

GRANSIL SiW SERIES

*Silicone-In-Water Dispersions
in Ready to Dilute Concentrates*

“Make Life Simple”



Skin Care & Actives



Sun Care & Daily Wear



Color Cosmetics



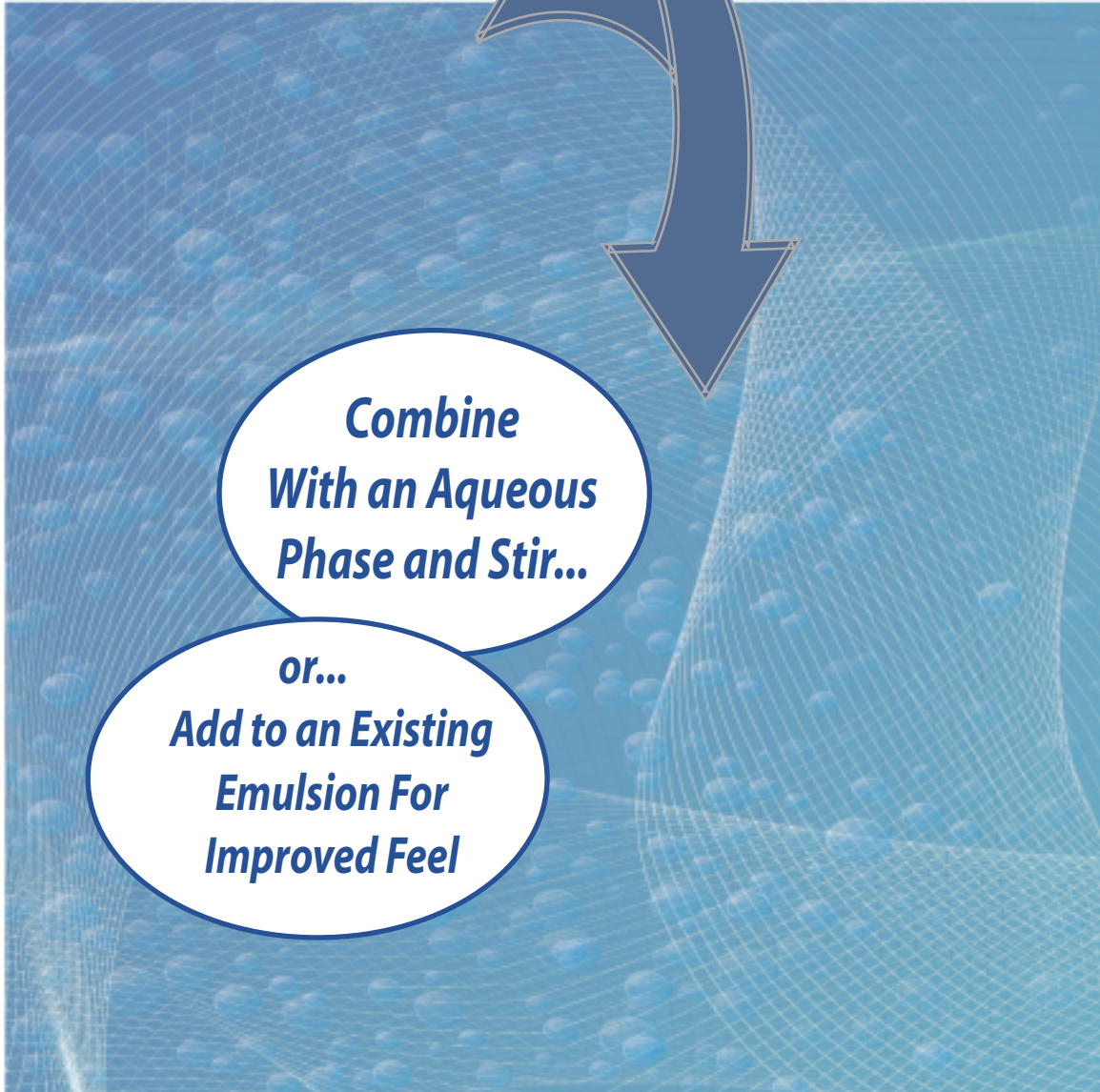
Hair Care

Grant Industries, Inc.

The Easiest Way to Include Silicones into World Class Products

GRANSIL SiW

Ready to Dilute



**Cold Process Compatible - Saves Production Resources
While Reducing the Workload of the Formulator**

Gransil SiW Series

Grant Industries is pleased to announce the ultimate product line of Silicone-in-Water micro-dispersions custom designed for formulation ease and the highest degree of elegance and aesthetics for the intended end-use application. The beauty industry serves the savvy, confident consumer and Grant Industries serves you, the savvy, confident formulator.

Polysilicone-11 elastomer gels are widely used in beauty products to add fantastic sensory properties to increase value and consumer acceptance. Gransil products are synonymous with prestige products and the “Gransil Touch” they deliver.

In the past, the formulator had to have considerable experience to make stable products containing high levels of elastomers and silicone fluids. Grant Industries has always strived for simpler and more productive ways to use our elastomers and offers easy to use formula bases (like ORB, WO, OW, SWM, LTX and others) that combine elastomer, solvent and emulsifier into one package. The Gransil SiW Series is the next advancement in formulating Silicone-in-Water (SiW) systems into modern cosmetics. Using a minimalistic approach, our proprietary process does away with most of the sensory drawbacks associated with traditional emulsifier-based formulations. It is cold mix compatible, although heat is acceptable if you need to process other materials. This allows mixing silicones and actives in creative ways that actually presents a new cosmetic palette of textures.

