

# **Section VII**

## **Lotions**

**After Sport Massage Lotion**

A low viscosity "emulsifier-free" lotion containing Bentone Gel EUG rheological additive.

<u>Ingredients:</u>	<u>Wt%</u>
Caprylic/Capric Triglyceride	5.00
Octyldodecanol	4.00
Isopropyl Myristate (and) Soya Bean Oil (and) Arnica Extract	2.00
Propylene Glycol	3.00
Acrylic Acid/Vinyl Ester Copolymer	0.30
Triethanolamine 99%	0.15
Perfume	0.20
Methyldibromoglutaronitrile (and) Dipropylene Glycol	0.20
Bentone Gel EUG	3.00
Demineralized Water	Bal to 100%
	(pH approx 5.5)

**Method Of Manufacture:**

1. Thoroughly disperse the Bentone Gel EUG additive in the oil phase, then disperse the Acrylic Acid/Vinyl Ester Copolymer, then heat to 45C.
2. Add the Triethanolamine to the aqueous phase and heat to 45C.
3. Add the two phases, with mixing, and continue to stir.
4. Add the perfume and preservative below 30C.

This "emulsifier free" lotion is easy to apply to the skin and the emulsion breaks rapidly on contact with the skin. The presence of Bentone Gel EUG additive provides body to the lotion and eliminates the "wetness" often associated with Carbomer-stabilized emulsions.

**SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formula**

**AHA High Viscosity Lotion with Uninontan U-34**

An AHA Glycolic lotion with Uninontan U-34 and Gorgonian Extract to provide an even skin tone and help minimize skin irritation. This formula also contains a balanced emulsifier system for excellent stability and a variety of emollient moisturizers for skin softness.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	78.65
1	Uniphen P-23	0.50
1	Liponic EG-1/Glycereth-26	1.50
2	Keltrol/Xanthan Gum	0.25
2	Veegum/Magnesium Aluminum Silicate	0.15
3	Ultrapure L/Petrolatum	1.50
3	Lipo GMS 450/Glyceryl Stearate	1.50
3	Lipopeg 6000 DS/PEG-150 Distearate	1.75
3	Lipowax G/Stearyl Alcohol (and) Cetareth-20	0.25
3	Lipowax P/Emulsifying Wax, NF	0.45
3	Lipocol C/Cetyl Alcohol	1.00
3	Liponate NPGC-2/Neopentyl Glycol Dicaprylate/Dicaprate	4.00
3	Lipovol SAF/Safflower Oil	0.50
3	Lipovol SES/Sesame Oil	0.50
4	Glycolic Acid, 99%	2.00
4	Uninontan U-34	5.00
5	Gorgonian Extract/Butylene Glycol (and) Sea Whip Extract	0.50
6	Triethanolamine, 99%	Q.S.*

\* To adjust pH

**Procedure:**

- Mix sequence #1 together with overhead mixer while heating to 78C.
- Dry mix sequence #2 together and add slowly to sequence #1 with medium/high agitation. (Mix well until both gums are completely hydrated/homogeneous).
- Mix sequence #3 together and heat to 78C until completely melted and add to batch. (Cool to 55C, place on sweep blade and continue to cool to 45C).
- At 45C, premix sequence #4 together at room temperature and add to batch using sweep blade at low speed. Lower temperature to 40C.
- At 40C, add sequence #5 to the batch.
- Cool down to 25C and remove from mixer.
- Adjust pH to 3.8-4.2 with sequence #6.

**Specifications:**

pH: 4.0+-0.2

Viscosity: 32,730cps+-10%

**SOURCE:** Lipo Chemicals Inc.: Formula No. 923

AHA Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Mineral oil (25 cS at 25C)	6.0
GMS A/S (Glyceryl stearate and PEG-100)	6.0
GMS N/E (Glyceryl stearate)	2.5
Crodacol C90 (Cetyl alcohol)	1.5
Silicone 200/100 (Dimethicone)	0.5
Water deionised	0.3
Kelzan S (Xanthan gum)	0.3
Propylene glycol	5.0
Purasal S/PF 60 (Sodium lactate)	5-12
Purac PH 90 (Lactic acid) to required pH	2- 5
Perfume, preservative, colour	qs

Croda formulation

Water in Oil Moisturizing Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Veegum (MgAlSilicate)	1.30
Water	to 100%
Magnesium sulphate	0.50
Phase B:	
Mineral oil, Light	9.00
Polysynlane	10.00
Nimlesterol D	7.50
Amerchol L101	9.00
Purasal S/HQ 60	5-12
Purac PH 90 to required pH	0.05-0.15
Witcamide 511	2.00
Preservative	q.s.

It is not 100% sure whether the Purac products have to be added to Phase A or Phase B.

Polyester Corp. formulation

SOURCE: Purac America, Inc.: Suggested Formulations

**Body Forming Lotion(Pentacare-HP/Revitalin-BT)**

In this emulsifier-free lotion Pentacare-HP reduces the fine lines and wrinkles directly after application. Revitalin-BT activates the cell metabolism. The combination of all actives makes this light and agreeable formulation to an ideal product for body forming application.

<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
A) Pemulen TR-1/Acrylates/C10-30 Alkyl Acrylate Cross-polymer	0.30
Cetiol 868/Octyl Stearate	8.00
Almond Oil/Sweet Almond Oil	10.00
Vitamin E Acetate/Tocopheryl Acetate	0.50
B) Deionized Water	68.80
Carbopol Ultrez 10/Carbomer	0.10
Glycerin/Glycerin	2.00
Phenonip	0.50
Caffeine/Caffeine	0.50
C) Sodium Hydroxide 18% Solution      q.s. pH 6.0	
D) Ivy Extract/Ivy Extract	2.00
Pentacare-HP/Water, Locust Bean (Ceratonia Siliqua)	
Gum, Hydrolyzed Casein	5.00
Revitalin-BT/Glycoproteins	2.00
Fragrance/Number one 908 CK	0.30

**Procedure:**

Mix phase A) and homogenize for 2 minutes. Under stirring add phase B) to phase A) and homogenize. Neutralize with phase C). Finally incorporate items of phase D) one after the other.

**SOURCE:** Pentapharm Ltd.: Application No. C 031.0/05.99

Body Lotion with AHA

<u>Ingredients:</u>	<u>Wt%</u>
<b>Phase A:</b>	
Water, deionised	53.60
Stabileze 06/QM	2.00
Suttocide A	0.50
<b>Phase B:</b>	
Water, deionised	10.00
Sodium lactate (Purasal S/PF 60)	8.40
Lactic Acid (Purac PH 90) (adjust to pH 4)	3.00
<b>Phase C:</b>	
Glyceryl Stearate (Cerasynt 945)	4.00
PEG-20 Stearate (Cerasynt 840)	2.00
Beeswax	3.00
Maleated Soybean Oil (Ceraphyl GA-D)	2.00
Diisopropyl Adipate (Ceraphyl 230)	2.00
Myristyl Myristate (Ceraphyl 424)	2.50
Isocetyl Alcohol (Ceraphyl ICA)	3.00
Mineral oil	3.00
Germaben II-E	1.00

**Procedure:**

1. Disperse Stabileze 06/QM in water and heat to 80 degrees Celsius with constant stirring until a translucent gel is formed.
2. Cool to 60 degrees Celsius. Add Suttocide A and mix until a clear gel is obtained.
3. Add premix (Phase B) with pH adjusted to 4, into Phase A.
4. Heat Phase C with uniform stirring and cool to 60 degrees Celsius. Add to Phase AB.
5. Mix and homogenize to 45 degrees Celsius.
6. Add Germaben II-E at 40 degrees Celsius.

