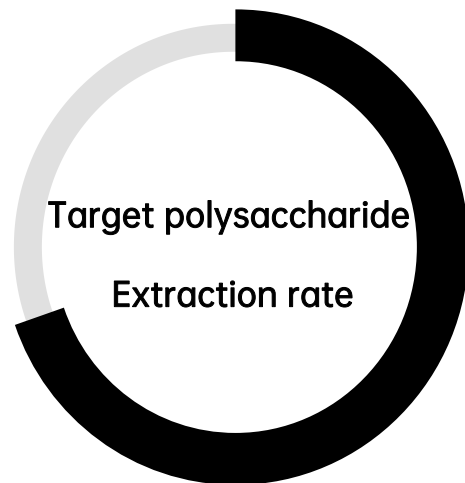
-Millions of molecules form a large skeleton -Filled with hundreds of thousands of molecules

Dense network film

Innovative extraction process

Variable temperature extraction + ion exchange resin

- We have been working for several years to find the best process to extract the two target polysaccharides;
- After long exploration, it was found that: with the combined process of **gradient temperature extraction + ion exchange resin**, the target polysaccharides can be extracted and enriched to the greatest extent, and the viscosity of the polysaccharides can be also accurately controlled.
- The polysaccharides obtained by this process can bring the best tightening effect and the most comfortable use feeling to the skin.



+56%



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The image shows a majestic snow-capped mountain peak, the Jade Dragon Snow Mountain, rising behind traditional Chinese buildings with dark tiled roofs. The mountain's peaks are partially covered in snow and are bathed in a warm, golden light, suggesting a sunrise or sunset. The sky is a clear, pale blue. The foreground features the dark, layered roofs of several traditional Chinese structures, with some windows visible on the left. The overall scene is a harmonious blend of natural beauty and cultural heritage.

Lijiang·Jade Dragon Snow Mountain

The most precious peach (peach) Resin Extract

Lijiang, backed by the Jade Dragon Snow Mountain, with pure alpine snow and ice melt water, high altitude, abundant light, and high-quality soil, rich in trace elements, is known as a modern version of the "paradise of the world". The unique environmental factors provide excellent conditions for the growth of *Prunus persica* (peach) Resin Extract .

JAKA®



Unique Naxi culture

The snow peach is integrated with the intelligence of Naxi culture that takes it in moderation, and uses it in a disciplined manner, in pursuit of harmonious symbiosis with all things, the mountain, the water, and the human.



Precious peach: snow peach

Snow peach, the rare species, has a unique quality based on its long growing period and particular environment, and is reputed to be the 'fairy fruit of the world'.



Natural secretion of *Prunus persica* (peach) Resin Extract

The *Prunus persica* (peach) Resin Extract is secreted naturally from nature, keeping original production process and not cut artificially. Thus it is truly the pure and natural *Prunus persica* (peach) Resin Extract .

JAKA+

Birth of Immedeline PG

JAKA*

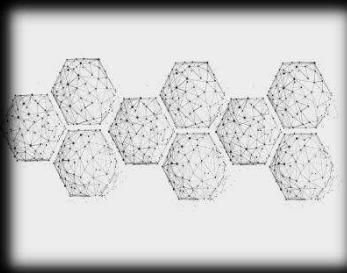
— INCI: Water, *Prunus persica* (peach) Resin Extract, 1,2-Hexanediol, Ethylhexylglycerin —

Inspiration from natural phenomena



Prunus persica (peach) Resin Extract is secreted from the bark of peach trees under the action of external forces to produce wounds. It can **tighten** the cracked bark.

Golden ratio



Prunus persica (peach) Resin Extract polysaccharides with **specific molecular weight interval combination** can achieve the best skin tightening effect.

Innovative extraction process



The combined process of **gradient temperature extraction and ion exchange resin** can maximize the enrichment of the target polysaccharides.

Precious source



Prunus persica (peach) Resin Extract produced in the **Jade Dragon Snow Mountain** is not artificially processed and there is no pollution, so it is called the most precious *Prunus persica* (peach) Resin Extract

Efficacy Data

The Immedeline PG obtained by innovative technology can bring consumers the best skin firming effect and the most comfortable experience.

