

# Active Series

## For Skin Care

*Improved Skin Health  
With the “Grant Touch”*



*Grant Industries, Inc.*

# Grant's Active Series

If you are familiar with Grant Industries because of our silicone expertise and the "Grant Touch", then you may be surprised to learn that we also offer a new series of active delivery systems that include peptides, vitamins, botanical extracts, hydration polymers and wrinkle reducers.

For decades, Grant Industries has been the leading supplier of specialty silicone elastomers to the beauty care market. We take pride in listening to our customers and are always striving to provide products and solutions that exceed expectations. Our company is focused and optimized to rapidly develop custom products. We accomplish this by drawing upon technology from our existing product line and combining this with unique solutions derived from innovative sources outside our company.

*"We Listen, We Explore, We Create"*

*"Nos Audio , Nos Rimor , Nos Partum" (latin version)*

The initial feel of a product is critical to consumer appeal. Grant has mastered the art of elegant texture and product performance, while integrating ease of formulation into all product categories.

Our **Active Series** of cosmetic materials include breakthrough technology from our talented chemists and supply partners. Some of the external technologies include peptides, retinoids, InvisaSkin<sup>®</sup>, glycoconjugates, GABA and an extensive line of bioconverted botanicals.

**Grant's Active Series are available for the following skin care areas:**

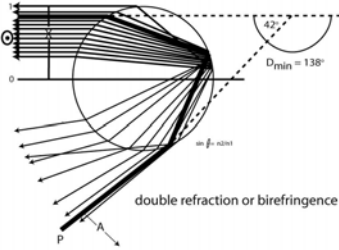
<i>Color:</i>	<b>Foundations, Concealers, Powders and Primers</b>
<i>Skin Care:</i>	<b>Anti-aging, Anti-acne, Creams, Lotions, Actives, Intensive Hydration Products and Daily Wear</b>

*Need a custom Grant Active Series product?*

*A product meeting your specific requirement is just an email or phone call away.*

# Active Series Summary

Product Description	INCI NAME	Application
<b>Instant Wrinkle Reduction</b>		
<b>GRANT-X</b> A multi-ingredient "performance matrix" that instantly reduces the appearance of wrinkles. Clinical test results show rapid improvement in achieving a smooth healthy look in all participants via nerve synapse interactions (GABA & botanicals), soft-focus optics and line-filling silicone polymers.	Cyclopentasiloxane (and) Water (and) Polysilicone-11 (and) Amino Butyric Acid (and) Barium Sulfate (and) Panax Ginseng Root Extract (and) Portulaca Oleracea Extract (and) Centella Asiatica Extract	Anti-Aging Daily Wear Color Cosmetics Wrinkle Treatment Face Lift Products
<b>Peptides</b>		
<b>InvisaSkin™ Matrix Rebuilder-O</b> An anti-aging skin care complex combining the activity of palmitoyl hexapeptide-14 and the botanically derived glycoconjugates (goji berry extract) with a rehydrating (InvisaSkin) polymer for a maximum synergistic effect rebuilding skin's extra cellular matrix.	Water (and) Butylene Glycol (and) Ethoxydiglycol (and) Dimethylacrylamide/Acrylic Acid/ Polystyrene Ethyl Methacrylate Copolymer (and) Palmitoyl Hexapeptide-14 (and) Lycium Barbarum Fruit Extract (Goji Berry)	Anti-Aging Daily Wear Color Cosmetics
<b>Granactive AGE</b> An anti-aging skin care complex combining the activity of palmitoyl hexapeptide-14 and glycoconjugates from goji berry extract for a maximum synergistic effect rebuilding skin's extra cellular matrix.	Water (and) Butylene Glycol (and) Ethoxydiglycol (and) Palmitoyl Hexapeptide-14 (and) Lycium Barbarum Fruit Extract (Goji Berry)	Anti-Aging Daily Wear Color Cosmetics Wrinkle Treatment Face Lift Products
<b>Granactive Hexapeptide</b> An anhydrous anti-aging delivery complex combining the matrix-fibroblast stimulation power of palmitoyl hexapeptide-14 with the line-filling silicone elastomer.	Cyclopentasiloxane (and) Polysilicone-11 (and) Ethoxydiglycol (and) Palmitoyl Hexapeptide-14	Color Cosmetics Daily Wear Anti-Aging
<b>Granactive Powder-168</b> A mineral based powder with catalytic anti-aging complex especially designed to stimulate cellular turnover and improve skin appearance.	Mica (and) Silica (and) Water (and) Ethoxydiglycol (and) Barium Sulfate (and) Peat Extract (and) Palmitoyl Hexapeptide-14 (and) Gold	Pressed Powders Daily Wear Anti-Aging Loose Powders
<b>Granactive™ ACNE</b> A botanical complex containing a patented antimicrobial peptide (Oligopeptide-10) for use in products associated with treating acne symptoms. Synergistic with salicylic acid for those desiring anti-acne claims.	Water (and) Butylene Glycol (and) Oryza Sativa (Rice) Bran Extract (and) Boswellia Serrata Extract (and) Honey Extract (and) Oligopeptide-10	Anti-Acne Daily Wear Toners
<b>Granactive Oligopeptide-10</b> An elastomer matrix featuring a patented anti-microbial, anti-acne peptide from plant amino acids use in a toner or other product to promote healthy skin tone.	Cyclopentasiloxane (and) Dimethicone (and) Water (and) Polysilicone-11 (and) Butylene Glycol (and) Decyl Glucoside (and) Oligopeptide-10	Anti-Acne Daily Wear Toners
<b>Retinoic Ester (Bioavailable Vitamin-A for Cosmetics)</b>		
<b>Granactive RD-101</b> Our flagship anhydrous delivery matrix containing 1% hydroxypinacolone retinoate in DMI and polysilicone elastomers gel for outstanding skin aesthetics and anti-aging performance.	Cyclopentasiloxane (and) Stearoxymethicone/dimethcone copolymer (and) Dimethyl Isosorbide (and) Dimethicone (and) Hydroxypinacolone Retinoate	Acne Treatment Daily Wear Anti-Aging
<b>Granactive Retinoid Fluid</b> Concentrated and easily formulated anhydrous matrix containing 10% of the pinacolyl ester of all-trans retinoic acid (tretinoin) in a premium delivery solvent.	Dimethyl Isosorbide (and) Hydroxypinacolone Retinoate	Acne Treatment Daily Wear Anti-Aging
<b>Granactive Powder-101</b> A hydroxypinacolone retinoate anti-aging mineral powder complex especially designed to stimulate cellular turnover and improve skin appearance.	Mica (and) Silica (and) Water (and) Dimethyl Isosorbide (and) Barium Sulfate (and) Hydroxypinacolone Retinoate (and) Peat Extract (and) Gold	Pressed Powders Daily Wear Anti-Aging Loose Powders