Our skin care products will dramatically improve the elegant perception during payout and “play” of your beauty care product. The final product transitions to a refined, powdery feel, with a soft-focus appearance, that enables your brand to stand out from other products on the market.

Ease of use, energy savings and enhanced cosmetic performance are only part of the value built into this line. Our favorable market position in innovative silicone technology permits us to offer this series of product at a cost point that should meet the most challenging formulation requirement.

Gransil SiW products are available for the following cosmetic areas that include:

- Skin Care:*** Anti-aging Creams and Lotions,
Specialty Active Delivery, Intensive Hydration Products and more
- Color Cosmetics:*** Transfer Resistant Foundations, Primers and Concealers
- Sun Care:*** TiO₂ / ZnO Based Daily Wear Cosmetics and Outdoor/Sun Products
- Hair Care:*** 2-in-1 Premixes of High Molecular Weight Silicones and
Hair Color Retention Technology

Need a custom Gransil SiW product? Please contact Grant Industries for more information.

SiW Series

"Make Life Simple"

Product Description	Related Product	INCI Name	Application
Skin Care			
Gransil SiW-026			
Combines performance, value and ease of use into one product. It allows the formulator to combine hydrophobic Polysilicone-11 elastomer into water-containing cosmetics at a cost point that should meet your most challenging formulation requirement.	Gransil GCM-5	Cyclopentasiloxane (and) Dimethicone (and) Water (and) Polysilicone-11 (and) Butylene Glycol (and) Decyl Glucoside	Facial Lotions Eye Creams Foundations Color Cosmetics Skin Care
Gransil SiW-041			
An SiW version that contains ethylhexyl hydroxystearate, a vegetable-derived occlusive emollient. It prevents excessive transepidermal water loss (TEWL), while dramatically increasing the hydration and elasticity of aged, dried and/or damaged skin.	Gransil OHS-5	Cyclopentasiloxane (and) Dimethicone (and) Polysilicone-11 (and) Ethylhexyl Hydroxystearate (and) Water (and) Butylene Glycol (and) Decyl Glucoside	Eye Creams Moisturizer Restoration Anti-aging Rejuvenators Spa Lines
Gransil SiW-043			
The SiW version of Gransil DMCM-5 gel. We then add just the right amount of octyldodecyl lactate to this product to boost the performance of sunscreens and actives for daily wear cosmetics.	Gransil DMCM-5	Dimethicone (and) Cyclopentasiloxane (and) Polysilicone-11 (and) Octyldodecyl Lactate (and) Water (and) Butylene Glycol (and) Decyl Glucoside	Active Delivery Daily Wear Anti-aging Foundations
Gransil SiW-050			
An easy to formulate polysilicone-11, isododecane concentrate specifically designed to deliver a light feeling formula without relying on cyclomethicones.	Gransil PC-12 & Gransil DM-5	Isododecane (and) Dimethicone (and) Polysilicone-11 (and) Coco-Caprylate/Caprate (and) Water (and) Butylene Glycol (and) Decyl Glucoside	Primers Foundations Color Cosmetics Eye Creams Facial Lotions
Gransil SiW-050-IS			
Featuring InvisaSkin® , the polymer that provides the ultimate performance in skin feel and enduring hydration. Simply elegant, it imparts a highly unique cushioning sensory benefit beyond that of silicones.	Gransil PC-12 & Gransil DM-5	Isododecane (and) Water (and) Dimethicone (and) Polysilicone-11 (and) Butylene Glycol (and) Dimethylacrylamide/Acrylic Acid/Polystyrene Ethyl Methacrylate Copolymer (and) Coco-Caprylate/Caprate (and) Decyl Glucoside	Foundations Color Cosmetics Eye Creams Facial Lotions Transfer Resistant Primers
Gransil SiW-053			
This perfect combination of polysilicone-11 gel and emollients balances initial feel, texture, play and active performance.	Gransil DMCM-5	Dimethicone (and) Cyclopentasiloxane (and) Polysilicone-11 (and) Water (and) Butylene Glycol (and) Decyl Glucoside	Daily Wear Anti-aging Foundations
Granactive Oligopeptide-10			
An elastomer matrix featuring a patented anti-microbial peptide from plant amino acids. Formulate with an approved OTC acne ingredient, like salicylic acid (0.5%), or simply use in a toner or other product to promote healthy skin tone.	Gransil GCM-5	Cyclopentasiloxane (and) Dimethicone (and) Water (and) Polysilicone-11 (and) Butylene Glycol (and) Decyl Glucoside (and) Oligopeptide-10	Anti-Acne Daily Skin Maintenance Toners

Product Summary

"Make Life Simple"