3

5min skin firming

8h wrinkles invisible

Efficacy data

Anti-Wrinkle
data

Skin Firming
data

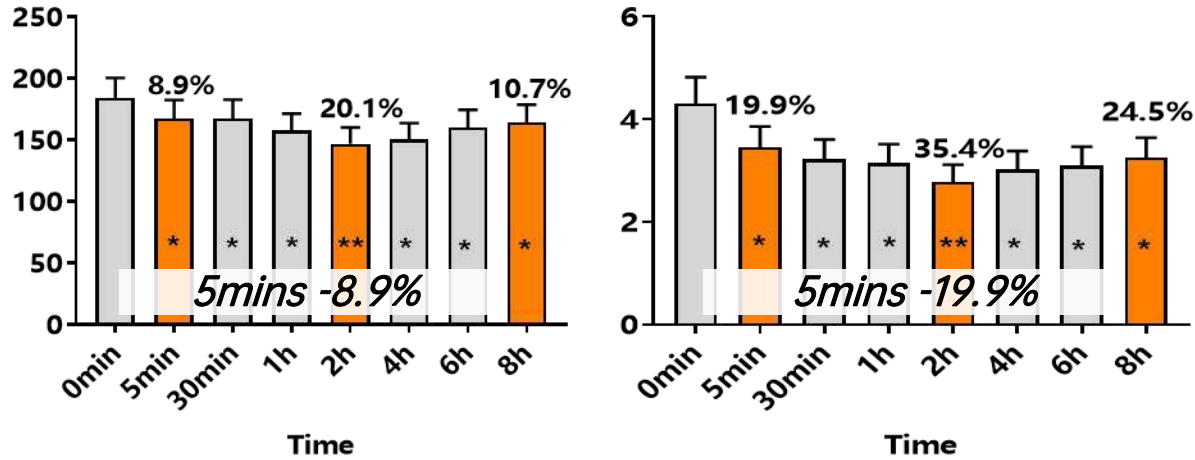
Moisturizing
data

1 2 3

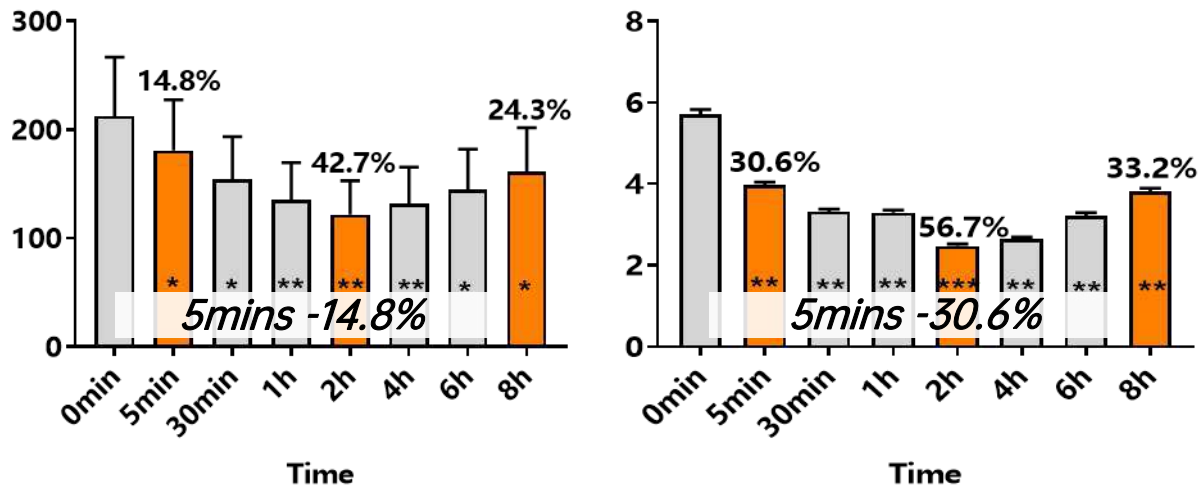
Anti-Wrinkle data



SEw skin wrinkle parameter 2% Immedeline PG SEr skin roughness11 parameter



SEw skin wrinkle parameter 5% Immedeline PG S SEr skin roughness parameter



Compared with 0 min, * means P<0.05, ** means P<0.01, *** means P<0.001.

Immedeline PG

"Wrinkle invisibility cloak, smoothness fighter"

- *In vivo*, corners of eyes of a healthy person (n=11)
- Apply a base gel containing 5% Immedeline PG on the corners of the eyes;
- Take pictures with VC98 and VISIA after different time;
- Data analysis and processing, SEr skin roughness parameter; SEw skin wrinkle parameter.