### Polysilicone-11 Instant Wrinkle Reduction Matrix

A multi-ingredient "performance matrix" that instantly reduces the appearance of wrinkles. Clinical test results show rapid improvement in achieving a smooth healthy look in all participants via nerve synapse interactions (GABA & botanicals), soft-focus optics and line-filling silicone polymers. Visible anti-aging results can be seen in reduction of lines and wrinkles along with an improvement in skin appearance. **In a cosmetic cream, Grant-X was clinically proven to reduce the appearance of facial lines and wrinkles by over 50% in all 15 panelists tested after just one ten minute application!** Grant-X instantly improves the skin feel perception during payout and transitions to that sought after powdery silicone-elastomer "Gransil Touch" with a soft-focus matte appearance. **Many users will experience a pleasant tingling sensation during application, which positively reinforces skin activity and supports brand loyalty!**

### Ingredient Contribution to Wrinkle/Fine Line Reduction

As shown below, each individual ingredient has been selected to contribute a different mechanism for wrinkle reduction and together they provide a highly effective regimen for skin smoothing.

#### Gamma Amino Butyric Acid (GABA)

- A known inhibitory neurotransmitter. Action potentials are triggered by a threshold level of depolarization
- Causes the opening of chemically regulated gated channels for Cl<sup>-</sup> and hyperpolarization (inhibitory postsynaptic potential)
- The final effect is relaxation of the facial nerve that can reduce wrinkles.

#### Portulaca Oleracea (Purslane) Extract

- Possesses unique skeletal muscle relaxant properties, which do not appear to involve interference with acetylcholine mechanisms.
- Extract may involve interference with Ca<sup>2+</sup> mobilization in skeletal muscle or inhibition of the release of calcium from stores in the sarcoplasmic reticulum.
- The final effect is relaxation of the muscle that can reduce wrinkles.

#### Panax Ginseng Extract

- Ginseng saponins, major active ingredients of ginseng root, produce multiple pharmacological responses, including reversible blocking of Na<sup>+</sup> channels
- Ginseng is considered an adaptogenic herb - which help the body adapt to stresses of various kinds.
- Contributes to wrinkle reduction

#### Centella Asiatica Extract

- Centella extract stimulates collagen synthesis, reduces fine lines and wrinkles and assists in eliminating dark under eye circles.

#### Cyclomethicone and Polysilicone-11

- A premium silicone-elastomer gel system with leading consumer sensory acceptance, wrinkle filling capability, matte appearance and oil absorption.

#### Barium Sulfate

- A fine inorganic particle of a discrete particle size and exact refractive index for soft focus optical effects in silicone gel systems.

### Features and Benefits:

- Enhanced GABA Synapse Properties
- Fine Line Elimination or Reduction
- Botanical-Ion Channel Interaction
- Instantaneous Wrinkle Reduction
- Analogous Performance to "Freeze-type" Products

### INCI Name:

Cyclopentasiloxane (and) Water (and) Polysilicone-11 (and) Amino Butyric Acid (and) Barium Sulfate (and) Panax Ginseng Root Extract (and) Portulaca Oleracea Extract (and) Centella Asiatica Extract

### Recommended Use Levels:

10 – 40%

(Grant's clinical's based on 35% use level)

### Safety:

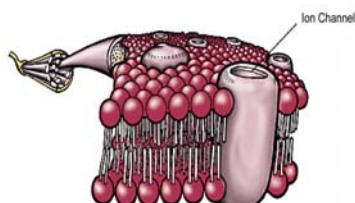
Non-irritating, Non-sensitizing  
Non-mutagenic

### Availability:

Globally

### Applications:

- Anti-aging
- After Sun
- Daily Wear



Representation of Cell Membrane

## Wrinkle Eliminator F-1245

**Grant-X** was clinically proven, in the following cosmetic cream, to gently improve the appearance of facial fine lines and wrinkles by over 50% in all of 15 panelists tested. Results available upon request.



**Great for all ages and skin types!**

**GRANT-X includes active ingredients that reversibly interact with wrinkle causing mechanisms, without relying on the acetylcholine switch as related to Botox®.**

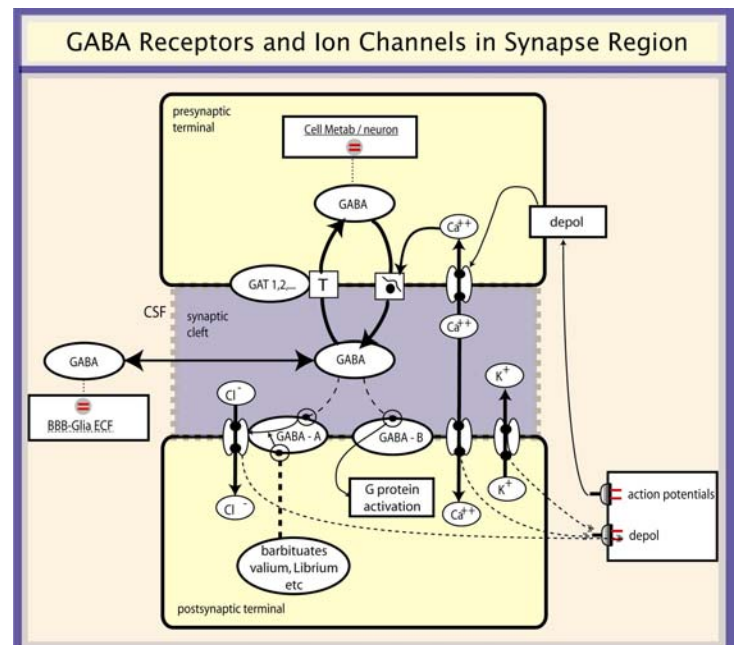
Botox is a registered trademark of Allergan, Inc.