**SOURCE:** Purac America, Inc.: ISP Formulation

Body Lotion with Sunscreens

SFE839 Elastomer Dispersion is silicone elastomer dispersed in cyclopentasiloxane. It acts as an emollient and provides smooth, silky and luxurious afterfeel.

<u>Ingredient/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
Octyl Methoxycinnamate/UV absorber	7.5
Benzophenone-3/UV absorber	3.0
Stearic Acid/Emulsifier	2.5
Glyceryl Stearate SE/Emulsifier	1.0
PVP/Eicosene Copolymer (1)/Film former	2.0
Cetyl Alcohol/Thickener	0.3
Caprylic/Capric Triglyceride/Emollient	3.0
Acrylates/C10-30 Alkyl Acrylate Crosspolymer (2)/Emulsifier/Thickener	0.25
<b>Part B:</b>	
Glycerin/Humectant	3.0
Disodium EDTA/Chelating agent	0.05
Methylparaben/Preservative	0.2
Propylparaben/Preservative	0.1
Xanthan Gum/Thickener	0.4
Water	70.5
<b>Part C:</b>	
Triethanolamine/Neutralizer/Emulsifier	0.9
<b>Part D:</b>	
Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer (SFE839)(3)/Emollient	5.0
Sorbitan Oleate/Emulsifier	0.3

**Procedure:**

1. Combine Part A and heat with agitation to 75C.
2. Mix together all Part B and heat to 70C.
3. Add Part A to Part B under high shear mixing.
4. Cool with agitation to 45C and add Part C.
5. Combine Part D and add to the batch with moderate agitation until uniform.

**Trade Names/Suppliers:**

- (1) Ganex V-220, ISP
- (2) Pemulen TR-1, BF Goodrich
- (3) GE Silicones

**SOURCE:** GE Silicones: Personal Care Formulary: Formula SC105

Body Lotion with Sunscreens

This water-in-oil formulation using SF1528 is a light, non-greasy, less tacky sunscreen. SF1642 acts as an emollient/thickener and provides smooth, silky and luxurious afterfeel. This sunscreen demonstrates the use of silicones in conjunction with organics.

<u>Ingredient/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
Octyl Methoxycinnamate/UV-absorber	7.5
Octyl Salicylate/UV-absorber	3
Benzophenone-3/UV-absorber	3
<b>Part B:</b>	
Bis-Phenylpropyl Dimethicone(SF1555)(1)/Emollient	5
C30-45 Alkyl Dimethicone(SF1642)(1)/Thickener, Emollient	1
Dimethicone/Vinyl Dimethicone Crosspolymer(SFE839)(1)/Thickener, Emollient	5
Cyclopentasiloxane (and) Dimethicone Copolyol(SF1528)(1)/Primary Emulsifier	10
PEG-30 Dipolyhydroxystearate/Secondary Emulsifier	1
Sorbitan Oleate/Secondary Emulsifier	0.5
<b>Part C:</b>	
Water/Vehicle	q.s.
Butylene Glycol/Humectant	2
NaCl/Stabilizer	1.0
Quaternium-15/Preservative	0.1

**Procedure:**

1. Combine Part A and mix until uniform.
2. Add ingredients of Part B to Part A and heat to 60-65C.
3. In a separate vessel, mix all ingredients of Part C. Heat to 60-65C.
4. Slowly add water phase to oil phase under moderate mixing.
5. Homogenize for 1-2 minutes.

**Suppliers:**

(1) GE Silicones

**SOURCE:** GE Silicones: Personal Care Formulary: Formula SC108



**Daily Protective Lotion (With Sunscreen)**  
**Oil Free, Fragrance Free**

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
A-A1 Amphisol/Cetyl Phosphate (and) DEA Cetyl Phosphate	1.00
Arlacel 165/Glyceryl Stearate (and) PEG 100 Stearate	1.00
Cetyl Alcohol	1.50
Schercemol DISD/Diisostearyl Dimerate	1.00
Schercemol CO/Cetyl Octanoate	8.00
Silicone fl. 350 cps	0.10
A2 Parsol MCX/2-Ethyl Hexyl P-Methoxycinnamate	3.00
Dipsal/Dipropylene Glycol Salicylate	2.30
B-B1 Deionized Water	67.40
Carbopol 941 2% Aq. Soln.	10.00
B2 Glycerin	3.00
B3 Triethanolamine	0.20
C- Germaben II	1.00
D- Rose Extract	0.50

**Procedure:****Phase B:**

In the main beaker, disperse B1 together at 75-85C.

Add Glycerin.

Add Triethanolamine to neutralize the Carbopol gel.

Mix until a smooth gel is obtained.

**Phase A:**

Blend Phase A1 to at least 85C. Once completely clear add A2.

Blend Phase A together until a homogeneous oil phase is obtained.

Add Phase A to Phase B with continuous mixing at 80-85C for 15 minutes.

Cool batch to 60C, then add C. Continue to cool batch to 30C, then add D.

Formulation L-213-3

**Cationic Emollient Lotion**

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Part A:	
Deionized Water	q.s.
Schercoquat IALA/Isostearamidopropyl Laurylacetylmonium Chloride	5.0
Schercomid LME-75/Lactamide MEA	3.0
Germaben II	1.0
Part B:	
Schercemol 185/Isostearyl Neopentanoate	15.0
Schercemol MM/Myristyl Myristate	1.0
Cetyl Alcohol	4.0
Schercemol GMIS/Glyceryl Isostearate	4.5

**Procedure:**

1. Part A. Disperse Schercoquat IALA in water. When solution is uniform, add the rest of the ingredients and heat to 70C.

2. Prepare Part B and heat to 70C.

3. Add Part A to Part B, stirring continuously.

4. Cool to room temperature. Continue with moderate agitation.

Formulation SK 135

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

European Body Lotion

A water-in-oil formulation producing a lotion with a light, non-greasy feel. SF1328 acts as a water-in-oil emulsifier. SF1202, cyclopentasiloxane, is an emollient providing spreadability, detackification and a dry, non-greasy feel.

(1)

<u>Ingredient/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
Sorbitan Stearate/Emollient/Co-emulsifier	0.91
Lanolin/Emollient	0.96
<b>Part B:</b>	
Glycerin/Humectant	1.05
Sodium Chloride/Stabilizing aid	1.80
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben(3)/Preservative	0.60
Water	54.69
<b>Part C:</b>	
Cyclomethicone (and) Dimethicone Copolyol (SF1328)(4)/Emulsifier	25.24
Cyclopentasiloxane(SF1202)(4)/Emollient/Detackifier	14.75

(2)

<u>Ingredient/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
Sucrose Distearate(1)/Emollient/Co-emulsifier	0.40
Sorbitan Stearate/Emollient/Co-emulsifier	0.50
Lanolin/Emollient	0.80
Perfluoromethylisopropyl Ether(2)/Film-former	0.50
<b>Part B:</b>	
Magnesium Aluminum Silicate/Viscosity adjuster	0.30
Glycerin/Humectant	2.50
Sodium Chloride/Stabilizing aid	1.80
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben(3)/Preservative	0.60
Water	64.60
<b>Part C:</b>	
Cyclomethicone (and) Dimethicone Copolyol (SF1328)(4)/Emulsifier	14.00
Cyclopentasiloxane(SF1202)(4)/Emollient/Datackifier	14.00

**Procedure:**

1. Add Part B to Part C with high-speed mixing.
2. Melt Part A and quickly add to Part BC emulsion with continued high-speed mixing.
3. Homogenize to a stable emulsion.

