



Distributed in the Interest  
of Product Development

# VANDERBILT

## *Formulary*



Anti-Aging  
Formulary No. 926

**R.T. Vanderbilt Company, Inc., 30 Winfield Street, P.O. Box 5150, Norwalk, CT 06856-5150**  
**Telephone: (203) 853-1400 - Fax: (203) 853-1452 - Web Site: [www.rtvanderbilt.com](http://www.rtvanderbilt.com)**

Before using, read, understand and comply with the information and precautions in the Material Safety Data Sheets, label and other product literature. The information presented herein, while not guaranteed, was prepared by technical personnel and, to the best of our knowledge and belief, is true and accurate as of the date hereof. No warranty, representation or guarantee, express or implied, is made regarding accuracy, performance, stability, reliability or use. This information is not intended to be all-inclusive, because the manner and conditions of use, handling, storage and other factors may involve other or additional safety or performance considerations. The user is responsible for determining the suitability of any material for a specific purpose and for adopting such safety precautions as may be required. R.T. Vanderbilt Company, Inc. does not warrant the results to be obtained in using any material, and disclaims all liability with respect to the use, handling or further processing of any such material. No suggestion for use is intended as, and nothing herein shall be construed as, a recommendation to infringe any existing patent, trademark or copyright or to violate any federal, state or local law or regulation.

## ANTI-AGING FORMULARY

**VANATURAL® Bentonite Clay**

**VEEGUM® Magnesium Aluminum Silicate**

**VANZAN® Xanthan Gum**

**VANATURAL** Bentonite Clay (INCI Name: Bentonite) and **VEEGUM** Magnesium Aluminum Silicate (INCI Name: Magnesium Aluminum Silicate) are water-washed smectite clays that provide a natural alternative to synthetic polymers for reliably stabilizing personal care emulsions and suspensions. **VANATURAL** is particularly suited for organic personal care products.

**VANZAN** (INCI Name: Xanthan Gum) is a natural high molecular weight exocellular polysaccharide derived from *Xanthomonas campestris*. Because of its protective function in nature, it is more resistant to shear, heat, bacterial, enzyme, and UV degradation than are most gums. **VANZAN** products are efficient thickeners as well as emulsion and suspension stabilizers. They also provide useful synergism with **VANATURAL** and **VEEGUM** clays.

### USING VANATURAL AND VEEGUM CLAYS

**VANATURAL** and **VEEGUM** products must be properly dispersed in water to provide their best performance. No other materials should be present in the water, because they can interfere with proper clay hydration and colloidal structure formation. The degree of clay hydration is directly proportional to the amount of energy used to disperse the product. The degree of hydration therefore increases as mixing time, mixing intensity or water temperature increase. One grade, **VEEGUM Ultra**, is relatively unaffected by changes in these mixing factors; adequate hydration can be achieved quickly, using room temperature water and a simple, slow-speed propeller mixer.

The following table provides guidelines for the minimum amounts of time suggested for the hydration of **VANATURAL** and **VEEGUM** products. Actual hydration times, in the laboratory or in production, will depend on the particular combination of batch size, mixer shear, and water temperature used. Whichever mixing conditions are used, it is very important that they be carefully controlled to achieve reproducible results in the final formulation.

Water Temp.	Mixer Type	Mixer Speed rpm	Minimum Suggested Mixing Time		
			VEEGUM	VANATURAL	VEEGUM Ultra
25°C	Propeller	800	120 min.	30 min.	15 min.
75°C	Propeller	800	45 min.	20 min.	10 min.
25°C	Homogenizer	3000	30 min.	20 min.	10 min.
75°C	Homogenizer	3000	15 min.	10 min.	10 min.

### USING VANZAN XANTHAN GUM

**VANZAN** products are soluble in both cold and warm water. To dissolve quickly and completely, they must first be properly dispersed so that individual gum particles are surrounded by the aqueous medium. The individual particles then hydrate and dissolve. Good dispersion is promoted by high shear mixing, blending the gum particles into a water-miscible non-solvent such as glycol or alcohol before addition to the aqueous phase, or dry blending with other formula ingredients, such as co-thickeners, salts, acids, abrasives or pigments, before addition to the aqueous phase.

