



## BATH & HAIR CARE FORMULARY

**VANATURAL**® Bentonite Clay

**VEEGUM**® Magnesium Aluminum Silicate

**VANZAN**® Xanthan Gum

**VEEGUM** and **VANATURAL** clay products have a unique place in the formulation of body wash, scrub and shampoo products. As water-washed natural clays, they improve the skin feel of surfactant-based body washes, converting slippery to silky. In scrubs, they maintain a uniform dispersion of solid exfoliants. In treatment shampoos, these clays have long been valued for keeping insoluble active ingredients uniformly suspended.

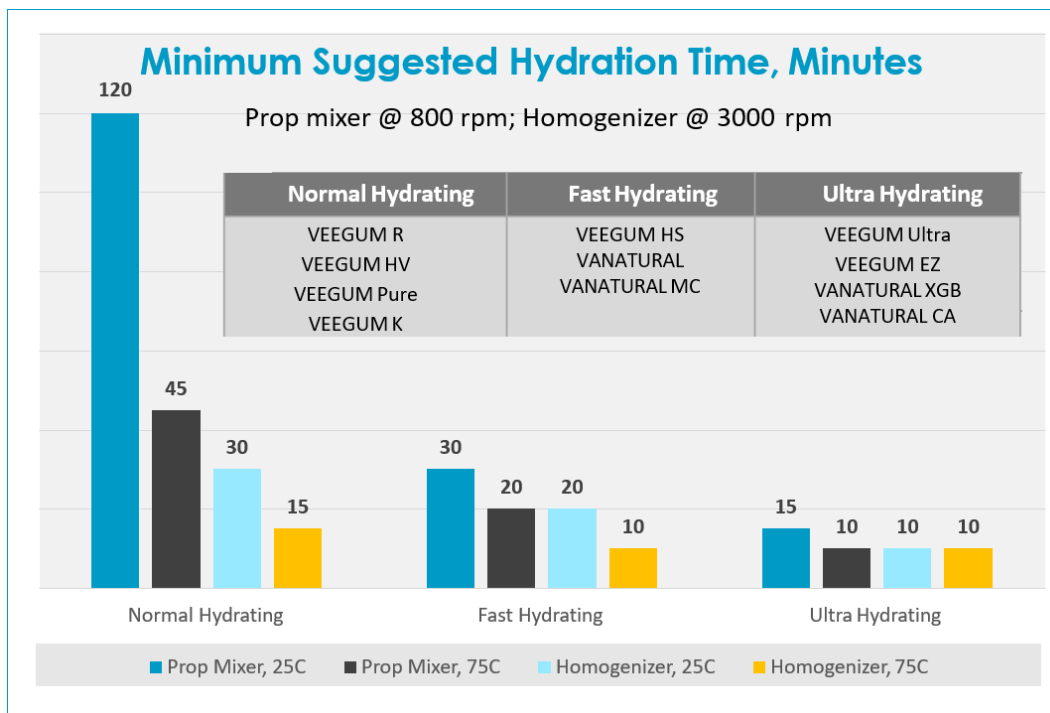
**VANATURAL**, **VANATURAL XGB** and **VEEGUM Pure** clays are authorized by ECOCERT Greenlife™ as complying with the ECOCERT and COSMOS standards for ecological and organic cosmetics.

**VANZAN** Xanthan Gum products are efficient thickeners as well as emulsion and suspension stabilizers. They are authorized by ECOCERT Greenlife™ as complying with the ECOCERT and COSMOS standards for ecological and organic cosmetics. **VANZAN** Xanthan Gum products provide useful synergism with **VEEGUM** and **VANATURAL** clays.

### USING VEEGUM AND VANATURAL CLAYS

**VEEGUM** and **VANATURAL** clays 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 the proper hydration of the clay and the formation of the colloidal structure. 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. Certain “Ultra Hydrating” grades, are 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 suggested minimum mixing times 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.



**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 **VEEGUM®** or **VANATURAL®** clays, co-thickeners, salts, acids, abrasives or pigments before addition to the aqueous phase.

**RECOMMENDED GRADES FOR BATH AND HAIR CARE FORMULATIONS**

Smectite Clays:

- VANATURAL® MC** Rapidly hydrating, high purity bentonite clay.
- VANATURAL** ECOCERT/COSMOS version of VANATURAL MC.
- VANATURAL XGB** A high efficiency synergistic blend of purified bentonite clay and xanthan gum.
- VEEGUM® Ultra** A uniquely white, acidic smectite clay that is especially easy to hydrate.
- VEEGUM EZ** A unique acidic smectite clay that is especially easy to hydrate.
- VEEGUM R** The standard grade for a wide range of applications.
- VEEGUM Pure** ECOCERT/COSMOS version of VEEGUM R.
- VEEGUM HS** Highest electrolyte stability, minimum acid demand.

Xanthan Gum:

- VANZAN® NF** The standard personal care grade.
- VANZAN NF-C** High clarity solutions grade.