Product Description	Related Product	INCI NAME	Application
Sodium Hyaluronate			
Gransil SiW-HA			
Delivers vegetable-derived sodium hyaluronate, an enduring moisturizing substance that is widely distributed in the extra-cellular medium of connective tissue. Promotes improved skin elasticity while gently improving the appearance of fine lines and wrinkles.	Gransil GCM-5	Cyclopentasiloxane (and) Water (and) Dimethicone (and) Polysilicone-11 (and) Butylene Glycol (and) Sodium Hyaluronate (and) Decyl Glucoside	Moisturizers Eye Creams Facial Lotions Color Cosmetics Primers
Gransil SiW-HA-IS			
Contains the InvisaSkin polymer which imparts a consistent increase in rehydration and a highly unique, cushioning feel. Promotes improved skin elasticity while gently improving the appearance of fine lines and wrinkles from increased skin moisture and line filling effects.	Gransil GCM-5	Cyclopentasiloxane (and) Water (and) Polysilicone-11 (and) Butylene Glycol (and) Dimethylacrylamide/Acrylic Acid/Polystyrene Ethyl Methacrylate Copolymer (and) Sodium Hyaluronate (and) Decyl Glucoside	Moisture Restoratives Eye Creams Color Cosmetics Transfer Resistant Primers
Sun Care			
Gransil SiW-TiO2 & Gransil SiW-ZnO			
Derived from our UV-Cut series of concentrated sunscreen micro-dispersions to yield high SPF values, transparency and enhance the sensorial properties of beauty products. The SiW process allows the hydrophobic silicones to be added directly to water-based products to dramatically decrease the time it takes to develop an elegant, consumer ready product.	UV Cut TiO2 UV Cut ZnO-60	Gransil SiW-TiO2 Titanium Dioxide (and) Cyclopentasiloxane (and) Hexyl Laurate (and) Polyglyceryl-4 Isostearate (and) Water (and) PEG-10 Dimethicone (and) Butylene Glycol (and) Stearic Acid (and) Alumina (and) Decyl Glucoside Gransil SiW-ZnO Zinc Oxide (and) Cyclopentasiloxane (and) PEG-10 Dimethicone (and) Water (and) Butylene Glycol (and) Decyl Glucoside	Daily Wear Sunscreens Anti-Aging Creams Skin Lightening Products Color Cosmetics Primers
Hair Care			
Gransil SiW-CRT			
A concentrated silicone acrylate copolymer micro-dispersion contained in a gelled aqueous phase, designed specifically for color retention applications. The copolymer is entrained in volatile isoparaffin. This product can be diluted in aqueous formulas including leave-on glazes, serums and conditioners. As solvent evaporates, the solution polymer coats the hair to form a glossy, flexible barrier.	Granacrysil BMAS	Isododecane (and) Isobutylmethacrylate/Bis-Hydroxypropyl Dimethicone Acrylate Copolymer (and) Water (and) Butylene Glycol (and) Decyl Glucoside	Hair Color Retention Glazes Gloss Serums Conditioners Non-Transfer Make-Up Extended Wear Sun Products
Gransil SiW-PCA-10			
Gransil SiW-PCA-10 is designed for easy addition into leave-on lotions, shampoos rinse-off conditioners and body cleansers to maximize silicone deposition. The PCA group tenaciously holds moisture and forms ionic bonds with any free amino group on hair or skin to yield a product that is easier to formulate at low temperatures while providing a higher degree of slip, volume and conditioning.	Gransil PCA	Dimethicone (and) PCA Dimethicone (and) Water (and) Butylene Glycol (and) Decyl Glucoside	Shampoos Conditioners Body Cleansers

Gransil SiW-026

Value Enhanced
Polysilicone-11 Delivery

Features and Benefits:

- Ready to dilute into an active containing water phase or an existing o/w emulsion for improving the sensory profile
- Immediately improves perception in skin feel – cool feeling initially then transitions to a powdery soft “Gransil Touch”
- Value Adding Product
- Energy Saving Technology - Cold process friendly in high performance systems

INCI Name:

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

Recommended Use Levels:

10 – 50%

Safety:

Non-irritating, Non-sensitizing
Non-mutagenic

Availability:

Globally

Applications:

- Foundations
- Color Cosmetics
- Eye Creams
- Facial Lotions

Formulation Advice:

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

High Performance Silicone-Elastomer Matrix

Gransil SiW-026: performance, value and ease of use in one product.

This product is made using a unique dispersion technology that enables the formulator to rapidly combine the Polysilicone-11 elastomer into water containing cosmetics without heat. **Gransil SiW-026** is surprisingly easy to add to aqueous phases, even though it contains ~90% of a hydrophobic silicone-elastomer gel. 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-026** 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. Ease of use, energy savings and enhanced cosmetic performance are only part of the value built into this product. Our favorable market position in innovative silicone-elastomer gel technology permits us to offer this product at a cost point that should meet your most challenging formulation requirements.

Elegant, Cold Mix, Easy to Formulate Moisturizing Skin Lotion

Part	Ingredient	INCI Name	% (wt)
A	Deionized Water	Water	51.85
	Carbopol EDT 2020 Polymer	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	0.20
	Natrosol 250M	Hydroxyethylcellulose	0.10
	Butylene Glycol	Butylene Glycol	7.00
	Glycerin	Glycerin	3.00
	Triethanolamine	Triethanolamine	0.15
	Plantaren 2000	Decyl Glucoside	0.20
	Gransil PSQ	Polymethylsilsesquioxane	7.00
	Diocide	Caprylyl Glycol (and) Phenoxyethanol (and) Hexylene Glycol	0.50
B	Gransil SiW-026	Cyclopentasiloxane (and) Dimethicone (and) Water (and) Polysilicone-11 (and) Butylene Glycol (and) Decyl Glucoside	30.00
Total			100.00

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.