Part	Ingredient	INCI Name	% (wt)	
<b>A</b>	Deionized Water	Water	36.6	
	1,3 Butylene Glycol	Butylene Glycol	5.00	
	Germazide C	Chlorphenesin	0.30	
	Amphisol K	Potassium Cetyl Phosphate	2.00	
	TEA	Triethanolamine	0.20	
	<b>B</b>	Luvitol EHO	Cetearyl Ethylhexanoate	5.00
<b>Grant-X</b>		Cyclopentasiloxane (and) Water (and) Polysilicone-11 (and) Amino Butyric Acid (and) Barium Sulfate (and) Panax Ginseng Root Extract (and) Portulaca Oleracea Extract (and) Centella Asiatica Extract	35.00	
Carnauba Wax		Copernicia Cerifera (Carnauba) Wax	1.90	
Phoenotaine C-35		Sodium Cocamidopropyl PG-Dimonium Chloride Phosphate	3.00	
Ceteth-20		Ceteth-20	1.00	
Biophilic-H (Lucas Meyer)		Hydrogenated Lecithin (and) C12-16 Alcohols (and) Palmitic Acid	3.00	
<b>C</b>		<b>Gransil PSQ</b>	Polymethylsilsesquioxane	5.00
		<b>Granthix APP</b>	Isohexadecane (and) Ammonium Polyacryloyldimethyl Taurate (and) Polysorbate-80	0.40
		Glyceryl Behenate	Glyceryl Behenate	1.00
		Preservative		qs
	<b>Total</b>		<b>100.00</b>	

### Procedure:

1. Mix part A well, heat to 75° - 80° C.
2. Heat part B to 85° - 90° C. Mix well.
3. Add part A to part B under homogenization
4. Add part C to part AB
5. Mix for 15 minutes at 85° - 90° C.
6. Cool batch to 25° C under mixing.

## GABA and Ion Channel Mechanism



**Grant-X**

# InvisaSkin<sup>®</sup> Matrix Rebuilder-O

*Restore and Rejuvenate*



## Patent pending Anti-Wrinkle Palmitoyl Hexapeptide-14 composition with plant derived glycoconjugates

InvisaSkin Matrix Rebuilder-O is an anti-aging skin care complex combining the activity of Palmitoyl Hexapeptide-14 and plant derived glycoconjugates (Goji berry extract) for a maximum synergistic effect rebuilding skin's extra cellular matrix. Multiple rebuilding pathways are activated including: collagen biosynthesis, fibroblast proliferation and inhibition of destructive matrix metalloproteinases. Anti-aging visible results can be seen in reduction of lines and wrinkles along with a large improvement in skin's elasticity. This ingredient utilizes InvisaSkin™ delivery technology to maximized efficacy and hydration.

### Palmitoyl Hexapeptide-14:

A short bioactive peptide consisting of six naturally occurring amino acids with a palmitoyl lipid attached for enhanced skin penetration

### INCI Name:

Water (and) Butylene Glycol (and) Ethoxydiglycol (and) Dimethylacrylamide/Acrylic Acid Polystyrene Ethyl Methacrylate Copolymer (and) Palmitoyl Hexapeptide-14 (and) Lycium Barbarum Fruit Extract (Goji Berry)

### Recommended Use Level:

10%

### Patent Status:

Patented Composition and Patent Pending Applications

### Safety:

Non-cytotoxic, Non-irritating, Non-sensitizing, Non-mutagenic

## Intracellular Matrix Function

Enhanced anti-wrinkle and lifting effect by stimulation of fibroblast and collagen synthesis and inhibition of MMP-9. Includes glycoconjugates and a peptide having immuno-modulatory functions that boost host gene expression, act as messengers, and induce chemokine production.



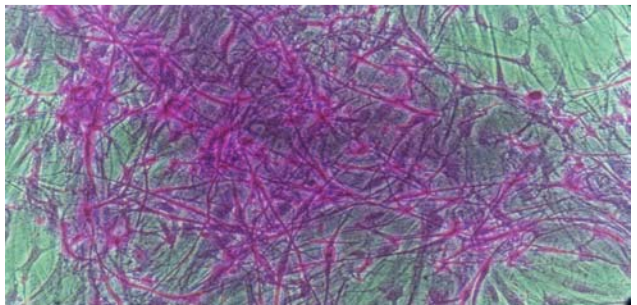
Left side: untreated

Right side: Matrix Rebuilder

Live Fibroblast Cells

## Mechanism

The presence of this anti-aging peptide and Goji berry glycoconjugate triggers specific natural intracellular messengers to up-regulate desired cellular activities that tend to otherwise diminish with age. The primary characteristic is a dermal fibroblast scaffolding effect that increases three-dimensional cell proliferation leading to dramatically increased skin elasticity and reduction of wrinkles.

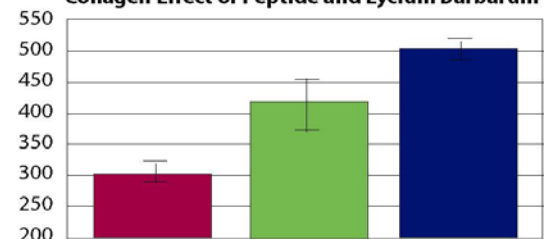


Sulforhodimine stained fibroblast cells. 3-D structure in center (treated area) vs monolayer on edges (untreated area)

## Targeted Effect and Delivery

Activates the growth of fibroblast cells and collagen production. Formulated so actives penetrate the epidermis and remain hydrated. Fibroblast messaging continues for up to 24-hours via the deliver package of peptide and glycoconjugate in a hydrated polymer matrix co-formulated with a penetration enhancing emollient.

Collagen Effect of Peptide and Lycium Barbarum



Type I Collagen Production

■ Goji extract fract. (1.25 mg/ml)

■ Pal-Hexapeptide-14 (0.2 mg/ml)

■ Goji extract fract. + peptide (1.25 + 0.2 mg/ml)

**Availability:**

Globally

**Applications:**

Wrinkle treatment, anti-aging and face lift products in serum, gel cream and lotion forms.

**Formulation:**

Water Dispersible

**Demo Formulation:**

Available by Request

**Tibetan Goji Berry**

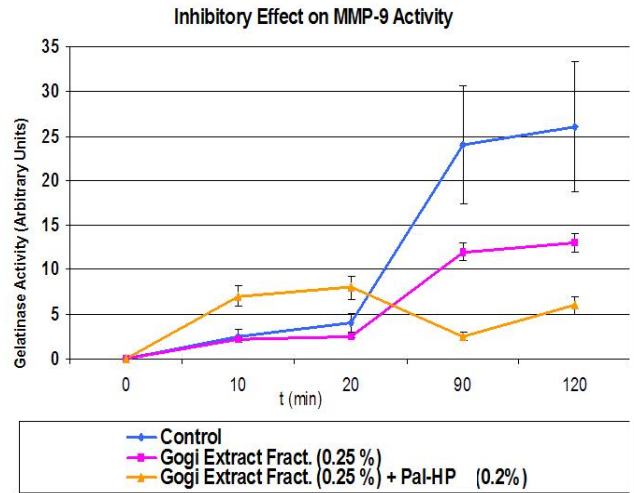


**MMP-9 Inhibition**

**Matrix Metalloproteinase Inhibition**

Collagenase activity was measured with a Enzchek kit from Molecular Probes (Invitrogen) using quenched fluorescent gelatin and human metallo-proteinase-9 preparation. The release of the digested, fluorescent gelatin in the presence of different test materials was measured at excitation/emission wavelengths 485/530nm with Millipore fluorometer.