5min skin smoothness **+30.6%**

5min skin wrinkle **-14.8%**

at **2h**, the best wrinkle removal effect wrinkles

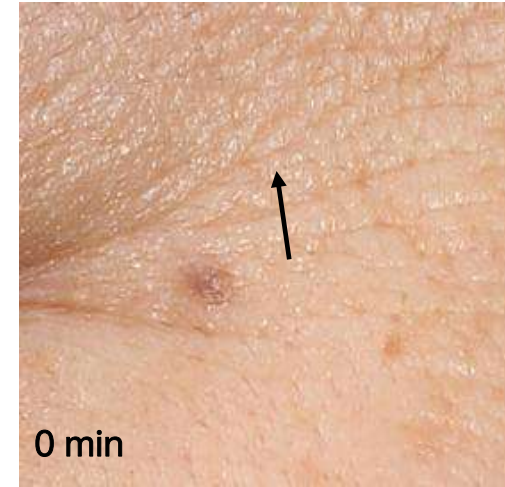
invisible continuously for **8h**

Anti-Wrinkle data

- Detecting instrument: VISIA



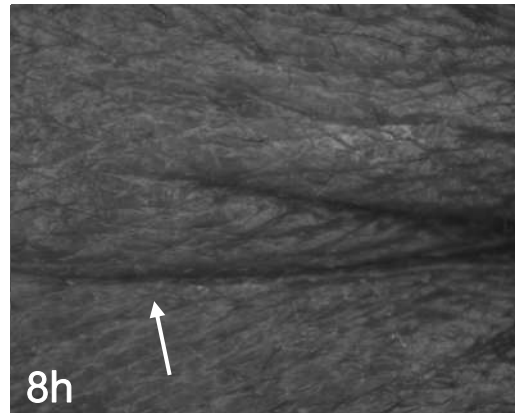
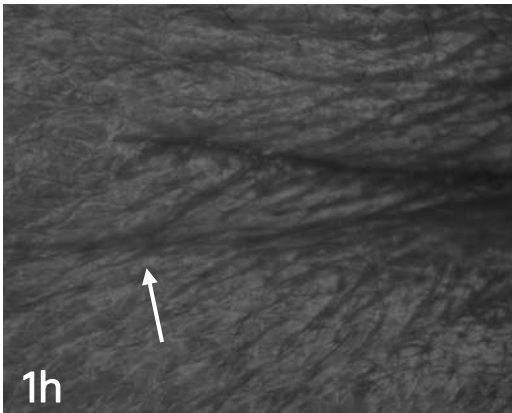
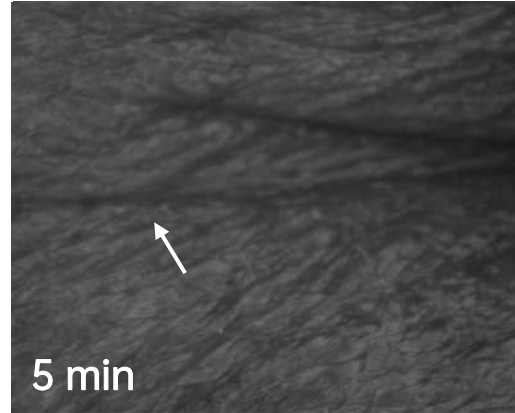
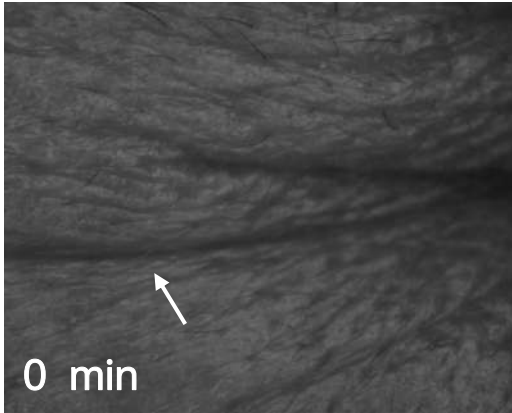
Subject 1 - 5% Immedeline PG



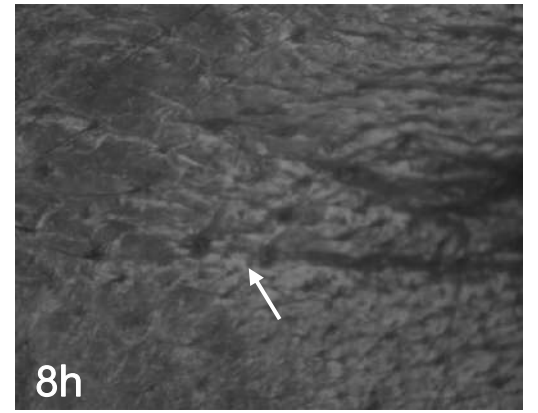
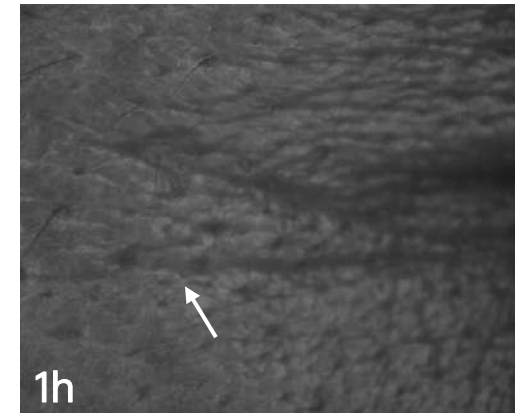
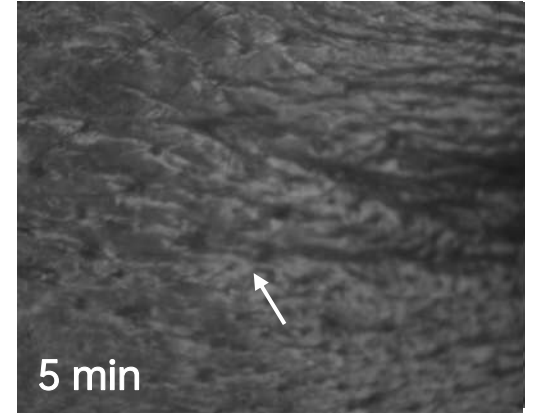
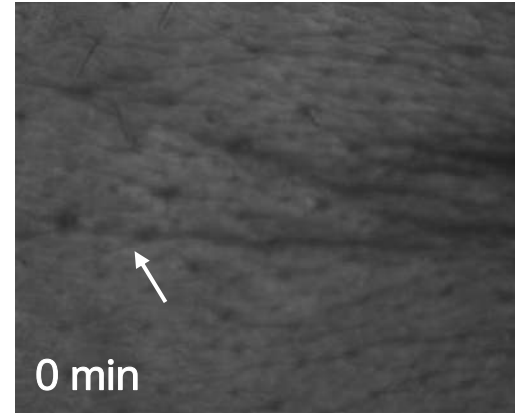
Subject 2 - 5% Immedeline PG