Gransil SiW-043

Optimized for
Active Delivery

Features and Benefits:

- Ready to dilute into an active containing water phase or an existing o/w emulsion for improving the sensory profile.
- Immediately improved perception in skin feel – cool feeling initially then transitions to a powdery soft silicone-elastomer feel with a soft matte appearance.
- Combined silicone and organic emollients for balanced feel and delivery
- Energy Saving Technology - Cold process friendly in high performance systems

INCI Name:

Dimethicone (and)
Cyclopentasiloxane (and)
Polysilicone-11 (and) Octyldodecyl
Lactate (and) Water (and) Butylene
Glycol (and) Decyl Glucoside

Recommended Use Levels:

10 – 35%

Safety:

Non-irritating, Non-sensitizing
Non-mutagenic

Availability:

Globally

Applications:

- Moisturizing Foundations
- Hydration Restoratives
- Anti-aging Creams
- Facial Lotions

Formulation Advice:

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

Note: As shown in the summary page, **Gransil SiW-053** is available for those not requiring octyldodecyl lactate, but still desiring the performance of **Gransil DMCM-5** in an SiW product.

Silicone-Elastomer Matrix For Active Boosting

SiW products **promote** the right mix of performance, value and ease when it comes to formulating silicone-elastomers into cosmetics. Based on innovative dispersion technology, **Gransil SiW-043** enables the formulator to rapidly develop world-class creams and lotions with the "**Gransil Touch**" (since it's actually derived from our popular Gransil DMCM-5). 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.

Age Restorative Cream

Part	Ingredient	INCI Name	% (wt)	
A	Deionized Water	Water	61.70	
	Carbopol Ultrez-10 Polymer	Carbomer	0.20	
	Natrosol 250	Hydroxyethylcellulose	0.10	
	Trehalose	Trehalose	1.00	
	Butylene Glycol	Butylene Glycol	7.00	
	Glycerin	Glycerin	3.00	
	Ammonium Hydroxide (28%)	Ammonium Hydroxide	0.30	
	Plantaren 2000	Decyl Glucoside	0.20	
	Granpowder USQ		Polymethylsilsesquioxane (and) HDI/Trimethylol Hexyllactone Crosspolymer	5.00
		Granactive AGE	Water (and) Butylene Glycol (and) Ethoxydiglycol (and) Lycium Barbarum Fruit Extract (and) Phenoxyethanol (and) Palmitoyl Hexapeptide-14 (and) Sodium Benzoate	5.00
B	Gransil SiW-043	Dimethicone (and) Cyclopentasiloxane (and) Polysilicone-11 (and) Octyldodecyl Lactate (and) Water (and) Butylene Glycol (and) Decyl Glucoside	15.00	
	Sepiplus 400	Polyacrylate (and) Polyisobutene (and) Polysorbate 20	1.50	
Total			100.00	

Procedure:

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

Gransil SiW-050-IS

Optimized for
Transfer Resistant
Color Foundations

Features and Benefits:

- Ready to dilute into an active containing water part or an existing o/w emulsion for improving the sensory profile
- Immediately improved perception in skin feel – cool feeling initially then transitions to a powdery soft “Gransil Touch”
- Provides long lasting continuous hydration of skin with InvisaSkin®
- Energy Saving Technology - Cold process friendly in high performance systems

INCI Name:

Isododecane (and) Water (and) Dimethicone (and) Polysilicone-11 (and) Butylene Glycol (and) Dimethylacrylamide/Acrylic Acid/Polystyrene Ethyl Methacrylate Copolymer (and) Coco-Caprylate/Caprata (and) Decyl Glucoside

Recommended Use Levels:

10 – 35%

Safety:

Non-irritating, Non-sensitizing
Non-mutagenic

Availability:

Globally

Applications:

- Foundations
- Color Cosmetics
- Eye Creams
- Facial Lotions

Formulation Advice:

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

Note:

For those applications not requiring the InvisaSkin polymer, use **Gransil SiW-050**. See product summary page for details.

High Performance Polymer Matrix

Gransil SiW-050-IS includes the moisture retaining **InvisaSkin®** polymer to provide the ultimate performance in skin feel and enduring hydration. Simply elegant, **Gransil SiW-050-IS** 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-050-IS** is ready to dilute into an emulsion for elegant use in most traditional and active containing beauty products.