### RECOMMENDED GRADES FOR SKIN CARE

Smectite Clays:

**VANATURAL** Rapidly hydrating high purity bentonite clay for most personal care applications.

**VEEGUM Ultra** A unique acidic smectite clay that is especially easy to hydrate.

**VEEGUM** The standard grade for a wide range of applications.

**VEEGUM F** Micronized powder grade for dry mixes and pressed powders.

Xanthan Gum:

**VANZAN NF** The standard grade for most personal care applications.

**VANZAN NF-C** Produces clear solutions; used when product clarity is essential.

### Nature's Defense Cream No. 572

	Wt. %
<b>A</b>   VANATURAL <sup>®</sup> Bentonite Clay	2.0
Water	76.5
Pentylene Glycol (Hydrolite <sup>®</sup> -5 <sup>1</sup> )	5.0
Sucrose Stearate (Surfhope <sup>®</sup> SE Cosme C-1811 <sup>2</sup> )	3.0
Cetearyl Alcohol	2.5
<b>B</b>   Isohexadecane (Arlamol <sup>®</sup> HD emollient <sup>3</sup> )	3.0
Cetearyl Ethylhexanoate (Luvitol <sup>®</sup> EHO <sup>4</sup> )	3.0
Squalane, ubiquinone (Lipogard <sup>5</sup> )	4.0
Dimethicone (Dow Corning 200 Fluid, 350 cst <sup>6</sup> )	1.0
<b>C</b>   Preservative, Fragrance	qs

<sup>1</sup>Symrise, Teterboro, NJ

<sup>2</sup>Arch Personal Care Products L.P., South Plainfield, NJ

<sup>3</sup>Uniqema, New Castle, DE

<sup>4</sup>BASF Corporation, Florham Park, NJ

<sup>5</sup>Pentapharm, Ltd., Basel, Switzerland/Centerchem, Inc., Norwalk, CT

<sup>6</sup>Dow Corning Corporation, Midland, MI

**Procedure:** While heating the water to 70°C, slowly add the VANATURAL while mixing at maximum available shear. Mix until fully hydrated. Add the pentylene glycol, mixing until uniform. Maintain the water phase at 70°C. Blend the Part B oil phase ingredients and heat to 70-75°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool with mixing; add Part C when the emulsion is <30°C.

### Beauty Fluid with Collagen No. 587

	Wt. %
<b>A</b>   VANATURAL Bentonite Clay	2.50
Water	73.00
Avena Sativa (Oat) Kernel Flour	0.50
(Tech-O <sup>®</sup> #11-070 Oat Flour <sup>1</sup> )	
VANZAN NF Xanthan Gum	0.50
Sucrose Stearate (Surfhope <sup>®</sup> SE Cosme C-1811 <sup>2</sup> )	1.25
<b>B</b>   Glycerin	6.00
Soluble Collagen (Collasol <sup>™</sup> M <sup>3</sup> )	5.00
Allantoin	0.25
<b>C</b>   DEA-Oleth-3 Phosphate (Crodofos <sup>™</sup> N-3 Neutral <sup>3</sup> )	1.00
Hydrogenated Polyisobutene (Polysynlane <sup>®4</sup> )	4.00
Mineral Oil (and) Lanolin Alcohol	3.00
(Vilvanolin L-101 <sup>5</sup> )	
Cholesterol and Lanesterol Esters of C10-C30 Fatty Acids (Super Sterol Ester <sup>3</sup> )	2.00
Dimethicone (Dow Corning 200 Fluid - 350 cs <sup>6</sup> )	1.00
<b>D</b>   Preservative, Fragrance	q.s.
Triethanolamine	q.s.