**Comments:**

- \* Improve freeze-thaw stability by using 1% sorbitan isostearate
- \* Increase viscosity with lower SF1202 level and/or increased magnesium aluminum silicate.

**Trade Names/Suppliers:**

- |                 |                  |
|-----------------|------------------|
| (1) Croda, Inc. | (2) Ausimont     |
| (3) Germaben II | (4) GE Silicones |

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 109

**Facial Cleansing Lotion**

Dual purpose make-up remover and skin conditioner for every day use. The lotion provides mild cleansing, emollience and skin protection. The inclusion of Akoline MCM offers anti-microbial properties to the formulation and helps solubilising impurities on the skin. Lipex Canola-U adds natural tocopherols and phyto-sterols to protect and reduce skin irritancy from environmental stress and other aggressions against the skin. Akorex L and Lipex together with Lipex Canola-U imparts a nice soft skin feel.

<u>Raw Material/INCI Name:</u>		<u>Wt%</u>
1.	Water, dem./Aqua	ad 100.00
	Glycerin 99.5%	5.00
2.	Pationic SCL/Sodium Cocoyl Lactylate	0.50
	Rita Cetearyl Alcohol	2.50
	Rita GMS/Glyceryl Stearate	4.00
	Akoline MCM/Caprylic/capric glycerides	2.00
	Akomed R/Caprylic/capric triglycerides	2.50
	Lipex Canola-U/Canola oil unsaponifiables	2.00
	Akorex L/Hydrogenated Canola oil	0.50
	Lipex 203/Mango (Magnifera Indica) seed oil	0.50
	Arlamol HD/Isohexadecane	8.00
3.	Euxyl K 400/Methyldibrome Glutaronitrile (and)	
	Phenoxyethanol	0.20
	Trimaran 61636/Parfum	0.07
4.	Sicovit Patentblau 85 E131/C.I.42051/Acid Blue 3	q.s.

**Manufacturing Procedure:**

Take the ingredients for Position 1. Heat to 80-85C. Melt the ingredients for Position 2 at a temperature of 80-85C. Once the product has reached the prescribed temperature, slowly work Position 1 into Position 2, stirring and homogenising all the time. Stir while cooling down. Once a temperature of 30C has been reached, add the ingredients for Position 3. Finally add Position 4 as a solution in a small amount of water from Position 1. Cool down to 28C, stirring all the time.

Appearance: Smooth, shiny, blue colored lotion.

SOURCE: Jarchem Industries, Inc.: Suggested Formulation

Facial Lotion for Acne and Shine Control

A Hydroxypropyl Beta Cyclodextrin (and) Salicylic Acid lotion containing Uninontan U-34 and Gorgonian Extract to provide even skin tone and help minimize skin irritation. This formula reduces shine by absorbing and normalizing facial oil while providing moisturization to the skin.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	57.70
1	Uniphen P-23	0.50
1	Liponic EG-1/Glycereth-26	3.00
2	Keltrol/Xanthan Gum	0.20
2	Veegum/Magnesium Aluminum Silicate	0.15
3	Ultrapure L/Petrolatum	1.50
3	Lipo GMS 450/Glyceryl Stearate	1.50
3	Lipopeg 6000 DS/PEG-150 Distearate	1.75
3	Lipowax G/Stearyl Alcohol (and) Cetearath-20	0.25
3	Lipowax P/Emulsifying Wax, NF	0.45
3	Lipocol C/Cetyl Alcohol	1.00
3	Liponate NPGC-2	4.00
3	Lipovol SAF/Safflower Oil	0.50
3	Lipovol SES/Sesame Oil	0.50
4	Orgasol 2002 D Nat Cos/Nylon-12	1.50
5	Lipo CD-SA	20.00
5	Uninontan U-34	5.00
6	Gorgonian Extract	0.50
7	Triethanolamine, 99%	*QS

\*To adjust pH

Procedure:

- Mix sequence #1 together with overhead mixer while heating to 78C.
- Dry mix sequence #2 together and add slowly to sequence #1 with medium/high agitation. (Mix well until both gums are completely hydrated/homogeneous.)
- Mix sequence #3 together and heat to 78C until completely melted and add to batch. (Cool to 55C, place on sweep blade and continue to cool to 45C.)
- At 45C, add sequence #4 to batch using sweep blade at low speed. Lower temperature to 40C.
- At 40C, add sequence #5 to the batch. Cool to 35C.
- At 35C, add sequence #6 to batch.
- Cool down to 25C and remove from mixer.
- Adjust pH to 3.8-4.2 with sequence #7.

Specifications:

pH: 4.0+/-0.2

Viscosity: LVT #4 @ 30 rpm: 7,400 cps +10%

SOURCE: Lipo Chemicals Inc.: Formula No. 951

Four Season's Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
<b>Part A:</b>	
Stearic Acid No. 63-0412 (1)	3.0
Rosswax 2540 (1)	5.9
Emerest 2314 (2)	1.7
Emerest 2316 (2)	1.7
GMS SE (3)	0.5
Mineral Oil #35 (4)	0.3
Dow Corning #344 (5)	1.5
Acetulan (6)	1.2
Jojoba Oil (7)	2.0
Escalol 507 (8)	5.0
<b>Part B:</b>	
Water	70.7
Aloe-Vera (1:1) (9)	4.0
Triethanolamine	1.2
<b>Part C:</b>	
Germaben IIE (10)	1.0
<b>Part D:</b>	
Fragrance Pina Colada (11)	0.3

**Procedure:**

Heat Part A and Part B to 170F in separate heated vessels. Next add Part B to Part A with agitation until thoroughly mixed. Then add Part C under agitation and finally add Part D. Cool the batch to 135F and package.

**Suppliers:**

(1) Frank B. Ross Co.	(7) Arista Industries Inc.
(2) Henkel-Emery Group	(8) ISP-Van Dyk
(3) Stepan Co.	(9) Madis Botanicals Inc.
(4) Penreco Inc.	(10) ISP-Sutton Labs
(5) Dow Corning Corp.	(11) Robertet-Novarome
(6) Amerchol Corp.	

**SOURCE: Frank B. Ross Co., Inc.: Suggested Formulation**

General Purpose Skin Lotion

This is a simple base formulation for an all-purpose oil-in-water skin lotion. It is a light product for the face and hands. SF96 (100), dimethicone, provides emollient and anti-whitening properties as well as skin protection.

<u>Ingredient/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
PEG-8 Stearate/Emulsifier	1.31
Dimethicone [SF96 (100)](1)/Emollient/Anti-whitening	6.50
Myristyl Alcohol/Emollient/Viscosity	3.80
Glyceryl Stearate (and) PEG-100 Stearate/Emulsifier/ Opacifier	4.00
Sodium Dioctylsulfosuccinate(2)/Surfactant	0.17
Myristyl Lactate/Emollient	2.70
Cetyl Acetate/Emollient	2.70
Methylparaben/Preservative	0.17
<b>Part B:</b>	
Disodium EDTA/Chelating agent	0.05
Water/Diluent	78.60

**Procedure:**

1. Heat Part A and Part B to 80C.
2. Add Part A to Part B with agitation.
3. Continue to mix until product is cooled to 25C. Force-cool if needed.

**Comments:**

- \* Methylparaben may be added to Part B or it may be substituted with Germaben II-E.
- \* Greater viscosity may be achieved by replacing myristyl alcohol with cetyl, cetearyl, stearic or behenyl alcohol.
- \* Greater elegance may be achieved by replacing SF96 (100) with SF1214.