Elegant Foundation for Color Based Formulation

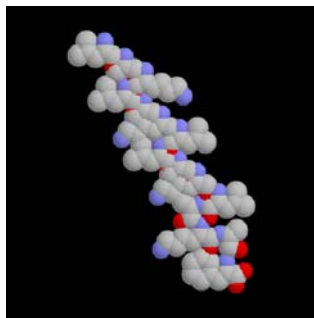
Part	Ingredient	INCI Name	wt %
A	Deionized Water	Water	15.10
	Veegum HV	Magnesium Aluminum Silicate	0.50
	Butylene Glycol	Butylene Glycol	7.00
	Diocide	Caprylyl Glycol (and) Phenoxyethanol (and) Hexylene Glycol	0.50
B	Amphisol K	Potassium Cetyl Phosphate	0.50
C	Deionized Water	Water	2.00
	Sodium Chloride	Sodium Chloride	0.40
D	Cetiol LC	Coco-Caprylate/Caprata	5.00
	DC 246	Cyclohexasiloxane (and) Cyclopentasiloxane	10.00
	DC 5225C	Cyclopentasiloxane (and) PEG/PPG-18/18 Dimethicone	15.00
	Abil WE-09	Polyglyceryl-4 Isostearate (and) Cetyl PEG/PPG -10/1 Dimethicone (and) Hexyl Laurate	3.00
	Biophilic H (Lucas Meyer)	Hydrogenated Lecithin (and) C12-16 Alcohol	1.00
E	Pigment Blend	Iron Oxides and Mica and Titanium Dioxide	10.00
F	Bentone Gel VS-5 PC	Cyclomethicone (and) Quaternium-18 Hectorite (and) Propylene Carbonate	5.00
G	Gransil SiW-50 IS	Isododecane (and) Water (and) Dimethicone (and) Polysilicone-11 (and) Butylene Glycol (and) Dimethylacrylamide/Acrylic Acid/Polystyrene Ethyl Methacrylate Copolymer (and) Coco-Caprylate/Caprata (and) Decyl Glucoside	25.00
Total			100.00

Procedure:

1. In side kettle, weigh water; under mixing add the rest of part A, mix for 15-30 min.
2. Add part B to part A, heat to 75-80°C.
3. Add part C to AB @ 75-80°C.
4. In main kettle equipped with homogenizer, weigh part D. Heat to 75-80°C and mix.
5. Micro-pulverize Part E, add part E to D, mix until dispersed.
6. Add part F to part DE, mix well.
7. Add part ABC to DEF @ 75-80°C under homogenization. Mix for 15 min.
8. Cool to 60°C. add part G, mix for 10 min. before final cooling.

Granactive Oligopeptide-10

*Sophisticated
Anti-Acne and
Daily Wear Products*



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 %
A	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
	Granthix APP	Isohexadecane (and) Ammonium Polyacryloyldimethyl Taurate (and) Polysorbate 80	4.50
B	Granactive Oligopeptide-10	Cyclopentasiloxane (and) Dimethicone (and) Water (and) Polysilicone-11 (and) Butylene Glycol (and) Decyl Glucoside (and) Oligopeptide-10	20.00
Total:			100.00

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.

Gransil SiW-HA

Optimized for Enhanced
Tinted Moisturizers

Features and Benefits:

- Ready to dilute into an active containing water phase or an existing o/w emulsion for improving the sensory profile
- Immediate perceptible skin feel – cool feeling initial then transitions to powdery “Gransil Touch”
- Energy Saving Technology - Cold processable in water based high performance systems

INCI Name:

Cyclopentasiloxane (and) Water (and) Dimethicone (and) Polysilicone-11 (and) Butylene Glycol (and) Sodium Hyaluronate (and) Decyl Glucoside

Recommended Use Levels:

5 –30 %

Safety:

Non-irritating, Non-sensitizing
Non-mutagenic

Availability:

Globally

Applications:

- Moisturizers
- Eye Creams
- Facial Lotions
- Color Cosmetics

Formulation Advice:

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

High Performance Polymer Matrix

Gransil SiW-HA delivers vegetable derived sodium hyaluronate, an enduring moisturizing substance that is widely distributed in the extracellular medium of connective tissue. 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-HA** will lead to improved skin elasticity while gently improving the appearance of fine lines and wrinkles from increased skin moisture and line filling effects.

Youthful Moisturizer Formula (Cold Mix)

Part	Ingredient	INCI Name	wt %
A	Deionized Water	Water	73.10
	Carbopol Ultrez 10 Polymer	Carbomer	0.25
	Natrosol 250HHR	Hydroxyethylcellulose	0.20
	Granpowder USQ	Polymethylsilsesquioxane (and) HDI/Trimethylol Hexyllactone Crosspolymer	5.00
	Plantaren 2000	Decyl Glucoside	0.10
	Triethanolamine (99%)	Triethanolamine	0.15
	Granthix APP	Isohexadecane (and) Ammonium Polyacryloyldimethyl Taurate (and) Polysorbate 80	0.20
	Butylene Glycol	Butylene Glycol	7.00
	Glycerin	Glycerin	3.00
	Diocide	Caprylyl Glycol (and) Phenoxyethanol (and) Hexylene Glycol	1.00
B	Gransil SiW-HA	Cyclopentasiloxane (and) Water (and) Dimethicone (and) Polysilicone-11 (and) Butylene Glycol (and) Sodium Hyaluronate (and) Decyl Glucoside	10.00
Total			100.00

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.