<sup>1</sup>Beacon CMP Corporation., Kenilworth, NJ

<sup>2</sup>Arch Personal Care Products L.P., South Plainfield, NJ

<sup>3</sup>Croda, Inc., Edison, NJ

<sup>4</sup>Rosow Cosmetics-USA, Laurel, NY

<sup>5</sup>Lubrizol Advanced Materials, Inc., Cleveland, OH

<sup>6</sup>Dow Corning Corporation, Midland, MI

**Procedure:** Sift the VANATURAL into the water agitated at maximum available shear. Once dispersed, slowly sift in the oat flour. Mix until the VANATURAL is fully hydrated and the oat flour is well dispersed. Add the VANZAN NF and mix until dissolved. Add the sucrose stearate and mix until uniform. Add Part B ingredients in the order listed and mix until uniform. Combine Part C ingredients and mix until uniform. Add Part C to Part A/B and mix until uniform. Add the preservative and fragrance and adjust pH to 6.5 ± 0.5 as necessary.

### Anti-Aging Skin Cream No. 578

	Wt. %
<b>A</b>   VEEGUM <sup>®</sup> Ultra Magnesium Aluminum Silicate	1.50
VANZAN <sup>®</sup> NF, Xanthan Gum	0.30
Water	75.92
Butylene Glycol	6.00
Sucrose Stearate (Surfhope <sup>®</sup> SE Cosme C-1811 <sup>1</sup> )	3.00
Steareth-2 (Brij <sup>®</sup> 72 <sup>2</sup> )	1.50
Steareth-21 (Brij <sup>®</sup> 721 <sup>2</sup> )	1.50
Cetearyl Alcohol	3.00
Caprylic/ Capric Triglyceride (Neobee <sup>®</sup> M-5 Cosmetic <sup>3</sup> )	2.50
PPG-11 Stearyl Ether (Arlamol <sup>®</sup> F <sup>2</sup> )	2.50
<b>B</b>   C12-15 Alkyl Benzoate (Finsolv <sup>®</sup> TN <sup>4</sup> )	1.00
Cyclomethicone (Dow Corning 345 Fluid <sup>5</sup> )	1.00
Cholesterol ( Cholesterol NF <sup>6</sup> )	0.10
Linoleic Acid (Emersol <sup>®</sup> 315 <sup>7</sup> )	0.10
Ceramide 2 (TIC-001 Ceramide 2 <sup>8</sup> )	0.025
Ceramide 3 (Ceramide III <sup>9</sup> )	0.025
Ceramide 6 II (Ceramide VI <sup>9</sup> )	0.025
<b>C</b>   Preservative, Fragrance	q.s.

<sup>1</sup>Arch Personal Care Products L.P., South Plainfield, NJ

<sup>2</sup>Uniqema, New Castle, DE

<sup>3</sup>Stepan Company, Northfield, IL

<sup>4</sup>Innospec Active Chemicals, Edison, NJ

<sup>5</sup>Dow Corning Corporation, Midland, MI

<sup>6</sup>Croda Inc., Edison, NJ

<sup>7</sup>Cognis Corporation, Ambler, PA

<sup>8</sup>Takasago International Corp., Rockleigh, NJ

<sup>9</sup>Degussa Goldschmidt Chemical Corporation, Hopewell, VA

**Procedure:** While heating the water to 85-90°C, slowly add the VANATURAL and VANZAN NF sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Add the butylene glycol and sucrose stearate, mixing until uniform. Maintain the water phase at 85-90°C. Blend the Part B oil phase ingredients and heat to 85-90°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool with mixing; add the Part C ingredients when the emulsion is <30°C.