The combination of palmitoyl-hexapeptide-14 and goji berry extract significantly inhibited MMP-9.



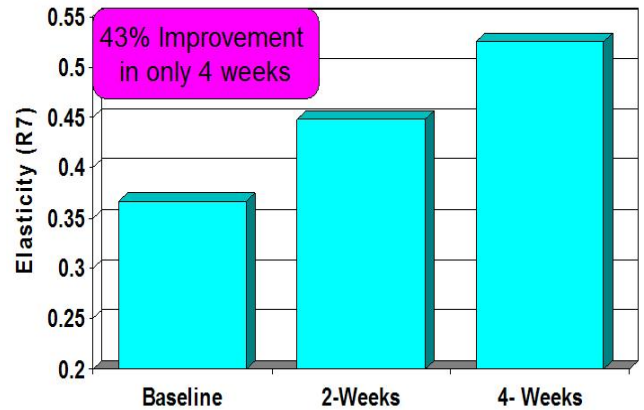
**Skin Toning and Elasticity**

Increased elastin production firms up skin and helps in recovery from aging, stress and UV damage. Skin firmness and resiliency are assessed by cutometry, which measures the elastic response of the skin over time. A higher degree of elasticity helps lift sags and improve the overall tone of the skin, resulting in a more youthful appearance

**Matrix Rebuilder-O**

Exhibits a statistically relevant elasticity improvement in only four weeks in AMA lab clinical test.

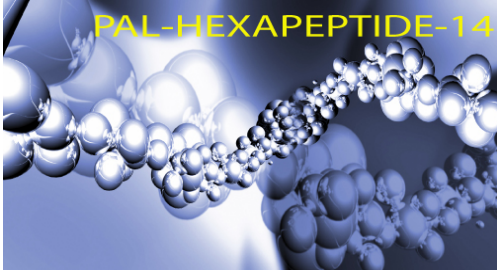
**Skin Elasticity by Cutometry**



*InvisaSkin<sup>®</sup> Matrix Rebuilder-O*

# Granactive AGE

## Anti-Aging Peptide Complex



### Patent pending Anti-Wrinkle Palmitoyl Hexapeptide-14 Composition with Plant-derived Glycoconjugates

Granactive AGE is an anti-aging skin care complex combining the activity of Palmitoyl Hexapeptide-14 and plant derived glycoconjugates (Goji berry extract) for a maximum synergistic effect rebuilding skin's extra cellular matrix. Multiple rebuilding pathways are activated including: collagen biosynthesis, fibroblast proliferation and inhibition of destructive matrix metalloproteinases. Anti-aging visible results can be seen in reduction of lines and wrinkles along with an improvement in skin's elasticity. This ingredient can be combined with InvisaSkin DS for increased delivery efficacy and other sensory benefits.

#### Palmitoyl Hexapeptide-14:

A short bioactive peptide consisting of six naturally occurring amino acids with a palmitoyl lipid attached for enhanced skin penetration

#### INCI Name:

Water (and) Butylene Glycol (and) Ethoxydiglycol (and) Palmitoyl Hexapeptide-14 (and) Lycium Barbarum Fruit Extract (Goji Berry) (and) Sodium Benzoate

#### Recommended use level:

5% (Typical)



#### Patent Status:

Patented Composition and Patent Pending Applications

### Intracellular Matrix Function

Enhanced anti-wrinkle and lifting effect by stimulation of fibroblast and collagen synthesis and inhibition of MMP-9. Includes glycoconjugates and a peptide having immuno-modulatory functions that boost host gene expression, act as messengers, and induce chemokine production.



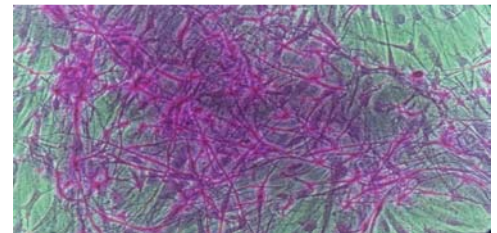
Untreated

Granactive AGE Treated

Live Fibroblast Cells

### Mechanism

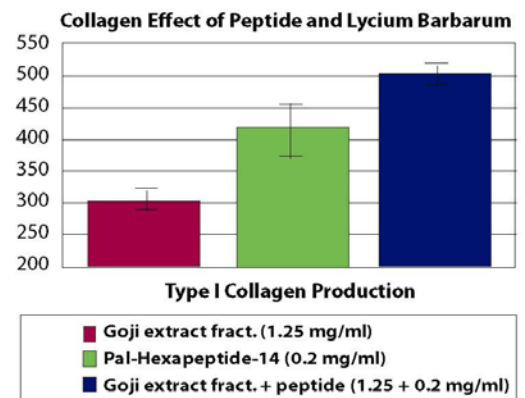
The presence of this anti-aging peptide and goji berry glycoconjugate triggers specific natural intracellular messengers to up-regulate desired cellular activities that tend to otherwise diminish with age. The primary characteristic is a dermal fibroblast scaffolding effect that increases three-dimensional cell proliferation leading to dramatically increased skin elasticity and reduction of wrinkles.



Sulfurhodimine stained fibroblast cells. 3-D structure in center (treated area) vs monolayer on edges (untreated area)

### Targeted Effect and Delivery

Activates the growth of fibroblast cells and collagen production. Formulated so actives penetrate the epidermis and remain hydrated. Fibroblast messaging continues for up to 24-hours via the deliver package of peptide and glycoconjugate in a hydrated polymer matrix co-formulated with a penetration enhancing emollient.





**Safety:**

Non-cytotoxic, Non-irritating,  
Non-sensitizing, Non-mutagenic

**Availability:**

Globally

**Applications:**

Wrinkle treatment, anti-aging and face lift products in serum, gel cream and lotion forms.