Gransil SiW-HA-IS

Optimized for Enhanced
Restorative Moisturizers

Features and Benefits:

- Ready to dilute into an active containing water part or an existing o/w emulsion for improving the sensory profile
- Immediately improved perception in skin feel – cool feeling initially then transitions to a powdery soft “*Gransil Touch*”
- Provides long lasting continuous hydration of skin with **InvisaSkin**[®]
- Energy Saving Technology - Cold process friendly in high performance systems

INCI Name:

Cyclopentasiloxane (and) Water (and) Polysilicone-11 (and) Butylene Glycol (and) Dimethylacrylamide/Acrylic Acid/ Polystyrene Ethyl Methacrylate Copolymer (and) Sodium Hyaluronate (and) Decyl Glucoside

Recommended Use Levels:

5 –30 %

Safety:

Non-irritating, Non-sensitizing
Non-mutagenic

Availability:

Globally

Applications:

- Tinted Moisturizers
- Eye Creams
- Facial Lotions
- Color Cosmetics

Formulation Advice:

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

High Performance Long lasting Polymer Matrix

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. **Gransil SiW-HA-IS** contains the **InvisaSkin**[®] 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-HA-IS** will lead to improved skin elasticity while gently improving the appearance of fine lines and wrinkles from increased skin moisture and line filling effects.

Sophisticated Tinted Moisturizer

Part	Ingredient	INCI Name	wt %
A	Deionized Water	Water	11.10
	Veegum HV	Magnesium Aluminum Silicate	0.50
	Butylene Glycol	Butylene Glycol	7.00
	Diocide	Caprylyl Glycol (and) Phenoxyethanol (and) Hexylene Glycol	0.50
B	Amphisol K	Potassium Cetyl Phosphate	0.50
C	Deionized Water	Water	2.00
	Sodium Chloride	Sodium Chloride	0.40
D	Cetiol LC	Coco-Caprylate/Caprates	5.00
	DC 246	Cyclohexasiloxane (and) Cyclopentasiloxane	10.00
	DC 5225C	Cyclopentasiloxane (and) PEG/PPG-18/18 Dimethicone	15.00
	Abil WE-09	Polyglyceryl-4 Isostearate (and) Cetyl PEG/PPG -10/1 Dimethicone (and) Hexyl Laurate	3.00
	Biophilic H (Lucas Meyer)	Hydrogenated Lecithin (and) C12-16 Alcohols (and) Palmitic Acid	1.00
	Montanov 68	Cetearyl Alcohol (and) Cetearyl Glucoside	1.00
E	Pigment Blend	Iron Oxides and Mica and Titanium Dioxide	10.00
F	Bentone Gel VS-5PC	Cyclomethicone (and) Quaternium-18 Hectorite (and) Propylene Carbonate	3.00
G	Gransil SiW-HA-IS	Cyclopentasiloxane (and) Water (and) Dimethicone (and) Polysilicone-11 (and) Butylene Glycol (and) Dimethylacrylamide/Acrylic Acid/ Polystyrene Ethyl Methacrylate Copolymer (and) Sodium Hyaluronate (and) Decyl Glucoside	30.00
Total			100.00

Procedure:

1. In side kettle, weigh water; under mixing add the rest of part A, mix for 15-30 min.
2. Add part B to part A, Heat to 75-80°C.
3. Add part C to AB @ 75-80°C.
4. In main kettle equipped with homogenizer, weigh part D. Heat to 75-80°C under homogenization.
5. Micro-pulverize part E, add E to D mix until dispersed.
6. Add part F to part DE, mix well.
7. Add part ABC to DEF @ 75-80°C under homogenization. Mix for 15 min.
8. Cool to 60°C, add part G, mix for 10 min.
9. Cool to 25°C.

Gransil SiW-TiO₂ & Gransil SiW-ZnO

Optimized for UV and
Daily Wear Products

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
- Provides long lasting continuous UV protection
- Cold processable in water based high performance systems

INCI Name:

Gransil SiW-TiO₂

Titanium Dioxide (and) Cyclopentasiloxane (and) Hexyl Laurate (and) Polyglyceryl-4 Isostearate (and) Water (and) PEG-10 Dimethicone (and) Butylene Glycol (and) Stearic Acid (and) Alumina (and) Decyl Glucoside

Gransil SiW-ZnO

Zinc Oxide (and) Cyclopentasiloxane (and) PEG-10 Dimethicone (and) Water (and) Butylene Glycol (and) Decyl Glucoside

Recommended Use Levels:

10 - 30%

Safety:

Non-irritating, Non-sensitizing
Non-mutagenic

Availability:

Globally

Applications:

- Daily Wear
- Sunscreen
- Anti-Aging
- Color Cosmetics
- Primers

Formulation Advice:

Easily formulated in water systems at 40°C or below.

High Performance Silicone Matrix For Sun care

Gransil SiW-TiO₂ 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. Sunscreen micro-dispersions in cyclomethicone provide efficient protection against the sun's harmful rays, while enhancing the sensorial properties of beauty products. We further enhanced these properties by incorporating the UV-filters into our SiW process to **"Make Life Simple"** and allow the hydrophobic silicones to be added directly to water-based products. 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.