Anti-Wrinkle data

- Detecting instrument: VC98



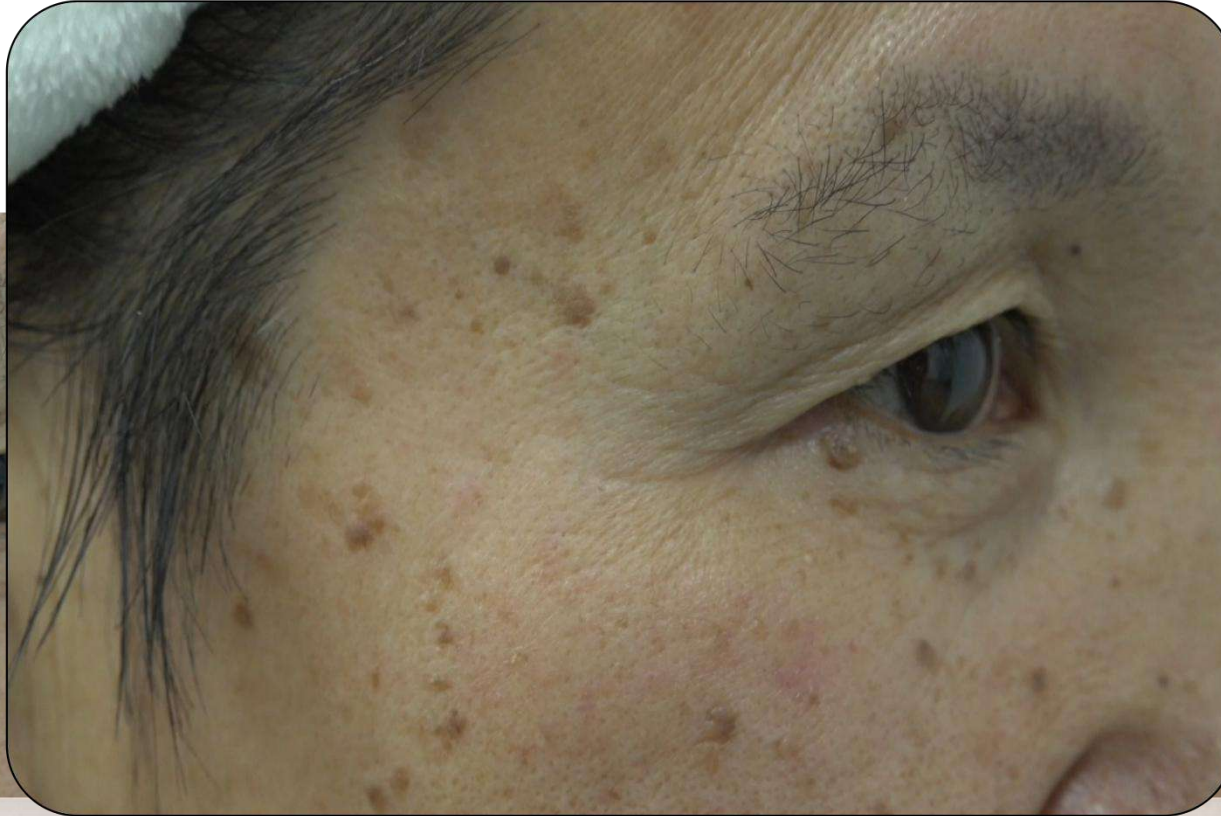
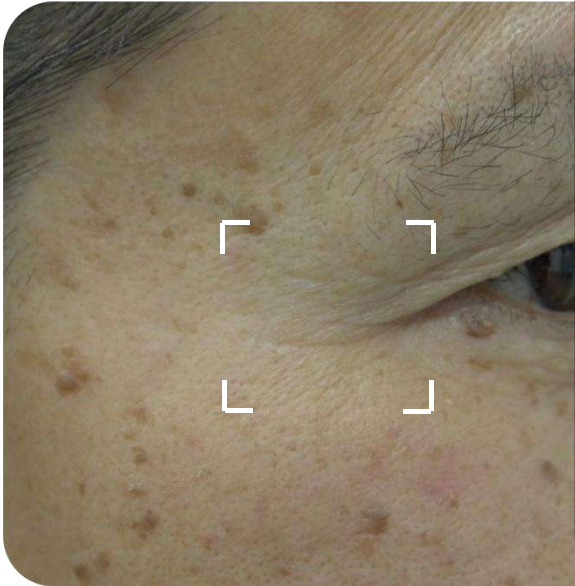
Subject 3 - 10% Immedeline PG