### Conditioning Skin Cream with Jojoba Oil No. 571

	Wt. %
<b>A</b>   VANATURAL Bentonite Clay	2.0
Water	73.0
Butylene Glycol	5.0
Bis-PEG/PPG-16/16 PEG/PPG-16/16 dimethicone;	1.5
Caprylic/capric triglyceride (Abil <sup>®</sup> Care 85 <sup>1</sup> )	
Cetyl Alcohol (and) Glyceryl Stearate (and) PEG-75 stearate (and) Ceteth-20 (and) Steareth-20	4.5
<b>B</b>   (Emulium <sup>®</sup> Delta <sup>2</sup> )	
Cetyl Rinoleate (Tegosoft <sup>®</sup> CR <sup>1</sup> )	2.0
Simmondsia Chinesis (Jojoba) Seed Oil (Jojoba Oil Golden <sup>3</sup> )	6.0
Cyclomethicone (Dow Corning 345 Fluid <sup>4</sup> )	6.0
<b>C</b>   Preservative, Fragrance	qs

<sup>1</sup>Degussa Goldschmidt Chemical Corporation, Hopewell, VA

<sup>2</sup>Gattefosse Corporation, Paramus, NJ

<sup>3</sup>Desert Whale Jojoba Co., Inc., Tucson, AZ

<sup>4</sup>Dow Corning Corporation, Midland, MI

**Procedure:** While heating the water to 75°C, slowly add the VANATURAL while mixing at maximum available shear. Mix until fully hydrated. Add the butylene glycol, mixing until uniform. Maintain the water phase at 75°C. Blend the Part B oil phase ingredients and heat to 75-80°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool with mixing; add Part C when the emulsion is <30°C.

**Rejuvenating Lotion No. 574**

	Wt. %	
<b>A</b>	<b>VANATURAL</b> Bentonite Clay	2.0
	<b>VANZAN NF</b> Xanthan Gum	0.5
	Water	72.5
	Butylene Glycol	3.0
<b>B</b>	Cyclomethicone (and) Dimethicone (and) Petrolatum (Gel Base BSM-PT <sup>1</sup> )	7.0
	C12-15 Alkyl Benzoate (Finsolv <sup>®</sup> TN <sup>2</sup> )	4.0
	Cetearyl Alcohol	1.0
	Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165 VEG <sup>3</sup> )	5.0
<b>C</b>	Water (and) Aloe Barbedensis Leaf Extract (and) Yeast (Sacchromyces) Extract (Betavera <sup>®1</sup> )	5.0
	Preservative, Fragrance	qs

<sup>1</sup>Arch Personal Care Products L.P., South Plainfield, NJ<sup>2</sup>Innospec Active Chemicals, Edison, NJ<sup>3</sup>Uniqema, New Castle, DE

**Procedure:** While heating the water to 70-75°C, slowly add the **VANATURAL** and **VANZAN NF** sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Add the butylene glycol, mixing until uniform. Maintain the water phase at 70-75°C. Blend the Part B oil phase ingredients and heat to 70-75°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool with mixing; add the Part C ingredients in order when the emulsion is <30°C.

**Moisturizing Lotion with Sunscreen No. 567**

	Wt.%	
<b>A</b>	<b>VEEGUM Ultra</b> Magnesium Aluminum Silicate	1.0
	Water	77.3
	Glycerin, 96%	2.7
	Zinc Oxide (Zinc Oxide neutral H&R <sup>1</sup> )	2.0
<b>B</b>	Glyceryl Stearate (and) Ceteareth-20 (and) Ceteareth-12 (and) Cetearyl Alcohol (and) Cetyl Palmitate (Emulgade <sup>®</sup> SE-PF <sup>2</sup> )	6.0
	Glyceryl Stearate (Kessco <sup>®</sup> GMS Pure <sup>3</sup> )	2.0
	Caprylic/Capric Triglyceride (Neobee M-5 <sup>3</sup> )	5.0
	Mineral Oil, USP/NF Grade	2.0
<b>C</b>	Octyl Methoxycinnamate (Neo Heliopan <sup>®</sup> AV <sup>1</sup> )	2.0
	Preservative, Fragrance	q.s.