**Formulation:**

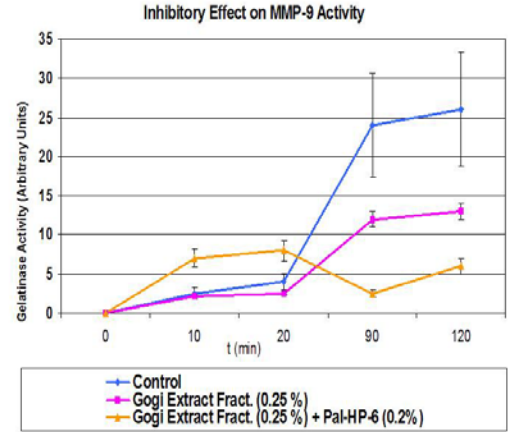
Water Dispersible  
(May combine with InvisaSkin DS for added hydration)

**Demo Formulation:**

Available by Request

**Matrix Metalloproteinase Inhibition**

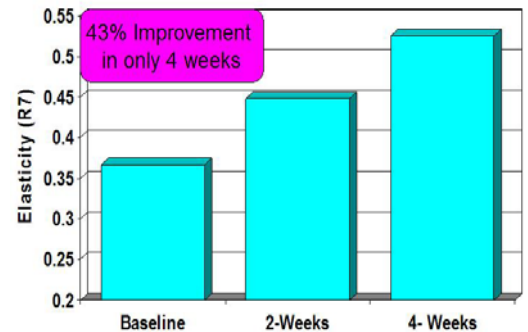
Collagenase activity was measured with Enzchek kit from Molecular Probes (Invitrogen) using quenched fluorescent gelatin and human metalloproteinase-9 preparation. The release of the digested, fluorescent gelatin in the presence of different test materials was measured at excitation/emission wavelengths 485/530nm with Millipore fluorometer. *The combination of Palmitoyl-hexapeptide-14 and Goji berry extract significantly inhibited MMP-9*



**Skin Toning and Elasticity**

Increased elastin production firms up skin and helps in recovery from aging, stress and UV damage. Skin firmness and resiliency are assessed by cutometry, which measures the elastic response of the skin over time. A higher degree of elasticity helps lift sags and improve the overall tone of the skin, resulting in a more youthful appearance

**Skin Elasticity by Cutometry**



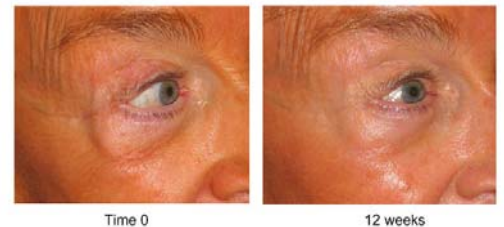
*Granactive AGE* exhibits a statistically relevant elasticity improvement in only four weeks in AMA lab clinical testing.



Tibetan Goji Berry

**Clinical anti-wrinkle effect**

A twelve-week human panel test of 29 subjects demonstrated that Palmitoyl Hexapeptide-14 is equivalent to RENOVA® (0.05% tretinoin) in reducing the appearance of fine lines and wrinkles with none of the irritation and redness caused by retinoid drugs.



*Granactive AGE*

# Granactive Hexapeptide

*Youthful Appearance  
And "Gransil Touch"*



## Features and Benefits:

- Maximized skin regenerative properties
- Clinical study proven wrinkle reduction
- Great sensorial aesthetics
- World class "Gransil Touch"
- Improved skin health

## INCI Name:

Cyclopentasiloxane (and) Polysilicone-11 (and) Ethoxydiglycol (and) Palmitoyl Hexapeptide-14

## Recommended Use Levels:

5 -10%

## Safety:

Non-irritating, Non-sensitizing  
Non-mutagenic

## Availability:

Globally

## Applications:

- Color Cosmetics
- Daily Wear
- Anti-Aging

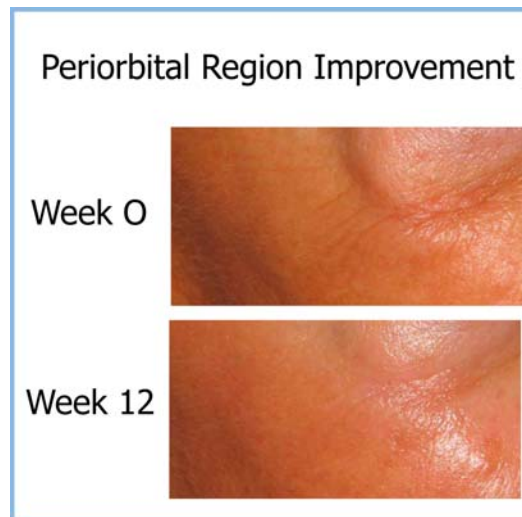
## Anti-Aging Silicone Polymer Matrix

**Granactive™ Hexapeptide** is a designer peptide based anti-aging complex that combines the matrix-fibroblast stimulation of palmitoyl hexapeptide-14 with polysilicone-11 which will instantly improve the skin feel perception during payout and transitions to that much sought after powdery silicone-elastomer "**Gransil Touch**". Palmitoyl hexapeptide-14 is a short bioactive peptide modified with palmitoyl for enhanced delivery and has proven to be a superb ingredient for stimulating collagen production and proliferating fibroblast cells while inhibiting MMPs. **Granactive™ Hexapeptide** can be used in both emulsions and anhydrous based systems for comprehensive anti-aging function of reducing the appearance of fine lines and wrinkles, while eliminating dull and dry skin by rebuilding the extra-cellular matrix.

## PEPTIDE GEL vs RENOVA® WRINKLE/FINE LINE COMPARATIVE STUDY

### Study Aim:

A 12-week split-face, double-blind study comparing the efficacy of a palmitoyl hexapeptide-14 gel with tretinoin (retinoic acid) cream (0.05%) in the correction of fine lines and wrinkles.



### Results:

All of the five investigators rated the peptide equal to or more effective than tretinoin cream in regard to therapy for fine lines and wrinkles of the periorbital region.

# Granactive Powder-168

Anti-Aging Powder



## Features and Benefits:

- Maximized skin regenerative properties
- Clinical study proven wrinkle reduction and skin brightening
- Great sensorial aesthetics
- Improved skin health

## INCI Name:

Mica (and) Silica (and) Water (and) Ethoxydiglycol (and) Barium Sulfate (and) Peat Extract (and) Palmitoyl Hexapeptide-14 (and) Gold

## Recommended Use Levels:

5 -10%

## Safety:

Non-irritating, Non-sensitizing  
Non-mutagenic

## Availability:

Globally

## Applications:

- Pressed Powders
- Daily Wear
- Anti-Aging
- Loose Powders

"An absolute first...

...loose powders providing a clinical level of peptide activity"

## Peptide Powder for Youthful Skin

**Granactive Powder 168** is a powdered anti-aging complex that combines the matrix-fibroblast stimulation and collagen growth of palmitoyl hexapeptide-14 with plant derived fulvic acid (peat extract) to maximize the restorative powers of the skin's extra-cellular matrix. It includes 24 carat colloidal gold to facilitate the electrolytic transfer between trace minerals and the skin's natural metallic-based electrolytes.

**Granactive Powder-168** is a catalytic anti-aging complex especially designed to stimulate cellular turnover and improve skin appearance in loose and pressed powder applications.

A human panel test using the powder formula demonstrates visible anti-aging results can be observed in just 4 weeks.