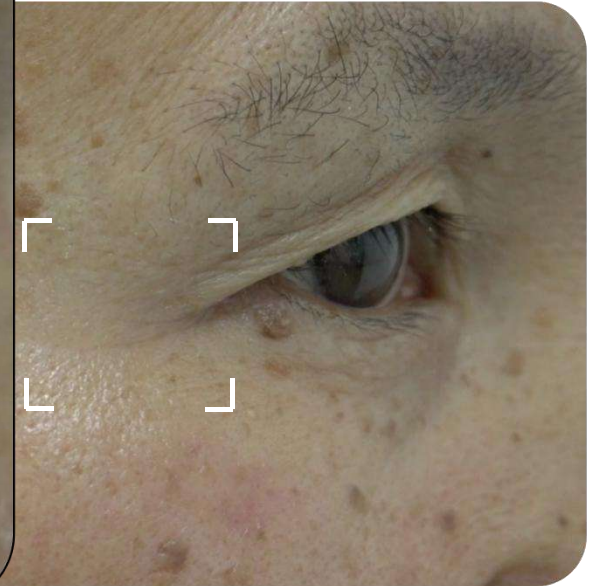
Subject 4 - 10% Immedeline PG

Anti-Wrinkle data

Before treatment



After 10min



Immedeline PG has an obvious wrinkle removing effect in *10mins*.

Skin Firming data

Firming Feelings by trained evaluators

25 volunteers aged 35-55

2% Immedeline PG
(Only judge whether there
is firmness feeling, no
comparison)

5% Immedeline PG
(Compared to 2%)

10% Immedeline PG
(Compared to 5%)

Proportion of those
having firmness
feeling

100%

Have better firming
effect than 2%
Immedeline PG

88%

(12% think the effect is similar)

Have better firming
effect than 5%
Immedeline PG

100%

Immedeline PG

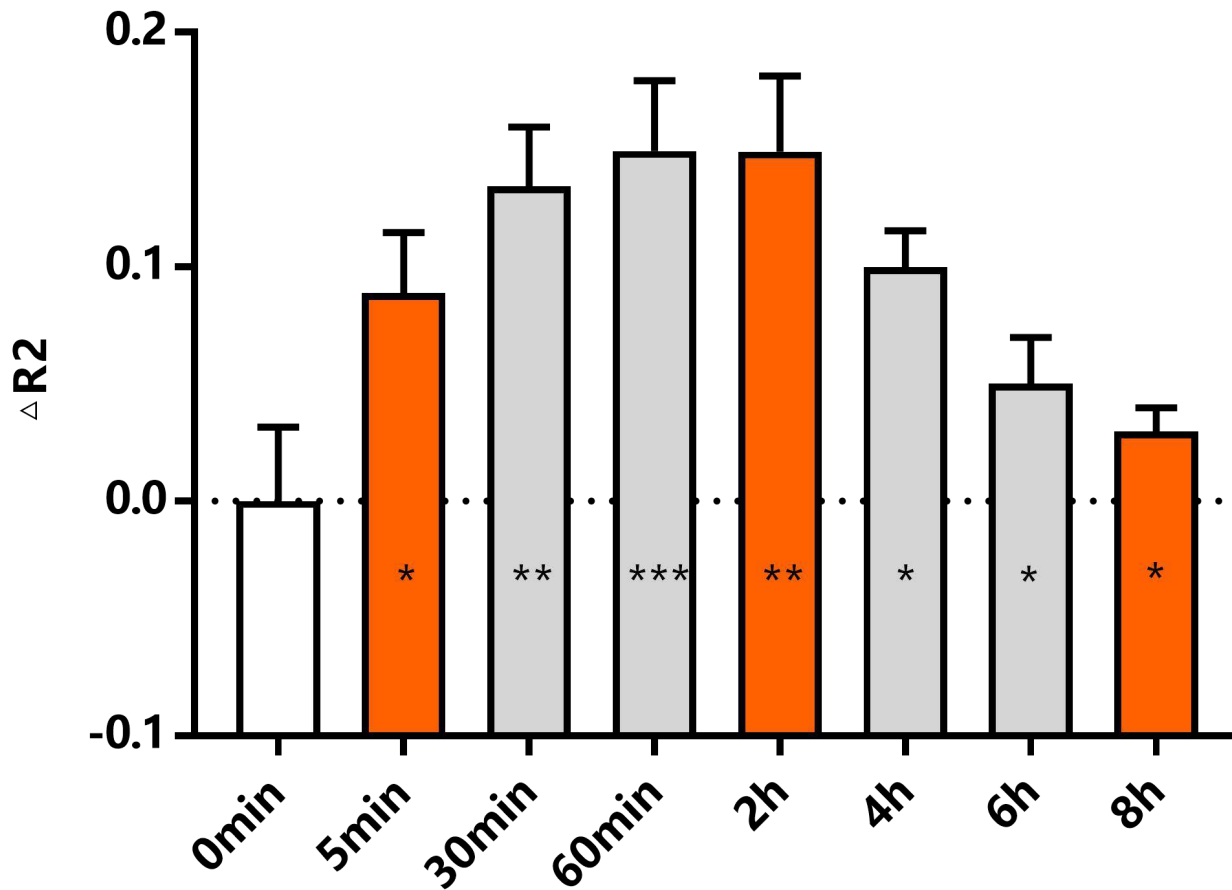
Significant firmness at low concentrations