<sup>1</sup>Symrise, Teterboro, NJ<sup>2</sup>Cognis Corporation, Ambler, PA<sup>3</sup>Stepan Company, Northfield, IL

**Procedure:** While heating the water to 85°C, slowly add the **VEEGUM Ultra** while mixing at maximum available shear. Mix until fully hydrated. Add the remaining water phase ingredients, mixing until the zinc oxide is uniformly dispersed. Maintain the water phase at 85°C. Blend the Part B oil phase ingredients and heat to 85°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool with mixing; add the Part C ingredients when the emulsion is <30°C.

**All Natural Lotion No. 589**

	Wt. %	
<b>A</b>	<b>VANATURAL</b> Bentonite Clay	2.5
	<b>VANZAN NF</b> Xanthan Gum	0.5
	Water	78.0
<b>B</b>	Cetearyl Wheat Straw Glycosides (and) Cetearyl Alcohol (Xyliance <sup>TM1</sup> )	5.0
	Orbignya Oleifera Seed Oil (Cropure <sup>®</sup> Babassu <sup>2</sup> )	5.0
	Simmondsia chinensis (jojoba) seed oil (Jojoba Oil Golden <sup>3</sup> )	5.0
	Butyrospermum Parkii (Shea) Butter (Tomaso Shea Butter <sup>1</sup> )	2.0
	Theobroma cacao (cocoa) seed butter (Cocoa Butter NF <sup>4</sup> )	2.0
<b>C</b>	Preservative, Fragrance	qs

<sup>1</sup>Kemira Specialty, Northvale, NJ<sup>2</sup>Croda Inc., Edison, NJ<sup>3</sup>Desert Whale Jojoba Co. Inc., Tucson, AZ<sup>4</sup>RITA Corp., Crystal Lake, IL

**Procedure:** While heating the water to 70-75°C, slowly add the **VANATURAL** and **VANZAN NF** sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Maintain the water phase at 70-75°C. Blend the Part B oil phase ingredients and heat to 70-75°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool with mixing; add the Part C ingredients when the emulsion is <30°C.

**Super Moisturizing Lotion No. 437**

	Wt.%	
<b>A</b>	<b>VEEGUM</b> Magnesium Aluminum Silicate	1.00
	<b>VANZAN NF</b> Xanthan Gum	0.50
	Water	74.50
<b>B</b>	Sodium PCA (Ajidew <sup>®</sup> N-50 <sup>1</sup> )	3.00
	Glycerin	5.00
<b>C</b>	Hydrogenated Polyisobutylene (Polysynlane <sup>®2</sup> )	4.00
	Mineral Oil (and) Lanolin Alcohol (Amerchol L-101 <sup>®3</sup> )	3.00
	Cetyl Alcohol	2.00
	Isopropyl Myristate	2.00
	Sorbitan Palmitate	1.20
<b>D</b>	Polysorbate 40 (Tween <sup>®</sup> 40 <sup>4</sup> )	3.80
	Citric Acid to pH 5.5	q.s.
	Preservative, Fragrance	q.s.

<sup>1</sup>Ajinimoto USA, Inc., Fort Lee, NJ<sup>2</sup>Rosow Cosmetics-USA, Laurel, NY<sup>3</sup>Amerchol Corporation, Edison, NJ<sup>4</sup>Uniqema, New Castle, DE

**Procedure:** While heating the water to 50-55°C, slowly add the **VANATURAL** and **VANZAN NF** sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Add Part B and mix until dissolved. Maintain the water phase at 50-55°C. Blend the Part C oil phase ingredients and heat to 50-55°C. Add the oil phase to the water phase with good agitation; mix until uniform. Avoid incorporating air. Cool with mixing. Add the Part D ingredients when the emulsion is < 30°C.