The chart shows a pronounced reduction of lines and wrinkles.

Researchers also noted improved skin brightening.

## Clinical Anti-aging Study



## Anti-Wrinkle Peptide Powder

Part	Ingredient	Wt (%)
A	Soft Talc	70.0
	Mica LTM-102	10.0
	Zinc Stearate	2.0
	<b>Granpowder USQ</b> (Polymethylsilsesquioxane (and) HDI/Trimethylol Hexyllactone Crosspolymer)	5.0
	SXI-5 (Mica (and) Dimethicone (and) Silica - US Cosmetics)	1.5
	Red Iron Oxide	0.3
	Yellow Iron Oxide	1.0
	Black Iron Oxide	0.1
	<b>Granactive Powder-168</b> (Mica (and) Silica (and) Water (and) Ethoxydiglycol (and) Barium Sulfate (and) Peat Extract (and) Palmitoyl Hexapeptide-14 (and) Gold)	5.0
	B	Coco Caprylate/Caprata
Isopropyl Isostearate		2.0
Preservative		qs
<b>Total</b>		<b>100.0</b>

## Procedure:

- 1) Grind part A until consistent color and texture
- 2) Add part B to part A and continue grinding until smooth texture.

# Granactive ACNE

Clear Healthy  
Skin Products



## New Approach to Treating Acne

### Oligopeptide-10

A short bioactive peptide consisting of fifteen naturally occurring amino acids that provides anti-microbial activity against p-acne bacterium

### INCI Name:

Water (and) Butylene Glycol (and) Oryza Sativa (Rice) Bran Extract (and) Boswellia Serrata extract (and) Honey Extract (and) Oligopeptide-10

**Use Level:** 5%

### Patent Status:

Patent Pending Application

### Safety:

Non-cytotoxic, Non-mutagenic, Non-irritating, Non-sensitizing

**Availability:** Globally

### Applications:

Anti-acne\* therapy products in serum, gel cream and lotion forms.

### Formulation:

Water Dispersible

### Maximum Bacteria (*P. acne*) Kill

Including antibiotic resistant bacterium

### Non-drying, Fast acting

Aesthetically Pleasant Coverage

### Non-comedogenic

The unique combination of botanicals and anti-microbial peptide offers a gentle approach to treating the symptoms of acne.

## Patent Pending Antimicrobial Oligopeptide-10 Botanical Complex for Acne Treatment

**Granactive ACNE** is botanical complex containing a patented antimicrobial peptide for use in products associated with treating acne symptoms. This product can be formulated with an approved OTC acne ingredient, like salicylic acid or simply used in a toner or other product for maintenance of the skin. Oligopeptide-10 is an anti-microbial peptide derived from plant amino acids that is highly synergistic with salicylic acid. This allows salicylic acid to be effectively formulated at 0.5%, the lowest permissible level as defined in CFR Vol. 56, No.159 §333.310c, the monograph for acne treatments. In comparison, other products formulated near the 2% salicylic acid level are more irritating. Salicylic acid is comedolytic as it opens up the infected pores to allow oxygen in. This action allows access of oligopeptide-10 into the pores for a maximum bacteriostatic effect. Oligopeptide-10 has broad-spectrum activity against many types of organisms, including the *p. acne* bacterium. Rice bran, boswellia serrata and honey botanical extracts are included to soothe and smooth the skin.

## Targeted Effect and Delivery

Human skin is comprised of two major classes of innate immunity peptide,  $\beta$ -defensins and cathelicidins (LL-37).

Inflammation is often associated with skin conditions that have bacterial involvement, which is in part due to lipopolysaccharide (LPS) released from the outer membrane of gram-negative bacteria, and lipotechoic acid (LTA) released from gram-positive bacteria.

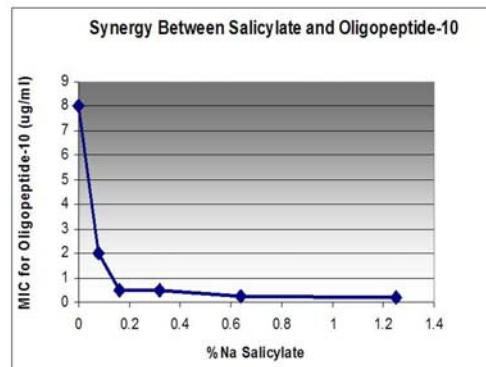
Innate immunity peptides such as defensins and LL-37 are known for binding and neutralizing bacterial debris.

[This effect down regulates pro-inflammatory cytokines, thereby reducing irritation potential.](#)

Consistent with this LL-37 has also been shown to modulate the toll-like receptor (TLR) mediated inflammatory response. Oligopeptide-10 is a synthetic peptide designed to bind LTA.

## Synergy Between Salicylate and Antimicrobial Peptide

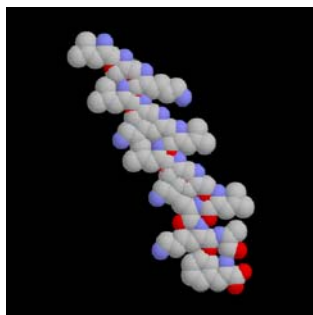
A study of sodium salicylate added to oligopeptide-10 solutions found the salicylate was instrumental in synergistically lowering the minimum inhibitory concentration requirement for the peptide. In other words, 0.5% salicylate is all that is required to meet the FDA guidelines and still cause an 8X decrease in the amount of peptide required to kill over 50% of the bacteria. This study exhibits the efficacy and value possible in using salicylates with a peptide level of >2 ug/ml.



\*must be co-formulated with an approved anti-acne active as subject to regional codes and laws.

# Granactive Oligopeptide-10

Anti-Acne and  
Daily Wear



Oligopeptide-10 (the peptide INCI name) is a short bioactive peptide consisting of naturally occurring amino acids that provides anti-microbial activity against p-acne bacterium

## Features and Benefits:

- Ready to dilute into an active containing water phase or improving an existing o/w emulsion
- Immediate perceptible difference in skin feel – smooth feeling initial then transitions to powdery soft “*Gransil Touch*”
- Contains Oligopeptide-10, an antimicrobial peptide originally designed as a co-ingredient for healing and acne treatments
- Cold processable in water based high performance systems

## INCI Name:

Cyclopentasiloxane (and) Dimethicone (and) Water (and) Polysilicone-11 (and) Butylene Glycol (and) Decyl Glucoside (and) Oligopeptide-10

## Recommended Use Levels:

10 - 30 %

## Safety:

Non-irritating, Non-sensitizing  
Non-mutagenic

## Availability:

Globally

## Applications:

- Anti-Acne\*
- Daily Wear
- Toners

## Formulation Advice:

Easily formulated in water systems at 60°C or below.