-Working principle: The skin firmness of 1%, 3% and 5% of the standard product is taken as the scoring criteria, marked as 1 point, 3 points and 5 points
- In vivo, corners of eyes of a healthy person (n=25)
- Apply products containing 2%, 5% and 10% Immedeline PG, absorb and dry at room temperature;
- Subjectively evaluate whether there is skin firmness or on which side skin firmness is more obvious.

2% Immedeline PG already has **obvious skin firming effect.**

5%, 10% Immedeline PG produce **better** skin firmness.

Skin Firming data



Compared with 0 min, ***means $P < 0.001$, ** means $P < 0.01$, * means $P < 0.05$

Immedeline PG

improves skin elasticity quickly.

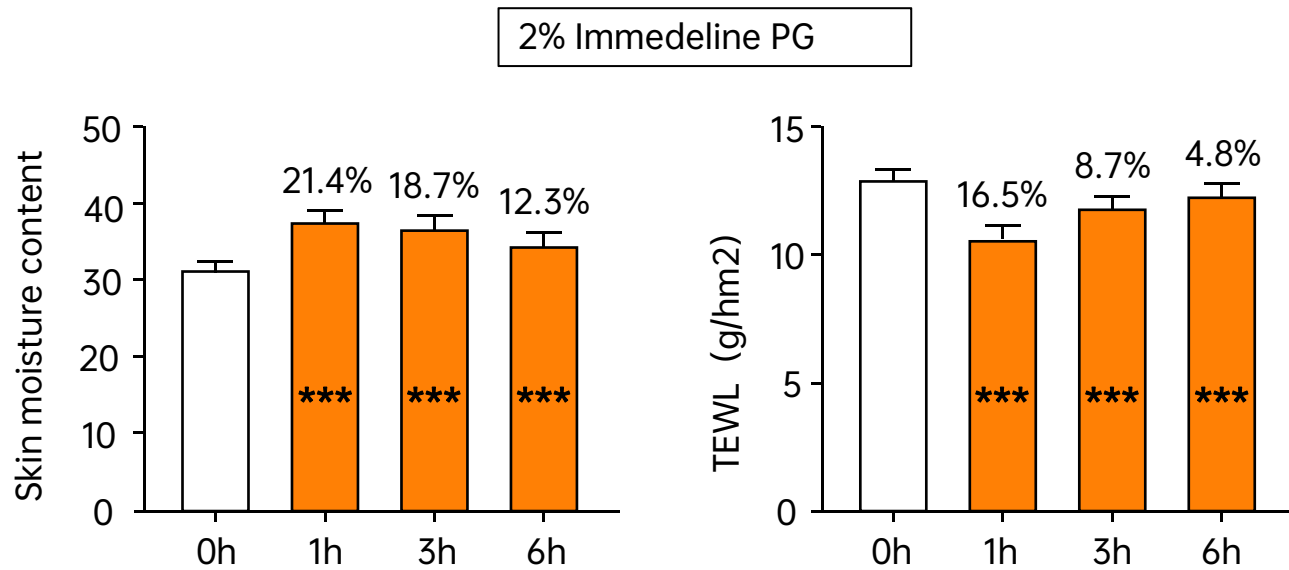
- Meaning of R2 (U_a/U_f)
- In vivo, cheekbones of a healthy person ($n=6$)
- Apply a base gel containing 10% Immedeline PG;
- Detect skin elasticity with MPA580 at different time points;
- Calculate skin elasticity growth rate and analyze statistical differences.