**Skin Renewal Cream No. 573**

		Wt. %
A	VANATURAL <sup>®</sup> Bentonite Clay	2.5
	Water	77.0
	Glycerin	5.0
B	Cetearyl Alcohol (and) PEG-40 Castor Oil (and) Sodium Cetearyl Sulfate (Emulgade <sup>®</sup> F <sup>1</sup> )	5.0
	Potassium Cetyl Phosphate (Arlatone <sup>®</sup> MAP 160K <sup>2</sup> )	0.5
	Dicaprylyl Carbonate (Cetiol <sup>®</sup> CC <sup>1</sup> )	5.0
	C12-15 Alkyl Ethylhexanoate (Finester <sup>™</sup> EH-25 <sup>3</sup> )	5.0
C	Preservative, Fragrance	qs

<sup>1</sup> Cognis Corporation, Care Chemicals, Cincinnati, OH<sup>2</sup> Uniqema, New Castle, DE<sup>3</sup> Innospec Active Chemicals, Edison, NJ

**Procedure:** While heating the water to 80°C, slowly add the VANATURAL while mixing at maximum available shear. Mix until fully hydrated. Add the glycerin, mixing until uniform. Maintain the water phase at 80°C. Blend the Part B oil phase ingredients and heat to 80°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool with mixing; add Part C when the emulsion is <30°C.

**Dry Skin Treatment Lotion No. 362**

		Wt.%
A	VEEGUM Magnesium Aluminum Silicate	1.40
	VANZAN NF Xanthan Gum	0.35
	Water	72.25
	Glycerin	4.00
B	Cetyl Acetate (and) Acetylated Lanolin Alcohol (Acetulan <sup>®1</sup> )	4.00
	C <sub>12-15</sub> Alkyl Benzoate (Finsolv <sup>®</sup> TN <sup>2</sup> )	4.00
	Hydrogenated Polyisobutylene (Polysynlane <sup>®3</sup> )	3.00
	Cocoa Butter	4.00
	Petrolatum	2.00
	Glyceryl Stearate (and) PEG-100 Stearate (Arlacel <sup>®</sup> 165 VEG <sup>3</sup> )	5.00
C	Preservative, Fragrance	q.s.

<sup>1</sup> Amerchol Corporation, Edison, NJ<sup>2</sup> Innospec Active Chemicals, Edison, NJ<sup>3</sup> Rossow Cosmetics-USA, Laurel, NY<sup>4</sup> Uniqema, New Castle, DE

**Procedure:** While heating the water to 70-75°C, slowly add the VEEGUM and VANZAN NF sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Add the glycerin, mixing until uniform. Maintain the water phase at 70-75°C. Blend the Part B oil phase ingredients and heat to 70-75°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool with mixing; add the Part C ingredients in order when the emulsion is <30°C.

**Green Tea Instant Facial No. 542**

	Wt. %
VEEGUM F Magnesium Aluminum Silicate	5
Kaolin Clay, Cosmetic Grade	67
Calamine, USP	20
Polyvinylpyrrolidone (PVP K-30 <sup>1</sup> )	5
Allantoin <sup>1</sup>	2
Green Tea Extract <sup>2</sup>	1

<sup>1</sup> International Specialty Products, Wayne, NJ<sup>2</sup> Greentech, USA, Yarmouth, ME**Procedure:** Mix powders until uniformly blended.**Use:** Mix powder with sufficient water, witch hazel or honey to make a spreadable paste.**Moisturizing Cream with Sunscreen No. 568**

		Wt.%
A	VEEGUM Ultra, Magnesium Aluminum Silicate	1.5
	Water	74.5
	Glycerin, 96%	4.0
	Zinc Oxide (Zinc Oxide neutral H&R <sup>1</sup> )	2.0
B	Emulsifying Wax NF (Polawax <sup>™2</sup> )	12.0
	PPG-2 Myristyl Ether Propionate (Crodamol <sup>™</sup> PMP <sup>2</sup> )	4.0
	Octyl Methoxycinnamate (Neo Heliopan AV <sup>1</sup> )	2.0
C	Preservative, Fragrance	q.s.

<sup>1</sup> Symrise, Teterboro, NJ<sup>2</sup> Croda Inc., Edison, NJ

**Procedure:** While heating the water to 75-80°C, slowly add the VEEGUM Ultra while mixing at maximum available shear. Mix until fully hydrated. Add the remaining water phase ingredients, mixing until the zinc oxide is uniformly dispersed. Maintain the water phase at 75-80°C. Blend the Part B oil phase ingredients and heat to 75-80°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool with mixing; add Part C when the emulsion is <30°C.