**Trade Names/Suppliers:**

- (1) GE Silicones
- (2) Monawet MO85P, Mona Industries, Inc.

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 100

General Purpose Skin Lotion

This is a simple formulation for an all-purpose oil-in-water skin lotion. It is a light product for the face and hands. SFE839 Elastomer Dispersion, provides emollient and anti-whitening properties as well as skin protection.

<u>Ingredient/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
PEG-8 Stearate/Emulsifier	1.31
Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer(SFE839)(1)/Emollient/Anti-whitening	6.50
Myristyl Alcohol/Emollient/Viscosity Building Agent	3.80
Glyceryl Stearate (and) PEG-100 Stearate/Emulsifier/Opacifier	4.00
Sodium Dioctylsulfosuccinate(2)/Emulsifier	0.17
Myristyl Lactate/Emollient	2.70
Cetyl Acetate/Emollient	2.70
Methylparaben/Preservative	0.17
<b>Part B:</b>	
Disodium EDTA/Chelating agent	0.05
Water/Diluent	78.60

**Procedure:**

1. In separate vessels, heat Part A and Part B to 80C.
2. Add Part A to Part B with agitation.
3. Continue to mix until product is cooled to 25C. Force-cool if needed.

**Comments:**

- \*Methylparaben may be added to Part B or it may be substituted with Germaben II-E, International Specialty Products (ISP)
- \*Greater viscosity may be achieved by replacing myristyl alcohol with cetyl, cetearyl, stearic or behenyl alcohol.

**Trade Names/Suppliers:**

- (1) GE Silicones
- (2) Monawet MO85P, Mona Industries, Inc.

**SOURCE:** GE Silicones: Personal Care Formulary: Formula SP117

Hand and Body Lotion for Dry Skin

A non-greasy lotion designed for daily use as a moisturizing lotion on the hands or entire body. This formulation demonstrates the use of SF1632 in a moisturizing product. SF1632 is a silicone wax which melts when applied to the skin and forms an occlusive barrier which reduces water loss from the skin (TEWL). It has a light, non-greasy feel and is ideal when formulating moisturizing products.

<u>Ingredients/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
Deionized Water/Diluent	73.53
Disodium EDTA/Chelating agent	0.02
Butylene Glycol/Humectant	3.00
Panthenol/Moisturizer/Provitamin B	0.40
Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben (1)/Preservative	0.80
<b>Part B:</b>	
Cyclopentasiloxane (SF1202)(2)/Emollient	5.00
Cetearyl Methicone (SF1632)(2)/Occlusive/TEWL reduction/ Emollient	10.00
Glyceryl Stearate (and) PEG-100 Stearate/Emulsifier	1.00
Tocopherol (and) Cococaprylate/Caprate/Vitamin E/ Antioxidant	0.50
<b>Part C:</b>	
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7(3)/Emulsifier	1.40
<b>Part D:</b>	
Fragrance (4)	0.35
Aluminum Starch Octenylsuccinate/Slip/Feel	4.00

**Procedure:**

- Heat water of Part A to 75C with moderate propeller agitation. Add remaining ingredients in order listed with moderate stirring.
- Combine Part B and heat to 75C with slow agitation. Add Part B to Part A with moderate propeller agitation. Mix for 5 minutes, then begin cooling batch.
- At 50C add Part C to Part AB and mix with rapid propeller agitation until uniform and viscosity increases. Mix 10 minutes with moderate homogenizer agitation. Cool to 45C.
- Add Part D to batch in order listed and mix with moderate propeller agitation for 15 minutes.
- Cool to room temperature with continued stirring.

**Trade Names/Suppliers:**

- (1) Phenonip, Nipa Laboratories, Inc. (2) GE Silicones  
(3) Sepigel 305, Seppic (4) Fragrance HJ-416, Shaw Mudge

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 105



Hand-Protection Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A: Polyethylenglycol 400	2.20
Isopropyl Myristate	2.20
Cetyl Alcohol	0.60
Lanolin Acid	0.60
Stearic Acid	3.30
B: Triethanolamine	0.60
Propylene Glycol	5.50
Water	82.00
C: Wacker-Belsil CM 1000	2.20
Preservatives, perfume, pigments	q.s.

Heat A and B to 80C. Add A to B with fast agitation. Add C.  
Formulation 576 AH

Body Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A: Hostacerin WO	8.00
Wacker-Belsil CM 1000	10.00
Isopropyl Palmitate	10.00
B: Water	72.00
Preservatives, perfume, pigments	q.s.

W/O Lotion  
Heat A and B to 75-80C. Stir B into A.  
Temperature stability: at 45C 8 weeks.  
Formulation 813 AH

Body Lotion

Thick lotion with good absorption and non-greasing properties. With UV-protection.

<u>Ingredients:</u>	<u>Wt%</u>
A: Mineral Oil	1.00
Cetyl Alcohol	1.00
Stearic Acid	1.50
Wacker-Belsil SM 6018	5.00
B: Triethanolamine	0.80
Propylene Glycol	3.00
Water	85.20
C: Parsol MCX	2.50
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 85C, stir B into A and stir cold.  
Formulation 1210/1AH

SOURCE: Wacker Silicones: Suggested Formulations

Lotion with Alcohol

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	8.5
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5
Softigen 701 (Glyceryl Ricinoleate)	1.5
B. Carbopolgel 2½-ig (Carbomer)	12.5
Preservative	q.s.
Water ad	100
C. Ethanol, 96%	10
Fragrance	q.s.

Preparation:

A is mixed and warmed up to about 75C. B is brought to the same temperature and gradually emulsified into A with hi-speed agitator. C is stirred in at approx. 30C.

Sport Body Lotion, Low-Viscous

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 370 (Glyceryl Stearate Citrate)	2.5
Imwitor 375	2.5
Miglyol 812 (Caprylic/Capric Triglyceride)	8
Imwitor 928 (Glyceryl Cocoate)	3
B. Keltrol F (Xanthan Gum)	0.5
Preservative	q.s.
Water ad	100

Preparation:

A is heated up to about 75C. B is mixed, brought to the same temperature and emulsified into A.

W/O-Lotion, Quickly Penetrating

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan Gel	7
Softisan 100 (Hydrogenated Coco-Glyceride)	2
Imwitor 780K (Isostearyl Diglyceryl Succinate)	3
Miglyol 812 (Caprylic/Capric Triglyceride)	8
Dynacerin 660 (Oleyl Erucate)	7
Pionier WHH soft (Ointment base)	6
Arlacel 989 (Hydrogenated Castor Oil)	2
B. Magnesium Sulphate	0.5
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is heated to approx. 75C and homogeneously stirred. B is brought to the same temperature and gradually admixed into A with hi-speed agitator. C is added at approx. 30C.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Milky Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A: Polyoxyethylene Sorbitan Monostearate (20EO)	1.0
Sorbitan Monostearate	0.5
Polyoxyethylene Sorbitan Tetraoleate (40EO)	1.0
Stearic Acid	1.0
Cetanol	0.5
Behenyl Alcohol	0.5
Myristyl Myristate	2.0
MITD (Isotridecyl Myristate)	5.0
Liquid paraffin	10.0
Alpha-Bisabolol	0.2
Butyl Parahydroxybenzoate	0.1
B: Isoprene Glycol	5.0
Methyl Parahydroxybenzoate	0.1
Purified Water	Up to 100

- 1) Heat (A) to 80C and mix it.
- 2) Mix IPG with purified water and heat it to 80C. Dissolve Methyl Paraben into it.
3. Mix A and B. Then cool it to room temp.

Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
POE (60) Hydrogenated Castor Oil	0.5
POE (20) POP (6) Decyl Tetradecylether	0.5
Squalane	0.1
Ethanol	5.0
Isoprene Glycol	5.0
Sodium dl-Pyrrolidone Carboxylate	2.0
Citric Acid	*
Alpha-Bisabolol	0.1
Purified Water	Up to 100
*Adjust pH to 5-6 with Citric Acid.	

Hand Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
Hexadecyl alcohol	1.5
Silicone 200	1.5
Lanolin oil	2.0
Robane	3.0
Cetina	3.0
Water, perfume, preservative	q.s. to 100.0

SOURCE: Robeco Chemicals, Inc.: Suggested Formulations

Moisturizing Body Lotion-922/1

<u>Ingredients:</u>	<u>Wt%</u>
<b>Part A:</b>	
Deionized Water	76.10
Propylene Glycol	5.00
Trisodium EDTA	0.05
Triethanolamine	1.20
Methylparaben	0.25
<b>Part B:</b>	
Robane (Squalane NF)	10.00
SPM wax (Cetyl Esters)	0.25
Cetyl Alcohol	1.00
Stearic Acid	4.50
Silicone Fluid 200 (200 cs) (Dimethicone)	0.25
Propylparaben	0.10
Butylparaben	0.05
<b>Part C:</b>	
Deionized Water	1.00
Germall 115 (Imidazolidinyl Urea)	0.25

Moisturizing Body Lotion 922/2

<u>Ingredients:</u>	<u>Wt%</u>
<b>Part A:</b>	
Deionized Water	76.10
Butylene Glycol	5.00
Trisodium EDTA	0.05
Triethanolamine	1.20
Methylparaben	0.25
<b>Part B:</b>	
Robane (Squalane NF)	10.00
SPM Wax (Cetyl Esters)	0.25
Cetyl Alcohol	1.00
Stearic Acid	4.50
Silicone Fluid 200 (200 cs) (Dimethicone)	0.25
Propylparaben	0.10
Butylparaben	0.05
<b>Part C:</b>	
Deionized Water	1.00
Germall 115 (Imidazolidinyl Urea)	0.25

**Procedure:**

1. Mix and heat Part A and Part B to 78-80C. Stir each until uniform.
2. Add Part B to Part A and stir for 15 minutes at 78-80C.
3. Cool, with stirring at 40-42C, add Part C to batch.
4. Cool to 25C.

**SOURCE:** Robeco Chemicals, Inc.: Suggested Formulations

**Moisturizing Body Lotion 922/3**

<b><u>Ingredients:</u></b>	<b><u>Wt%</u></b>
<b>Part A:</b>	
Deionized Water	76.10
Isoprene Glycol	5.00
Trisodium EDTA	0.05
Triethanolamine	1.20
Methylparaben	0.25
<b>Part B:</b>	
Robane (Squalane NF)	10.00
SPM Wax (Cetyl Esters)	0.25
Cetyl Alcohol	1.00
Stearic Acid	4.50
Silicone Fluid 200 (200 cs) (Dimethicone)	0.25
Propylparaben	0.10
Butylparaben	0.05
<b>Part C:</b>	
Deionized Water	1.00
Germall 115 (Imidazolidinyl Urea)	0.25

**Procedure:**

1. Mix and heat Part A and Part B to 75-80C. Stir each until uniform.
2. Add Part B to Part A and stir for 15 minutes at 78-80C.
3. Cool, with stirring to 40-42C, add Part C to batch.
4. Cool to 25C

**Emollient Body Lotion**

<b><u>Raw Materials:</u></b>	<b><u>Wt%</u></b>
Isopropyl myristate	4.0
Glyceryl monostearate	2.0
Stearic acid TP	2.6
Cetina	1.0
Robane	4.0
Veegum	1.0
Propylene Glycol	4.0
Triethanolamine	1.5
Water, perfume, preservative	q.s. to 100.0

**SOURCE:** Robane Chemical, Inc.: Suggested Formulations

Moisturizing Facial Lotion

A facial lotion which demonstrates the use of SF1632 in a light moisturizing product. SF1632 is a silicone wax which melts when applied to the skin and forms a semi-occlusive barrier which reduces water loss from the skin (TEWL). It has a light, non-greasy feel and is ideal when formulating moisturizing products.

<u>Ingredient/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
Deionized Water/Diluent	76.58
Tetrasodium EDTA/Chelating agent	0.02
Propylene Glycol/Humectant	3.00
Panthenol/Moisturizer/Provitamin B	0.50
Phenoxethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben (1)/Preservative	0.80
<b>Part B:</b>	
Cetearyl Methicone (SF1632)(2)/Occlusive/TEWL reduction/Emollient	5.00
Dicaprylyl Ether/Emollient	4.00
Floraester-20/Emollient	3.00
Maleated Soybean Oil/Emollient	4.50
Cetyl Alcohol/Bodifying agent/Secondary emulsifier	1.00
<b>Part C:</b>	
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7(3)/Primary emulsifier/Thickener	1.40
Floral Fragrance	0.20

**Procedure:**

1. Heat water of Part A to 75C with moderate propeller agitation. Add remaining ingredients in order listed with moderate stirring.
2. Combine Part B and heat to 75C with slow agitation. Add Part B to Part A with moderate propeller agitation. Mix for 5 minutes, then begin cooling batch to 60C.
3. At 60C add Part C (Sepigel, then fragrance) to Part AB and mix with rapid propeller agitation until uniform and viscosity increases. As viscosity develops, increase mixing speed.
4. Cool to room temperature with adequate agitation.

**Trade Names/Suppliers:**

- (1) Phenonip, Nipa Laboratories, Inc.
- (2) GE Silicones
- (3) Sepigel 305, Seppic

**SOURCE: GE Silicones: Personal Care Formulary: Formula SP 103**

Moisturizing Lotion (SK-104)

<u>Raw Materials:</u>	<u>Wt%</u>
A. Amerchol L-101	8.00
Solulan 98 (Laneth-10 Acetate)	0.50
Klearol (Mineral Oil)	15.00
Propylene Glycol	5.00
Arlacel 165	1.00
Cetyl Alcohol	0.50
B. Water, Deionized	61.25
Carbopol 941 (Carbomer-941)	0.50
C. Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D. Water, Deionized	4.50
Potassium Hydroxide (40%)	0.50
E. Water, Deionized	1.80
Germall 115 (Imidazolidinyl Urea)	0.20
F. Perfume Oil	0.25

Moisturizing Lotion (SK-105)

<u>Raw Material:</u>	<u>Wt%</u>
A. Lanolin Alcohol	0.50
Solulan 98 (Laneth-10 Acetate)	0.50
Schercemol DID (Diisopropyl Dimerate)	8.00
Propylene Glycol	4.00
Arlacel 165	1.00
Cetyl Alcohol	1.00
B. Water, Deionized	76.25
Carbopol 941 (Carbomer-941)	0.50
C. Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D. Water, Deionized	4.50
Potassium Hydroxide (40%)	0.50
E. Water, Deionized	1.80
Germall 115 (Imidazolidinyl Urea)	0.20
F. Perfume Oil	0.25

Manufacturing Procedure:

1. Prepare Phase "A" by heating the ingredients to 75C to dissolve the solids.
2. Prepare the Carbopol solution by dispersing Carbopol 941 into water using high speed agitation until a smooth slurry is obtained. Then heat the dispersion at about 80C until a smooth viscous solution is formed.
3. Dissolve the parabens in propylene glycol by warming solution to 55C. Add Phase "C" to "B".
4. Add Phase "B" & "C" to "A" with mixing.
5. When base is at 55C, add in Phase "D" stirring until the base is completely mixed in.
6. Add Germall solution and perfume when cool.