Silky Smooth Sunscreen (est. SPF 45)

Part	Ingredient	INCI Name	wt %
A	Deionized Water	Water	21.20
	Carbopol Ultrez 10	Carbomer	0.20
	Natrosol 250HR	Hydroxyethylcellulose	0.20
	Butylene Glycol	Butylene Glycol	7.00
	Glycerin	Glycerin	3.00
	Gransil PSQ	Polymethylsilsesquioxane	3.00
	Triethanolamine 99%	Triethanolamine	0.20
	Plantaren 2000	Decyl Glucoside	0.20
	Diocide	Caprylyl Glycol (and) Phenoxyethanol (and) Hexylene Glycol	1.00
	Invisaskin RB	Dimethylacrylamide/Acrylic acid/Polystyrene/Ethyl Methacrylate Copolymer (and) Water (and) Oryza Sativa (Rice) Bran Extract	10.00
B	Gransil SiW-TiO₂	Titanium Dioxide (and) Cyclopentasiloxane (and) Hexyl Laurate (and) Polyglyceryl-4 Isostearate (and) Water (and) PEG-10 Dimethicone (and) Butylene Glycol (and) Stearic Acid (and) Alumina (and) Decyl Glucoside	30.00
	Gransil SiW-ZnO	Zinc Oxide (and) Cyclopentasiloxane (and) PEG-10 Dimethicone (and) Water (and) Butylene Glycol (and) Decyl Glucoside	20.00
	Dermol 99	Isononyl Isononanoate	3.00
	Simulgel 600	Acrylamide/Sodium Acryloyldimethyltaurate Copolymer (and) Isohexadecane (and) Polysorbate 80	1.00
Total			100.00

Procedure:

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

Gransil SiW-CRT

Color Retention Technology™

Color Protection for
Treated Hair

Silicone Acrylate Film-Former:

A silicone resin designed to remain flexible and water proof. Originally used in non-transfer mascara's and as a binder for color cosmetics.

INCI Name:

Isododecane (and) Isobutylmethacrylate/ Bis-Hydroxypropyl Dimethicone Acrylate Copolymer (and) Water (and) Butylene Glycol (and) Decyl Glucoside

Recommended Use Levels:

Leave-on: 1% - 4%

Rinse-off: 5% - 6%

Safety:

Non-irritating, Non-sensitizing

Non-mutagenic

Availability:

Globally

Hair Applications:

- Conditioners, Serums and Glazes
- Hair Dye Additive
- Frizz Control
- Shine Serums
- UV Filter Retention



Other Applications:

- Sunscreen Waterproofing
- Non-transfer Make-up Binder
- Lip Gloss

Formulation Advice:

Add towards end at room temperature along with 0.2% Decyl Glucoside to help disperse **Gransil SiW-CRT** into the final formula, using low to medium shear. Compatible with carbomer gels and most nonionic and cationic conditioning ingredients.

Not recommended in shampoos as surfactants will break the **Gransil SiW-CRT** dispersion.

May be formulated with semi-permanent dyes to enhance color deposition and intensity, while reducing color bleed. We also recommend formulating in sunscreens for enhanced UV protection in all hair types.

High Performance Polymer Matrix For Color Treated Hair

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.

Treat the hair between shampoos with a conditioning product containing **Gransil SiW-CRT** to lightly coat hair fibers with our silicone-acrylate resin. The resin provides a significant retention of color and vibrancy after only a few shampoo cycles on newly dyed hair. We test on red dyes, which are notorious for bleeding and changing hue, but the product is safe to use on all types of hair and color.

Color fading is minimized by coating the hair fiber with a resin to avoid harsh detergents from accessing the inner fiber surface and stripping away individual dye molecules.

Color Retention Hair Glaze (F-1304)

A salon style color retention glaze that restores luster, shine, protects colors and provides excellent combability. Apply to damp hair and lightly blow dry to set. May use as leave-on product with a light application. For heavier applications, rinse out with water or mild shampoo. Avoid clarifying shampoos with color treated hair.

Part	Ingredient	INCI Name	wt %
A	Deionized Water	Water	83.10
	Solu-silk	Keratin Amino Acids	1.70
	Sodium Chloride	Sodium Chloride	0.30
	Trisodium EDTA	Trisodium EDTA	0.10
	B	Gransurf 71	PEG-11 Methyl Ether Dimethicone
	Gransurf 77	PEG-10 Dimethicone	2.00
	Phenoxyethanol	Phenoxyethanol	2.00
	Butylene Glycol	Butylene Glycol	3.30
	Hydrolyzed Wheat Protein	Hydrolyzed Wheat Protein	0.50
	Keltrol CG-T	Xanthan Gum	0.70
	Natrosol 250HHR	Hydroxyethylcellulose	0.30
C	Uvinul MS 40	Benzophenone-4	0.30
	Dowicil 200	Quaternium-15	0.20
	Methylparaben	Methylparaben	0.20
	Citric Acid	to pH 4	0.00
D	Gransil SiW-CRT	Isododecane (and) Isobutylmethacrylate /Bis-Hydroxypropyl Dimethicone Acrylate Copolymer (and) Water (and) Butylene Glycol (and) Decyl Glucoside	3.30
Total:			100.00

Procedure:

- 1) Combine part A in main kettle and begin heating to 70°C (Hot enough to swell HEC properly).
- 2) Combine part B to form a slurry prior to dispersing powders into water phase.
- 3) Slowly transfer part B to part A with good stirring at 70°C for about 15 min. Keep covered - add back any water loss.
- 4) Cool to 45°C and add part C ingredients in the order shown, ensuring final pH on the acid side.
- 5) Cool to 35°C and add part D (SiW-CRT) and mix until smooth.