**Sun Protection Cream No. 566**

		Wt.%
A	VEEGUM Ultra Magnesium Aluminum Silicate	1.0
	Water	57.8
	Glycerin, 96%	2.7
	Zinc Oxide (Zinc Oxide neutral H& R <sup>1</sup> )	10.0
B	Glyceryl Stearate (and) PEG-100 Stearate (Arlacel <sup>®</sup> 165 VEG <sup>2</sup> )	4.0
	Cetareth-20 (Eumulgin <sup>®</sup> B-2 <sup>3</sup> )	1.0
	Cetearyl Alcohol	3.0
	Caprylic/Capric Triglyceride (Neobee M-5 <sup>4</sup> )	4.0
	Dicaprylyl Ether (Cetiol <sup>®</sup> OE <sup>3</sup> )	3.0
	Dimethicone (DC 200 Fluid, 350 cSt <sup>5</sup> )	1.0
	Octyl Salicylate (Neo Heliopan <sup>®</sup> OS <sup>1</sup> )	5.0
	Octyl Methoxycinnamate (Neo Heliopan AV <sup>1</sup> )	7.5
C	Preservative, Fragrance	q.s.

<sup>1</sup> Symrise, Teterboro, NJ<sup>2</sup> Uniqema, New Castle, DE<sup>3</sup> Cognis Corporation, Ambler, PA<sup>4</sup> Stepan Company, Northfield, IL<sup>5</sup> Dow Corning Corporation, Midland, MI

**Procedure:** While heating the water to 75-80°C, slowly add the VEEGUM Ultra while mixing at maximum available shear. Mix until fully hydrated. Add the remaining water phase ingredients, mixing until the zinc oxide is uniformly dispersed. Maintain the water phase at 85°C. Blend the Part B oil phase ingredients and heat to 75-80°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool with mixing; add the Part C ingredients when the emulsion is <30°C.

**Body Wash Cream for Sensitive Skin No. 505**

		Wt. %
A	VEEGUM <i>Ultra</i> Magnesium Aluminum Silicate	2.0
	Deionized Water	63.0
B	Sodium Cocoyl Isothionate (Turanol <sup>®</sup> I-78 <sup>1</sup> )	25.0
	Cocamidopropyl hydroxysultaine (Mirataine <sup>®</sup> CBS <sup>2</sup> )	10.0
C	Preservative, Fragrance	qs

<sup>1</sup>Innospec Active Chemicals, Edison, NJ<sup>2</sup>Rhodia, Inc., Cranbury, NJ

**Procedure:** While heating the water to 60-65°C, slowly add the VEEGUM *Ultra* while agitating at maximum available shear. Continue mixing until fully hydrated. Maintaining temperature, slowly add Part B ingredients in the order shown, mixing after each addition until smooth and uniform. Cool with mixing to < 45°C and then add Part C. Adjust as necessary to pH 5.5 ± 0.5. This formula can be easily converted to a body scrub by the incorporation of 5% polyethylene beads.

**Exfoliating Facial Scrub Containing Tea Tree Oil No. 555**

		Wt. %
A	Water	71.13
	VANZAN NF-C Xanthan Gum	1.10
	Disodium EDTA	0.05
B	Cocamidopropyl Betaine (Amphosol <sup>®</sup> CA <sup>1</sup> )	10.00
	Plantaren <sup>®</sup> 2000N <sup>2</sup> , Decyl Glucoside	6.60
	Water (and) Melaleuca Oil (and) Ethoxylated Castor Oil (and) Polysorbate 20 (Water-Soluble Tea Tree Oil <sup>3</sup> )	10.00
	Melaleuca Alternifolia Leaf Powder (Melafresh <sup>®</sup> Exfol 100 <sup>3</sup> )	1.00
C	Preservative, Fragrance	q.s.
	Triethanolamine	0.12

<sup>1</sup> Stepan Company, Northfield, IL<sup>2</sup> Cognis Corporation, Ambler, PA<sup>3</sup> Southern Cross Botanicals PTY Ltd, Lennox Head, NSW, Australia

**Procedure:** Sift the VANZAN NF-C into the water agitated at maximum available shear. Mix until completely dissolved. Add Part B ingredients separately, mixing after each until uniform. Avoid air entrapment. Add the preservative and fragrance and mix until uniform. Add triethanolamine to adjust pH to 6.5 ± 0.5.