SOURCE: Scher Chemicals, Inc.: Formulas SK-104 and SK-105

Moisturizing Lotion (SK-106)

<u>Raw Materials:</u>	<u>Wt%</u>
A. Lanolin Alcohol	0.50
Solulan 98 (Laneth-10 Acetate)	0.50
Schercomid AME-70 (Acetamide MEA)	8.00
Propylene Glycol	4.00
Arlacel 165	1.00
Cetyl Alcohol	1.00
B. Water, deionized	76.25
Carbopol 941 (Carbomer-941)	0.50
C. Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D. Water, Deionized	4.50
Potassium Hydroxide (40%)	0.50
E. Water, Deionized	1.80
Germall 115 (Imidazolidinyl Urea)	0.20
F. Perfume Oil	0.25

Manufacturing Procedure:

1. Prepare Phase "A" by heating the ingredients to 75C to dissolve the solids.
2. Prepare the Carbopol solution by dispersing Carbopol 941 into water using high speed agitation until a smooth slurry is obtained. Then heat the dispersion at about 80C until a smooth viscous solution is formed.
3. Dissolve the parabens in propylene glycol by warming solution to 55C. Add Phase "C" to "B".
4. Add Phase "B & C" to "A" with mixing.
5. When base is at 55C, add in Phase "D" stirring until the base is completely mixed in.
6. Add Germall solution and perfume when cool.

SOURCE: Scher Chemicals, Inc.: Formula SK-106



Nutritive Lotion  
Oil Free

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
A-A1 Schercemol DISD/Diisostearyl Dimer Dilinoleate	2.00
Schercemol CO/Cetyl Octanoate	12.00
Arlacel 165/Glyceryl Stearate (and) PEG 100 Stearate	2.00
Stearyl Alcohol	0.60
Cetyl Alcohol	0.60
Stearic Acid	3.00
Silicone fl 350 cps	0.20
A2 Triethanolamine	1.00
B-B1 Deionized Water	57.50
Carbopol 941 2% Aq. Sln.	10.00
B2 Glycerin	3.00
B3 Triethanolamine	0.20
C- Germaben II	1.00
D- Tocopherol Acetate	0.05
Retinyl Palmitate	0.05
E-E1 Concentrate R	5.00
E2 Ginseng Extract	1.00
F- Fragrance	0.20
G- FD&C Red 4 0.10% Aq. Sln.	0.40
FD&C Yellow 5 0.10% Aq. Sln.	0.20

**Procedure:****Phase B:**

In the main beaker, disperse B1 at 75C. Add Glycerin. Add Triethanolamine to neutralize the Carbopol gel. Mix until a smooth gel is obtained.

**Phase A:**

Blend A1 and A2 together at 75-80C until homogeneous.

Add Phase A to Phase B with continuous mixing at 75-80C for fifteen minutes.

Cool batch to 60C and add Phase C. Continue to cool with mixing to 37C, than add Phase D, E, F, G in sequence. Continue mixing while cooling batch to 25-28C.

**SOURCE:** Scher Chemicals, Inc.: Formulation L-213-2

O/W Spray Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A. Inwitor 377 (Glyceryl Laurate/Citrate/Lactate)	2
Inwitor 928 (Glyceryl Cocoate)	3
Miglyol 812 (Caprylic/Capric Triglyceride)	8
B. Keltrol F (Xanthane based hydrogel builder)	0.5
Preservative	q.s.
Water up to	100
C. Fragrance	q.s.

Preparation:

A is heated to about 75C. B prepared and brought to the same temperature. B is emulsified into A. C is added at about 30C.

Rich Basic Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A. Inwitor 377 (Glyceryl Laurate/Citrate/Lactate)	7
Cetyl Alcohol	2.5
Inwitor 900 (Glyceryl Monostearate)	3
Miglyol 812 (Caprylic/Capric Triglyceride)	7
B. Glycerol	3
Preservative	q.s.
Water up to	100
C. Fragrance	q.s.

Preparation:

A warmed up to about 75C. B is brought to the same temperature and is emulsified into A. C is added at about 30C.

Thin Lotion for Towelettes

<u>Raw Materials:</u>	<u>Wt%</u>
A. Inwitor 377 (Glyceryl Laurate/Citrate/Lactate)	1
Ampholyt JB 130/K (Cocamidopropyl Betaine)	1
Preservative	q.s.
Water up to	100

Preparation:

All components are put together, heated to about 60C and stirred while cooling.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

**Protective Facial Lotion with Superior Substantivity**

This formulation produces a light lotion for daily facial use. It contains UVB sunscreen and exhibits superior substantivity, providing sun protection throughout the day, even when active.

**Ingredient/Function:** **Wt%****Part A:**

Stearic Acid/pH Modifier	2.50
Cetyl Alcohol/Opacifier	1.80
Cetyl Phosphate (and) DEA Cetyl Phosphate(1)/Emulsifier	2.50
Diisostearoyl Trimethylolpropane Siloxy Silicate (SF1318)(2)/Emollient/Film-former	5.00
Octyl Methoxycinnamate/UV absorber	7.00
Cyclopentasiloxane (SF1202)(2)/Emollient	5.00

**Part B:**

Glycerin/Humectant	4.00
Quaternium-15/Preservative	0.10
Xanthan Gum/Thickener/Stabilizer	0.25
Fragrance	q.s.
Water/Diluent	71.85

**Procedure:**

1. Heat Parts A and B in separate containers to 85-90C with agitation.
2. Add Part A to Part B with high shear agitation.
3. Cool to room temperature with continued mixing.

**Trade Names/Suppliers:**

- (1) Amphisol, Givaudan
- (2) GE Silicones

**Facial Lotion**

This lotion is a water-in-oil emulsion which is an excellent product for everyday facial use. It applies easily, with a wet feel, yet leaves a non-greasy, dry, silky finish. The use of SF1328 as a water-in-oil emulsifier is demonstrated in this formulation.

**Ingredient/Function:** **Wt%****Part A:**

Cyclomethicone (and) Dimethicone Copolyol (SF1328)(1)/Emulsifier	10.0
Cyclopentasiloxane (SF1202)(1)/Emollient (oil carrier)	8.5
Cyclopentasiloxane and Dimethicone (SF1214)(1)/Emollient/Film former	7.5

**Part B:**

Glycerin/Humectant	13.0
Sodium Chloride/Stabilizer	1.0
Polysorbate-80/Emulsifier	0.2
Quaternium-15/Preservative	0.1
Deionized Water/Diluent	59.7

**Procedure:**

1. Combine Part A ingredients in order shown, thoroughly mixing each component until homogeneous before adding the next ingredient.
2. Mix all ingredients of Part B together.
3. Slowly add Part B to Part A with good mixing. Gradually increase agitation to high shear as mixture thickens. Continue agitation for 5-10 minutes. Mixture will become very thick.
4. Mill on homogenizer for 1-2 minutes.

**SOURCE:** GE Silicones: Formulas SP 104 and SP 102

Protective Skin Lotion

This formulation employs Lubrajel TW which moisturizes the skin. The Panalane and stearyl alcohol leaves a protective occlusive barrier which slows down moisture efflux.