## High Performance Polymer Matrix For Anti-acne

**Granactive Oligopeptide-10** is a silicone-elastomer matrix featuring a patented anti-microbial peptide from plant amino acids. **Granactive Oligopeptide-10** can be formulated with an approved OTC acne ingredient, like salicylic acid, or simply used in a toner or other product for healthy maintenance of the skin. While it has excellent activity against the p-acne bacterium, it was found to be highly effective in combination with salicylic acid. This allows salicylic acid to be synergistically formulated near the 0.5% level, the lowest permissible use level for ACNE treatment. In comparison, other products formulated near the 2% salicylic acid level are much higher in irritation. Salicylic acid is comedolytic, opening up the infected pores to allow oxygen in. This action enables Oligopeptide-10 free access into the pores for a maximum bacteriostatic effect. Promotes healthy skin tone while treating the consumer to a sophisticated skin feel.

## Oligopeptide-10 Acne Treatment Formula

Part	Ingredient	INCI Name	wt %
	Deionized Water	Water	59.05
	Natrosol 250M	Hydroxyethylcellulose	0.10
	Butylene Glycol	Butylene Glycol	15.00
	Tween-20	Polysorbate 20	0.15
	Plantaren 2000	Decyl Glucoside	0.20
	Salicylic Acid	Salicylic Acid	0.50
	Diocide	Caprylyl Glycol (and) Phenoxyethanol (and) Hexylene Glycol	0.50
	<b>Granthix APP</b>	Isohexadecane (and) Ammonium Polyacryloyldimethyl Taurate (and) Polysorbate 80	4.50
<b>B</b>	<b>Granactive Oligopeptide-10</b>	Cyclopentasiloxane (and) Dimethicone (and) Water (and) Polysilicone-11 (and) Butylene Glycol (and) Decyl Glucoside (and) Oligopeptide-10	20.00
<b>Total:</b>			<b>100.00</b>

Procedure:

1. Add ingredients of part A, mix with side sweep agitation.
2. Add part B to part A with side sweep agitation, mix for 30 min.

**Note:** If you are interested in a non-silicone based ACNE treatment, consider **Granactive ACNE**, an aqueous solution containing the proven anti-microbial peptide (INCI name oligopeptide-10) for use in products associated with the treatment of acne. We recommend co-formulating this product with salicylic acid and **InvisaSkin® DS** for optimal performance, delivery and treatment.

\*must be co-formulated with an approved anti-acne active as subject to regional codes and laws.



## Recommended Use Level

1% to 10%

## Patent Status:

US 4,885,311 and Patent Pending Applications

## Safety:

Non-irritating, Non-mutagenic and Non-sensitizing



## Availability:

Globally

## Applications:

Anti-aging and anti-acne\* therapy products in serum, gel, cream and lotion forms.

\*must be co-formulated with an approved anti-acne active as subject to regional codes and laws.

## Formulation:

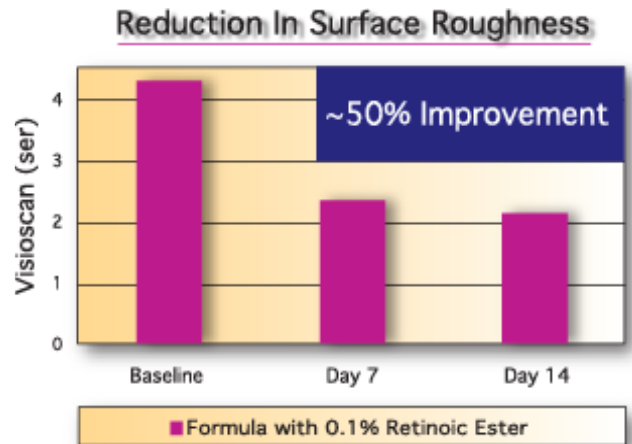
Oil Dispersible

## Surface Roughness and Overall Skin Condition Improvements

Significant skin surface roughness improvements occurred within one or two weeks of using this product.

About 50% improvement was noted.

During the ending survey, 100% of participants responded that skin roughness, dryness, tone, radiance, softness, firmness, tightness, elasticity and overall skin condition were significantly improved.

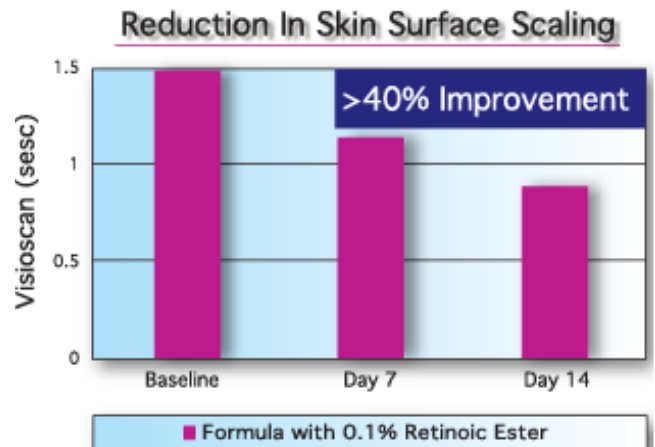


## Overall Skin Condition Improvements

Significant Improvements were noted in skin surface scaling, otherwise a potential indicator of irritation and dryness.

The method of formulating Granactive RD-101 yields an effective and winning formula without dryness or irritation.

80% of the panelist responded that this formula significantly reduced fine lines and wrinkles, diminished the appearance of age spots, skin discolorations and freckles and improved sun damaged skin.



# Granactive RD-101





# Granactive Powder-101

Healthy Skin Powders



## Features and Benefits:

- Catalytic anti-aging complex
- Great sensorial aesthetics
- Improved skin health

## INCI Name:

Mica (and) Silica (and) Water (and) Dimethyl Isosorbide (and) Barium Sulfate (and) Hydroxypinacolone Retinoate (and) Peat Extract (and) Gold

## Recommended Use Levels:

5 -10%

## Safety:

Non-irritating, Non-sensitizing  
Non-mutagenic

## Availability:

Globally

## Applications:

- Pressed Powders
- Daily Wear
- Anti-Aging
- Loose Powders



## Healthy Skin Matrix Powder

**Granactive Powder-101** is a powdered anti-aging complex that combines 1% of a pure ester form of tretinoin (that works similar to Retin-A<sup>®</sup> (TM Ortho Dermatological) *without the irritation*), with plant derived fulvic acid (peat extract) to maximize the restorative powers of the skin's extra-cellular matrix. It includes 24 carat colloidal gold to facilitate the electrolytic transfer between trace minerals and the skin's natural metallic-based electrolytes. **Granactive Powder-101** will decrease the effects of sunlight-induced aging and is a catalytic anti-aging complex especially designed to stimulate cellular turnover and improve skin appearance in loose and pressed powder applications.