5 min skin elasticity **+16.9%**

at **2h**, skin elasticity is the best.

elasticity increases continuously for **8h**.

Moisturizing data



Compared with control group, ***means $P < 0.001$

Immedeline PG

Enhance skin moisture

- In vivo, arms of a healthy person (n=15)
- After equilibrium drying for 20 to 30 min in a constant temperature and humidity environment, apply products containing different concentrations of Immedeline PG;
- Sample is a 2% aqueous solution of Immedeline PG;
- Detect skin moisture content and TEWL respectively with CM825 and TM300 at 1h, 3h and 6h after application;
- Calculate the change rate of skin moisture related parameters and analyze statistical differences.

2% Immedeline PG can enhance the
moisturizing power of skin.

Safety verification

Safety model	Reference standard	Concentration	Results
STE Eye irritation model	SN/T-3084.2-2014	50%	√
Skin closed patch test	China Safety and Technical Standards for Cosmetic (2015)	20%	√
Skin sensitization - DPRA test	OECD TG 442C	100%	√
Skin sensitization – hCLAT test	OECD TG 442E	100%	√
Skin sensitization – KeratinoSens test	OECD TG 442D	100%	√

Multiple safety models have shown that Immedeline PG is an **extremely safe** ingredient for use on the face and around the eyes.

Specification

Appearance	Light yellow to brownish yellow liquid
Odor	Slight characteristic odor
pH (stock solution, 25°C)	4.0-6.5
Content of polysaccharide(UV)	≥ 5.0%
Density (stock solution, 20°C)	0.95-1.06 g/cm ³
Refractive index (stock solution, 20°C)	1.300-1.400
Recommended use level	2.0-5.0%
Shelf life	2 years



Applications

Good ingredients have to be put to good use in the right formula. Find the formula which is most suitable for Immeleline PG.

4



Immedeline PG

Meet the needs of different scenarios: dating, office, stage, etc.

Immedeline PG has excellent water solubility and is suitable for various formulations such as lotions, essences, gels and emulsions.



Product Design Concept



Target group: Initial aging people, night people, white-collar workers, lazy people

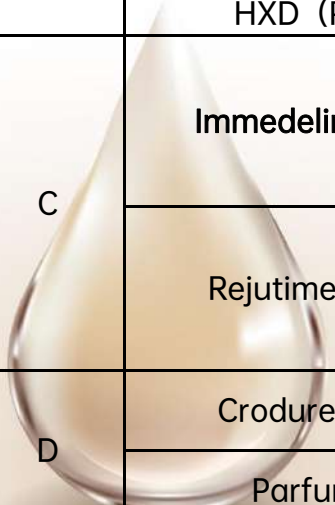
Active matter: Immedeline PG, Rejutine PTC

Odor type: Floral scent (THE QUEEN)

Revitalizing Serum for Full Face and Eye

Fine lines and sagging will gradually appear on initial aging skin. A bottle of Full Face and Eye Serum can meet the anti-aging needs of the face and the eyes at the same time. You don't have to worry about sagging skin, a drop of serum will make you look young and pretty.

Revitalizing Serum for Full Face and Eye



Items	Product Name	INCI Name	% W/W	Supplier
A	Water	Water	Increase to 100.00	-
	Disodium EDTA	Disodium EDTA	0.02	AKZO NOBEL
	Keltrol CG-T	Xanthan (peach) Resin Extract	0.50	CP KELCO
B	Butylene Glycol	Butylene Glycol	3.00	OXEA
	Microcare Antioxidant HAP	Hydroxyacetophenone	0.50	THOR
	Microcare Emollient HXD (P)	1,2-Hexanediol	0.50	THOR
C	Immedeline PG	Water, <i>Prunus persica (peach)</i> Resin Extract, 1,2-Hexanediol, Ethylhexylglycerin	10.00	JAKA
	Rejutime PTC	Water, Palmitoyl Tripeptide-5, Hydrolyzed Collagen, 1,2-Hexanediol, Ethylhexylglycerin	5.00	JAKA
D	Croduret 40	PEG-40 Hydrogenated Castor Oil	Appropriate amount	CRODA
	Parfum	Parfum	Appropriate amount	IFF

Conventional serum production process without difficulties in operation.