<u>Material:</u>	<u>Wt%</u>
1 Deionized Water	67.19
2 Oil of Orchids (WS)	1.50
3 Triethanolamine	0.24
4 Diammonium EDTA	0.10
5 Panalane L14E	7.00
6 Stearic Acid	2.00
7 Stearyl Alcohol	1.60
8 Polysorbate 80	1.00
9 Glycerol Monostearate	0.60
10 Propylene Glycol	1.00
11 Methyl Paraben	0.18
12 Propyl Paraben	0.05
13 Lubrajel TW	17.50
14 Floral Gardenia Fragrance 169-724	0.02
15 Rose Fragrance 34844	0.02

Procedure:

1. Prepare Phase "A" by combining components 1,2,3 and 4 in a vessel suitable for heating. Heat to 70-80C with stirring until homogeneous.
2. Prepare Phase "B" by combining components 5,6,7,8 and 9. Heat to 70-80C with stirring until all solids are melted.
3. Prepare Phase "C" by combining components 10,11 and 12. Heat to 50C with stirring until all solids are dissolved.
4. While maintaining 70-80C, slowly add Phase "B" to Phase "A" with high speed dispersion blade mixing.
5. Allow mixture to cool with continued mixing to less than 50C. Switch to low shear mixing and add Phase "C", the Lubrajel and the two fragrances.

SOURCE: Guardian Laboratories: Formulation #90213-A

**Protective Skin Lotion with Sunscreen (SP107)**

A water-in-oil formulation producing a light protective lotion with a SPF of 5-6 for daily use on the face or other exposed skin areas. Although the formulation is water-in-oil, it dries to a dry, non-greasy feel due to the use of silicone emulsifier SF1328.

<u>Ingredient/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
Cyclomethicone (SF1202) (1)/Emollient (oil carrier)	12.0
Mineral Oil (light)/Emollient (solubilizer)	1.0
Octyl Methoxycinnamate/UVB protection	5.0
Dimethicone (and) Trimethylsiloxysilicate (SS4267) (1)/ Film-former	3.0
Cyclomethicone (and) Dimethicone Copolyol (SF1328) (1)/ Emulsifier	10.0
Lanolin/Emollient	0.5
Titanium Dioxide (micronized)/UVA/UVB protection	3.0
<b>Part B:</b>	
Polysorbate-80/Emulsifier	0.2
Glycerin/Humectant	3.0
Sodium Chloride/Stabilizer	1.0
Quaternium-15/Preservative	0.1
Water	61.2

**Procedure:**

1. Combine Part A ingredients in order shown, thoroughly mixing each until homogeneous before adding the next ingredient. The solution should remain clear until TiO<sub>2</sub> is added.
2. Mix together all Part B ingredients.
3. Slowly add Part B to Part A with good mixing. Gradually increase agitation to high shear as mixture thickens. Continue agitation for 5-10 minutes. Mixture will become very thick.
4. Mill on homogenizer for 1-2 minutes.

**Trade Names/Suppliers:**

(1) GE Silicones

**SOURCE:** GE Silicones: Personal Care Formulary: Formula SC 102

Shea Butter Hand and Body LotionConcept Statement:

An elegant, emollient lotion and lactylate-based formula that provides consistent moisturization, softening and a pleasant skin feel.

Ingredients/Function:

	<u>Wt%</u>
1. Distilled/Deionized Water	77.05
2. Propylene Glycol/Humectant	3.00
3. Glycerine/Humectant	3.00
4. Tetrasodium EDTA/Stability	0.10
5. Methylparaben/Preservative	0.15
6. Pationic SSL (Sodium Stearoyl Lactylate)/Lactylate	0.45
7. Rita EGMS (Glycol Stearate)/Emulsifier	2.00
8. Rita GMS (Glyceryl Stearate)/Emulsifier	2.00
9. Shebu Refined (Shea Butter)/Emollient	2.00
10. Hydrogenated Coconut Oil/Emollient	4.00
11. Rita IPP (Isopropyl Palmitate)/Emollient	5.00
12. Ritalan (Lanolin Oil)/Emollient	1.00
13. Propylparaben/Preservative	0.05
14. DMDM Hydantoin/Preservative	0.20
15. Fragrance/Odor	

Compounding Procedure:

Combine items 1-5 and heat to 80C. Mix items 6-13 and heat to 80C. Add oil phase to water phase. Cool to 35C. Add items 14 and 15.

SOURCE: R.I.T.A. Corp.: LI Ref. No. 124-67B Formula

**Silk Protein Skin Lotion**

<u>Raw Materials:</u>	<u>Wt%</u>
Mineral Oil	3.0
Mackester SP (Glycol Stearate (and) Stearamide MEA)	2.0
Emulsifying Wax N.F.	3.0
Glyceryl Stearate & PEG-100 Stearate	2.0
Polysorbate 80	0.66
Sorbitan Palmitate	0.6
Glycerin	2.0
Mackamide AME-100 (Acetamide MEA)	1.0
Mackpro NSP (Oleyl/Palmityl/Palmitoleamidopropyl/Silk-hydroxypropyl Dimonium Chloride)	2.5
Mackstat DM (DMDM Hydantoin)	qs
D.I. Water, Fragrance	qs to 100.0

**Procedure:**

1. Melt first eight components in separate container to 75C.
2. In mixing tank, heat water to 78C then add Mackpro NSP.
3. Start mixing; add hot mixture of eight components slowly with good agitation; mix well for 20 minutes.
4. Start slow cooling with good mixing without aeration.
5. At 45C, add Mackstat DM and fragrance; mix until blended.
6. Adjust pH, if necessary, to 4.8-5.0

**SOURCE:** McIntyre Group Ltd.: Personal Care Formulary; Formulas

**Enriched Moisturizing Lotion (Before & After Tanning)**

<u>Raw Materials:</u>	<u>Wt%</u>
Sesame Oil U.S.P.	15.0
Polysynlane	20.0
Glyceryl Monostearate	3.0
Isopropyl Myristate	10.0
Carbopol 934	0.2
Propylene Glycol	10.0
Triethanolamine	1.0
Anhydrous Lanolin	5.0
Water	ad 100.0

**Other Uses:**

1. Polysynlane has food additive approval from the Welfare Ministry of Japan and was authorized for use as an additive for a chewing gum base.
2. Polysynlane is a refined hydrogenated polyisobutene, which has FDA approval (Subpart 121.2511) for use as a plasticizer in polyethylene food wrap.
3. Polysynlane has found use as a special lubricant for fine instruments and watches, and is being investigated as an ultra low temperature lubricant and motor oil additive.

**SOURCE:** Polyester Corp.: Suggested Formulation

Skin Lightening Lotion

<u>Ingredients:</u>	<u>Wt%</u>
<b>Phase A:</b>	
Water deionised	40.70
Stabileze 06	0.80
<b>Phase B:</b>	
Glyceryl Stearate and PEG-100 Stearate	6.50
Glyceryl stearate (Cerasynt SD)	4.00
Isocetyl stearate (Ceraphyl 494)	2.00
Octyldodecyl Stearoyl Stearate (Ceraphyl 847)	2.00
Diisopropyl Adipate (Ceraphyl 230)	2.50
Octyl palmitate (Ceraphyl 368)	3.00
Octyl methoxy cinnamate (Escacol 557)	4.00
Benzophenone (Escacol 567)	3.00
Octyl Salicylate (Escacol 587)	3.00
<b>Phase C:</b>	
Water, deionised	10.00
Polyvinylpyrrolidone (Povidern SK3)	1.00
Diazolidinyl Urea (Germall Plus)	0.20
Lactic acid (Purac PH 90)	4.50
Sodium lactate (Purasal S/PF 60)	9.00
Propylene Glycol	3.00
Fragrance	q.s.