## Anti Aging & Skin Lightening Pressed Powder (G101-611-1)

Part	Ingredient	Wt.%
A	Mica & Hydrogenated Lecithin	52.10
	Sericite & Hydrogenated Lecithin	10.00
	Zinc Myristate	7.00
	Kaolin & Dimethicone	5.00
	Silica & Dimethicone	6.00
	<b>Granactive Powder-101</b> (Mica (and) Silica (and) Water (and) Dimethyl Isosorbide (and) Barium Sulfate (and) Hydroxypinacolone Retinoate (and) Peat Extract (and) Gold	10.00
	Red Iron Oxide & Triethoxycaprylylsilane	0.30
	Yellow Iron Oxide & Triethoxycaprylylsilane	1.00
	Black Iron Oxide & Triethoxycaprylylsilane	0.10
B	Octyldodecyl Lactate	4.50
	Isopropyl Isostearate	3.00
	Preservative (Jeecide Cap-5)	1.00
		100.00

## Procedure:

- 1) Mix part A until consistent color and texture
- 2) Add part B to part A and continue mixing until smooth texture.

# Patents

## Peptide Compositions with Palmitoyl Hexapeptide-14

*US20070166267*  
*Anti-wrinkle composition*

## Peptide Compositions with Oligopeptide-10

*US20070207112*  
*Anti-acne composition*

*US6,875,744*  
*Short Bioactive Peptides*

## Granactive Powders

Patent Applied for  
*Anti-wrinkle composition*

## Hydroxypinacolone Retinoate

*US 4,885,311*

## Dimethylacrylamide/Acrylic Acid/ Polystyrene Ethyl Methacrylate Copolymer

*US 5,942,243*  
*Mucoadhesive Composition...*

*US20040143026*  
*Bioadhesive Composition...*

## ***Additional Active Series Information:***

**CONTAINS NO ALLERGENS:** Per the Cosmetics Directive (76/768/EEC) or annex II, III

**BSE/TSE STATEMENT:** No animal product or by-product was used in making these materials.

**HEAVY METALS AND PESTICIDES: All Products Certified to Meet < 5ppm** heavy metals and be pesticide free.

**GMO STATEMENT:** No Genetically Modified Organism or plant used in any feedstock.

**LATEX STATEMENT:** No Latex derived material used in any feedstock.

### **HYDROXYPINACOLONE RETINOATE (and most Vitamin-A Derivatives):**

In accordance to the Prop 65 labeling guidelines, formulating this substance at 0.1% by weight on an active basis into a cosmetic preparation **WILL NOT** subject the cosmetic to prop.65 labeling requirements or CMR labelling since the daily dosage would be considerably under the 10,000 IU daily dose limit as applied to retinol/retinyl esters.

This upper recommended use levels for Granactive Retinoid Fluid, Granactive RD-101 and Granactive Powder-101 are designed to provide 0.1% (or less) retinoate ester in the cosmetic. This would equate to 2400 IU / g retinol equivalent or less. Any warnings on the MSDS apply to the concentrated Grant Industries raw material prior to dilution into a cosmetic and apply to worker safety. Please contact the Grant Industries Regulatory dept for additional questions about standard industry practices for safely formulating retinoids.

### **ANIMALS WERE NOT USED IN ANY WAY IN THE DEVELOPMENT OR TESTING OF THESE PRODUCTS**

SAMPLES, SPECIFICATION SHEETS, MSDS'S and OTHER REGULATORY INFORMATION AVAILABLE UPON REQUEST

## *Other Recent Product Innovations:*

### Gransil SiW Series

**Gransil SiW-026** is surprisingly easy to add to aqueous phases, it provides significant energy savings in production, especially when incorporating it into a cold mix formula. This value added delivery form produces a modern silicone feel, without relying on heavy emulsifiers that could otherwise mask sensory properties or increase irritation or decrease active performance.

**Gransil SiW-043** enables the formulator to rapidly develop world-class creams and lotions with the "Gransil Touch". We also add just the right amount of octyldodecyl lactate to this product to serve a performance booster for sunscreens and actives for daily wear cosmetics. This perfect combination of elastomer gel and emollients balances initial feel, texture, play and active performance.

**Gransil SiW-050-IS** includes the moisture retaining **InvisaSkin**<sup>®</sup> polymer to provide the ultimate performance in skin feel and enduring hydration. It imparts a highly unique cushioning sensory benefit beyond that of the traditionally used silicone based products. This premium polysilicone elastomer/isododecane matrix maximizes the effective balance between initial and continuous sensory performance during payout and long-term wear.

**Gransil SiW-HA-IS** delivers vegetable derived sodium hyaluronate, an enduring moisturize retaining substance that is widely distributed in the extra-cellular medium of connective tissue. It contains the **InvisaSkin**<sup>®</sup> polymer which imparts a consistent increase in re-hydration and a highly unique, cushioning feel. The product shows exceptional sensorial aesthetics due to our Polysilicone-11 silicone-elastomer infused into a micro-dispersion that allows for quick and easy addition to the aqueous part of emulsions.

**Gransil SiW-TiO<sub>2</sub>** and **Gransil SiW-ZnO** are derived from our **UV-Cut** series of concentrated sunscreen micro-dispersions which yield high SPF values and maximize transparency on skin. This value added micro-dispersion delivery form produces a high SPF value, yields a uniform transparent film, provides great sensorial aesthetics and dramatically decreases the time it takes to develop an elegant, consumer acceptable product.

**Gransil SiW-CRT** is a concentrated micro-dispersion of almost 90% oil phase contained in a thickened aqueous external phase. The oil phase contains a significant amount of the copolymer of isobutylmethacrylate and dimethiconol in volatile isoparaffin. This product can be diluted in aqueous formulas including leave-on glazes, serums and conditioners. As the solvent vaporizes, the solution polymer dries quickly on hair to form a clear, glossy film that is flexible and breathable. The film exhibits outstanding adhesion and color retention properties to maintain the highest degree of vibrant color.

**Gransil SiW-PCA-10** is designed for easy addition into leave-on lotions, shampoos, rinse off conditioners and body cleansers. The pyrrolidone carboxylic acid group (an isomer of the natural moisturizing factor "PCA") is covalently bonded to a silicone polymer to improve compatibility between silicones and keratinous protein. The PCA group tenaciously holds moisture and forms ionic bonds with any free amino group on hair or skin. The final effect is a product that is easier to formulate at lower temperatures while providing a higher degree of slip, volume and conditioned hair.

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