1. Heat phase A to 80°C-85°C, stir and mix well;
2. Cool down to about 45°C, add the pre-dissolved phase B, stir and mix well;
3. Cool down to about 40°C, add each component of phase C and the pre-dissolved phase D in turn, then stir well.

pH: 6.03

Viscosity: (2# 30 turns) 522 mPa.s

Product Design Concept

Lift and Firm Morning Gel

Nourish the skin,
no fear for time



Target group: Elites, white-collar workers

Active matter: Immedeline PG, Rejutine PTC

Odor type: Floral scent (THE QUEEN)

Lift and Firm Morning Gel

The perfect solution for elites working 8 hours a day: one gel in the morning can make your skin firm; one gel can meet the skin's tightness need for 8 hours; environmentally friendly packaging materials meet the sustainable development goals.

JAKA+

Lift and Firm Morning Gel

Items	Product Name	INCI Name	% W/W	Supplier
A	Water	Water	Increase to 100.00	-
	Disodium EDTA	Disodium EDTA	0.02	AKZO NOBEL
	Carbopol 980 Polymer	Carbomer	0.50	LUBRIZOL
B	Water	Water	4.05	-
	L-Arginine C	Arginine	0.45	AJINOMOTO
C	Butanediol	Butanediol	3.00	OXEA
	Microcare Antioxidant HAP	Hydroxyacetophenone	0.50	THOR
	Microcare Emollient HXD (P)	1,2-Hexanediol	0.50	THOR
D	Immedeline PG	Water, <i>Prunus persica</i> (peach) Resin Extract, 1,2-Hexanediol, Ethylhexylglycerin	5.00	JAKA
	Rejutime PTC	Water, Palmitoyl Tripeptide-5, Hydrolyzed Collagen, 1,2-Hexanediol, Ethylhexylglycerin	2.00	JAKA
E	Croduret 40	PEG-40 Hydrogenated Castor Oil	Appropriate amount	CRODA
	Parfum	Parfum	Appropriate amount	IFF

Conventional gel production process without difficulties in operation.

1. Heat phase A to 80°C, -85 °C, stir and mix well;
2. Cool down to about 45°C, add pre-dissolved phase B and pre-dissolved phase C in sequence, and stir and mix well;
3. Cool down to about 40°C, add each component of phase D and the pre-dissolved phase E in turn, then stir well.

pH: 6.54

Viscosity: (4# 6 turns) 102848 mPa.s

Marketing claims



Immdeline PG

Nourish skin with *Prunus persica* (peach)
Resin Extract, fearless of aging

Invention Patent No.: ZL202010359153.0

Natural botanical origin

- The pure zone of Jade Dragon Snow Mountain in Yunnan

Golden ration 4:1 for skin firming

- Discover the best ratio of *Prunus persica* (peach) *Resin* Extract polysaccharides for firming effect

Firming in 5mins, wrinkles are invisible in 8h

- Instant firming effect, long-lasting protection

Safe and preservative-free

- Multiple safety verification, simple ingredients and no preservatives



ARTICLE



ISO 16128



UNIQUE
PROCESS



NO PESTICIDE
RESIDUE



NO ALLERGENS



NON-GMO



China
Invention
Patent

Documents for Immedeline PG

Category	No.	Name of Document	Content
Profile	1	PPT	Detailed Profile
Technical Documents	2	FCRM	Full Composition of Raw Material
	3	MFC	Manufacturing Flowchart
	4	MOA	Method of Analysis (Company Standard)
	5	MSDS	Material Safety Data Sheet
	6	SP	Specification
	7	PA	Statement for pesticide absence
Raw Material Information	8	RMI	1) Basic information (Raw material NMPA submission code, recommended level, efficacy category, manufacturer information, etc.) 2) Composition and process (Natural index/natural origin index, impurities and other residues, etc.) 3) Storage and transportation (Storage conditions, corrosion challenge test, labeling regulatory statements in compliance with GHS/CLP, etc.) 4) Regulatory Information (Whether in compliance with national cosmetic regulations, a listing of chemical substances by countries, CITES Convention, Nagoya Protocol, HALAL, KOSHER, COSMOS, RSPO standard, PCPC registration, etc. or not.) 5) Safety and efficacy information (Safety assessment report, safety test data, ecotoxicological data, etc.)
Usage Guidance	9	PUG (Product Usage Guidance)	Compatibility and Stability Tests

Safety and efficacy reports for Immedeline PG

Safety reports

No.	project
1	Raw Material Safety Assessment- 20%
2	Skin Patch Test
3	Skin Sensitization - DPRA, hCLAT, KeratinoSens
4	Heavy Metals, Microorganisms, Allergens, Pesticide Residues
5	Skin Irritation - Epidermis Model
6	Eye Irritation - Corneal Model
7	Ultraviolet Absorption Spectrometry

Efficacy reports

No.	project
1	Efficacy test report for moisturizing effect
2	Efficacy test report for firming effect
3	Efficacy test report for anti-wrinkles

Award



Top 10 Innovative Ingredients Award

Disclaimer

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