**Procedure:**

1. In phase A, disperse Stabileze 06 in water and heat to 80 degrees Celsius with constant stirring until a translucent gel is obtained.
2. Cool down to 60 degrees Celsius and add triethanolamine and mix well. A clear gel will form.
1. Heat phase B to 70 degrees Celsius and stir until uniform.
2. Add Phase B to Phase A and homogenize.
3. In Phase C, dissolve Povidern and Germall Plus in deionised water. Then add in Purac PH 90, Purac S/PF 60 and propylene glycol with mixing after each addition.
6. Add Phase C to mixture in step 4 at 40-45 degrees Celsius. Continue stirring to room temperature.

Note: pH of lotion should be in the range of 4-4.5.  
To date formula passed 1 month stability test @ 50 degrees Celsius.

SOURCE: Purac America Inc.: ISP Formulation



**Substantive Skin Lotion Using Polymeric Emulsifiers**

A skin lotion which uses SF1318 as an emollient/film-former. SF1318 provides a breathable barrier which is very substantive, keeping active ingredients on the skin and providing water resistant properties. This is a simple formulation to demonstrate the film-forming properties of SF1318.

<b><u>Ingredient/Function:</u></b>	<b><u>Wt%</u></b>
<b>Part A:</b>	
Deionized Water/Diluent	85.05
Disodium EDTA/Chelating agent	0.05
Methylparaben/Preservative	0.20
Propylene Glycol/Humectant	2.00
<b>Part B:</b>	
Diisostearoyl Trimethylolpropane Siloxy Silicate (SF1318)(1)/Emollient/Film-former	10.00
Propylparaben/Preservative	0.10
Acrylates/C10-30 Alkyl Acrylate Crosspolymer(2)/ Polymeric emulsifier	0.25
Carbomer(3)/Thickener	0.35
Oleth-10/Solubilizer	0.30
Fragrance(4)	0.15
<b>Part C:</b>	
Triethanolamine/Neutralizer	1.50
Quaternium-15/Preservative	0.05

**Procedure:**

1. Heat water of Part A to 60C. Add remaining ingredients of Part A with moderate propeller agitation. Mix for 10 minutes.
2. Combine Part B with sweep agitation at ambient temperature. Mix until a smooth "paste" is obtained.
3. Add Part B to Part A with rapid propeller agitation. Mix 30 minutes or longer to ensure that polymers are completely dispersed.
4. Cool with moderate agitation to 40C. Add Part C to batch with moderate propeller agitation. Mix 20 minutes at 40C and cool to room temperature with agitation.

**Trade Names/Suppliers:**

- (1) GE Silicones
- (2) Pemulen TR-1, B.F. Goodrich Co.
- (3) Carbopol 981, B.F. Goodrich Co.
- (4) Fragrance HB-635, Shaw Mudge

**SOURCE: GE Silicones: Personal Care Formulary: Formula SP 106**

**Velvety Body Lotion**

A water-in-oil formulation which demonstrates the use of SF1528 as an emulsifier. The product applies as a rich moisturizing lotion, yet dries to a dry, non-greasy feel. SFE839 Elastomer Dispersion provides a soft, velvety feel to the skin and helps to produce a dry, non-tacky, non-greasy afterfeel.

<u>Ingredients/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
Sorbitan Oleate/Co-emulsifier	0.6
Cyclopentasiloxane (and) Dimethicone Copolyol(SF1528)(1)/Emulsifier	10.0
Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer(SFE839)(1)/Emollient/Detackifier	12.0
Cyclopentasiloxane(SF1202)(1)/Emollient	4.0
<b>Part B:</b>	
Glycerin/Humectant	1.0
Sodium Chloride/Stabilizer	1.0
Quaternium-15/Preservative	0.1
Water/Diluent	71.3

**Velvety Body Lotion**

A water-in-oil formulation which demonstrates the use of SF1328 as an emulsifier. The product applies as a rich moisturizing lotion, yet dries to a dry, non-greasy feel. SF1214 provides a soft, velvety feel to the skin. SF1202, cyclopentasiloxane, helps to produce a dry, non-tacky, non-greasy afterfeel.

<u>Ingredients/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
Sorbitan Oleate/Co-emulsifier	0.6
Cyclomethicone (and) Dimethicone Copolyol(SF1328)(1)/Emulsifier	10.0
Cyclopentasiloxane(SF1202)(1)/Emollient/Detackifier	6.0
Cyclopentasiloxane (and) Dimethicone(SF1214)(1)/Smooth/Silky Feel	10.0
<b>Part B:</b>	
Glycerin/Humectant	1.0
Sodium Chloride/Stabilizer	1.0
Quaternium-15/Preservative	0.1
Water/Diluent	71.3

**Procedure (Both Formulas):**

1. Combine Part A ingredients in order shown, thoroughly mixing each component until homogeneous before adding next ingredient.
2. Mix all ingredients of Part B together. Stir until homogeneous.
3. Slowly add Part B to Part A with good mixing. Gradually increase agitation to high shear as mixture thickens. Continue agitation for 20 minutes. Mixture will become very thick.
3. Homogenize for 1-2 minutes.

**SOURCE: GE Silicones: Formulas SP116 and SP118**

Velvety Body Lotion with Sunscreens

SFE839, Elastomer Dispersion is a substantive emollient, providing extraordinary smooth, silky and luxurious feel. This sunscreen gives a moisturizing and cushioning feel with smooth, soft and powdery finish.

<u>Ingredient/Function:</u>	<u>Wt%</u>
<b>Part A:</b>	
Deionized Water/Diluent	74.13
Tetrasodium EDTA/Chelating agent	0.05
PEG-8/Humectant	4.00
Phenoxyethanol (and) Methylparaben (and) Butylparaben (and) Ethylparaben (and) Propylparaben (1)/Preservative	0.25
Magnesium Aluminum Silicate/Thickener	0.25
<b>Part B:</b>	
Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer (SFE839) (2)/Film-former/Emollient	7.00
Octyl Methoxycinnamate/UV absorber	7.00
Octyl Salicylate/UV absorber	3.00
Benzophenone-3/UV absorber	3.00
Acrylates/C10-30 Alkyl Acrylate Crosspolymer (3)/ Emulsifier/Thickener	0.30
Carbomer (4)/Thickener	0.15
Sorbitan Oleate/Emulsifier	0.20
<b>Part C:</b>	
Fragrance	0.12
<b>Part D:</b>	
Triethanolamine 99%/Neutralizer	0.55

**Procedure:**

1. Heat water of Part A to 75C. Add remaining ingredients in order with moderate propeller agitation, making sure that all parabens have dissolved. Mix for 15 minutes, while cooling to 50C.
2. Combine Part B with sweep agitation at ambient temperature. Mix until a smooth "paste" is obtained.
3. Add Part B at room temperature to Part A (at 50C) with rapid propeller agitation. Mix for 30 minutes, or longer to ensure that the polymers are completely dispersed.
4. Cool with agitation to 45C. Add Part C to batch with propeller agitation. Mix 10 minutes.
5. Add Part D to batch at 40C. Mix with moderate agitation for 20 minutes. Cool to room temperature.
6. The pH should be 6-7.

**Trade Names/Suppliers:**

- (1) Phenonip, Nipa
- (2) GE Silicones
- (3) Pemulen TR-1, B.F. Goodrich
- (4) Carbopol-2984, B.F. Goodrich

SOURCE: GE Silicones: Personal Care Formulary: Formula SC106