Gransil SiW-PCA-10

Optimized for Effective
2-in-1 Hair Care

Features and Benefits:

- Ready to dilute into an existing shampoo, body wash or conditioner formula for an amazing improvement in silicone deposition
- Immediate perceptible difference in feel on hair or skin
- Provides long lasting continuous conditioning and hydration
- Energy Saving Technology - Cold process friendly in high performance systems

INCI Name:

Dimethicone (and) PCA Dimethicone (and) Water (and) Butylene Glycol (and) Decyl Glucoside

Recommended Use Levels:

1 – 10 %

Safety:

Non-irritating, Non-sensitizing
Non-mutagenic

Availability:

Globally

Patent Status:

Patent Pending

Applications:

- Hair Conditioners
- 2 in 1 Shampoos
- Body Cleansers
- Facial Lotions
- Nail Cuticle Treatment

Formulation Advice:

Easily formulated in water systems at 40°C or below.

The Ultimate Silicone Deposition Matrix

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 contained in **Gransil SiW-PCA-10** tenaciously holds moisture and forms ionic bonds with any free amino group on hair or skin. **Gransil SiW-PCA-10** will yield a product that is easier to formulate at lower temperatures while providing a higher degree of slip, volume and conditioned hair.

Radiant Conditioning Shampoo Formula

Part	Ingredient	INCI Name	wt %
A	Promidium-2	PPG-2 Hydroxyethyl Coco/Isostearamide	2.00
	Guar Hydroxypropyl Trimonium Chloride	Guar Hydroxypropyl Trimonium Chloride	0.30
B	Ammonium Lauryl Sulfate (28% active)	Ammonium Lauryl Sulfate	35.70
	Ammonium laureth-3 sulfate (59% active)	Ammonium Laureth Sulfate	17.00
	Arquad 16-29	Cetyltrimonium Chloride	0.75
	Deionized Water	Water	35.35
C	Cetearyl Alcohol	Cetearyl Alcohol	1.00
	Ethylene Glycol Distearate	Ethylene Glycol Distearate	2.00
D	Gransil SiW-PCA-10	Dimethicone (and) PCA Dimethicone (and) Water (and) Butylene Glycol (and) Decyl Glucoside	4.00
	Citric Acid	Citric Acid	0.20
	Mica pearl or Sparkle		0.10
	Preservative		0.50
Total			100.00

Procedure:

- 1) Part A, Slowly incorporate guar powder to Promidium-2.
- 2) Part B (Main Kettle), add together stepwise with slow stirring in the order shown.
- 3) Add part A to part B, begin heating batch and continue stirring main kettle.
- 4) Add part C to main batch and hold at about 75°C to completely melt in part C.
- 5) Remove heat and begin cooling with very mild stirring.
- 6) Add remaining part D ingredients below 40°C.
- 7) De-aerate and fill.

Patents Pending:

Gransil SiW-PCA-10

US20060269499

Substantive anionic silicone oil emulsion compositions for hair and skin conditioning

Granactive Oligopeptide-10

US20070207112

Anti-acne composition

Additional SiW Series Information:

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

CONFORMS TO THE DANGEROUS SUBSTANCES DIRECTIVE 64/548/EEC: No known carcinogens, mutagens or reproductive hazards. (no CMR'S). All products contain <1% cyclotetrasiloxane.

CALIFORNIA PROP-65 STATEMENT: No ingredients in these mixture are associated with Prop-65 requirements.

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.

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:

Granactive RD-101

A silicone-elastomer gel containing 1% pure trans-retinoate ester. Designed for low irritation and effective topical delivery in skin care applications. Recommended for non-prescriptive topical cosmetic, cosmeceutical and dermatological applications at 0.1% final retinoic ester concentration.

InvisaSkin Matrix Rebuilder-O

An anti-aging skin care complex combining the activity of palmitoyl hexapeptide-14 with plant derived glycoconjugates (goji berry) for a maximum synergist effect rebuilding skin's extra-cellular matrix. Multiple rebuilding pathways are activated including: collagen biosynthesis, fibroblast proliferation and inhibition of destructive matrix-metalloproteinases. It delivers anti-aging properties, visible results can be seen in reduction of lines and wrinkles along with improvement in skin's elasticity. This ingredient utilizes InvisaSkin™ polymer matrix to maximize efficacy and hydration.

Granactive AGE

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.

Granactive Hexapeptide

Cyclopentasiloxane, and polysilicone-11 together provide a delivery matrix for the palmitoyl hexapeptide-14 peptide. This gel has been effectively used in both emulsions and anhydrous systems for comprehensive anti-aging function on skin. 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, encouraging proliferation of fibroblast cells and inhibiting matrix-metalloproteinases. This ingredient offers comprehensive active function for reducing the appearance of fine lines and wrinkles, while eliminating dull and dry skin by rebuilding the extra-cellular matrix.

Granactive Powder-168

A catalytic complex designed to stimulate anti-aging cellular turnover as delivered from loose and pressed powder applications. Active ingredients include palmitoyl hexapeptide-14 for matrix-fibroblast stimulation and collagen growth, along with fulvic acid (peat extract) and colloidal gold for promoting electron transfer between minerals and the metal ions contained in the dermal layers of skin.

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