**Body Wash Spray No. 500**

		Wt.%
A	VEEGUM <i>Ultra</i> , Magnesium Aluminum Silicate	2.0
	Deionized Water	58.5
B	Disodium Laureth Sulfosuccinate (Stepan Mild-SL3 <sup>1</sup> )	13.0
	Cocamidopropyl Hydroxysultaine (Mirataine <sup>®</sup> CBS <sup>2</sup> )	5.0
	Polysorbate 20 (Tween <sup>®</sup> 20 <sup>3</sup> )	1.5
	Cocamidopropyl Betaine (Amphosol <sup>®</sup> CA <sup>1</sup> )	3.0
	Sodium Laureth Sulfate (Steol <sup>®</sup> CS-230 <sup>1</sup> )	14.0
	Jojoba Esters (Floresters <sup>®</sup> -15 <sup>4</sup> )	3.0
C	Preservative, Fragrance	q.s.

<sup>1</sup>Stepan Company, Northfield, IL<sup>2</sup>Rhodia, Inc., Cranbury, NJ<sup>3</sup>Uniqema, New Castle, DE<sup>4</sup>Floratch Americas, Chandler, AZ

**Procedure:** Slowly add the VEEGUM *Ultra* to the water while mixing at maximum available shear. Mix until fully hydrated. At reduced mixing speed, very slowly add the Part B ingredients in the order shown, mixing after each addition until uniform. Avoid air entrapment. Add the Part C ingredients and adjust as necessary to pH 5.5 ± 0.5.

**Trademark Information:**

VANATURAL, VEEGUM and VANZAN are registered trademarks of R.T. Vanderbilt Company, Inc.

Abil and Tegosoft are registered trademarks of Goldschmidt GmbH Corporation.

Acetulan is a registered trademark of Lubrizol Corporation.

Ajidew is a registered trademark of Ajinomoto Company, Inc.

Amphosol, Kessco, Neobee and Steol are registered trademarks of Stepan Company.

Arlacel, Arlamol, Brij and Tween are registered trademarks of ICI Americas, Inc.

Betavera is a registered trademark of Arch Personal Care Products L.P.

Cetiol, Emersol, Emulgade, Eumulgin and Plantaren are registered trademarks of Cognis GmbH Corporation.

Collasol, Crodafos, Crodamol and Polawax are trademarks of Croda, Inc.

Cropure is a registered trademark of Croda, Inc.

Emulium is a registered trademark of Gattefosse SAS.

Finester is a trademark of Innospec Performance Chemical Company.

Finsolv is a registered trademark of Innospec Performance Chemical Company.

Floraesters is a registered trademark of International Flora Technologies, Ltd.

Hydrolite is a registered trademark of Symrise GmbH Company.

Lipogard is a trademark of Pentapharm Ltd.

Luvitol is a registered trademark of BASF Aktiengesellschaft Corporation.

Melafresh is a trademark of Juldor Pty Ltd.

Mirataine is a registered trademark of Rhone-Poulenc, Inc.

Neo Heliopan is a registered trademark of Haarmann &amp; Reimer GmbH.

Polysynlane is a registered trademark of NOF Corporation.

Surfhope is a registered trademark of Mitsubishi Chemical Corporation.

Tech-O is a registered trademark of Beacon CMP Corporation.

Vilvanolin is a trademark of Noveon, Inc.

Xyliance is a trademark of Soliance.

03/2008