APPLICATION GUIDE	VEEGUM®		VANATURAL®		VANZAN®
	Ultra/EZ	R/Pure	XGB	MC/(Std)	NF/NF-C
Facial Scrub			X	X	X
Conditioning Shampoo	X				
Dandruff Shampoo		X			
Hair Conditioner			X		
Body Wash	X	X			X
Shaving Cream	X				X
After-Shave	X	X			X
“Instant” Products				X	
Facial Scrub			X	X	X

VEEGUM, VANATURAL and VANZAN are registered trademarks of Vanderbilt Minerals, LLC

5/18/2023

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**Gentle Cleansing Sulfate-free Facial Scrub No. 645**

		<b>Wt.%</b>
<b>A</b>	<b>VEEGUM® HS</b> Magnesium Aluminum Silicate	4.00
	Water	63.10
	Tetrasodium EDTA	0.10
	Propanediol (Zemea® propanediol <sup>1</sup> )	2.00
	Glycerin	2.00
<b>B</b>	Sodium Lauroyl Methyl Isethionate (Iselux® LQ-CLR <sup>2</sup> )	12.50
	Cocamidopropyl Betaine (Amphosol® HCG <sup>3</sup> )	10.00
	Dimethyl Lauramide/Myristamide (NINOL® CAA <sup>3</sup> )	1.80
	Hydroxyethyl Urea (Hydrovance® Moisturizing Agent <sup>4</sup> )	2.00
<b>C</b>	Preservative	q.s.
<b>D</b>	Hydrogenated Castor Oil (Naturescrub® H20 <sup>5</sup> )	2.50
<b>E</b>	Citric Acid, 20%	q.s.

**Procedure:** Slowly add the **VEEGUM® HS** to the water agitated at maximum available shear. Mix until fully hydrated. Then, add the rest of the Part A ingredients and mix in. Under slow speed/low shear mixing, slowly add Parts B, C & D and mix in thoroughly. If necessary, adjust pH to 6.0 ± 0.5 with citric acid.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>DuPont Tate & Lyle Bio Products Company, LLC, Wilmington, DE

<sup>2</sup>Innospec Performance Chemicals, Salisbury, NC

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

<sup>4</sup>Nouryon Surface Chemistry, Amsterdam, The Netherlands

<sup>5</sup>Micro Powders, Inc., Tarrytown, NY

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Iselux is a registered trademark of Innospec Limited.

Naturescrub is a registered trademark of Micro Powders, Inc.

Zemea is a registered trademark of DuPont Tate &amp; Lyle Bio Products Company, LLC.

Rev03/11/19

**Cranberry Seed Face Scrub Cream No. 600**

	<b>Wt. %</b>
<b>A</b>   <b>VANATURAL® XGB</b> Bentonite Clay	5.0
Water	63.5
Glycerin	2.0
<b>B</b>   Carthamus Tinctorius (Safflower) Oleosomes/Glycerin/Water (Hydresia™ G2 <sup>1</sup> )	12.5
<b>C</b>   Decyl Glycocide (Plantaren® 2000 N UP <sup>2</sup> )	7.0
Cocamidopropyl Betaine (Amphosol® CA <sup>3</sup> )	3.0
<b>D</b>   Vaccinium Macrocarpon (Cranberry) Seed (ESP Cranberry Seeds 30+ <sup>4</sup> )	5.0
<b>E</b>   Cocamide DEA (Ninol® 40-CO <sup>3</sup> )	2.0
<b>F</b>   Preservative	q.s.

**Procedure:** Add the **VANATURAL® XGB** slowly to the water agitated at high speed. Mix until smooth. Add the glycerin and mix until uniform. With slow speed/low shear prop mixing, add Part B and mix until uniform. Refer to the manufacturer's specific recommendations for incorporating oleosomes. With slow speed mixing, to avoid air incorporation, add Parts C, D, E and F in order, mixing until the batch is thickened and uniform.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Botaneco, Bensalem, PA

<sup>2</sup>BASF Corp., Florham Park, NJ

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

<sup>4</sup>Earth Supplied Products, Naples, FL

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Plantaren is a registered trademark of Cognis IP Management GMBH.

Rev01/21/2013

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

		<b>Wt. %</b>
<b>A</b>	Water	71.13
	<b>VANZAN® NF-C</b> Xanthan Gum	1.10
	Disodium EDTA	0.05
<b>B</b>	Cocamidopropyl Betaine (Amphosol® CA <sup>1</sup> )	10.00
	Decyl Glucoside (Plantaren® 2000N <sup>2</sup> )	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® Exfol 100 <sup>3</sup> )	1.00
<b>C</b>	Preservative	q.s.
	Triethanolamine	0.12

**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 mix until uniform. Add triethanolamine to adjust pH to 6.5 ± 0.5.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Stepan Company, Northfield, IL

<sup>2</sup>BASF Care Creations, Florham Park, NJ

<sup>3</sup>Southern Cross Botanicals PTY Ltd., Lennox Head, NSW, Australia

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Melafresh is a registered trademark of Juldon Pty Ltd.

Plantaren is a registered trademark of Cognis IP Management GMBH.

Rev01/21/2013

**Bisabolol Cleansing Gel No. 557**

		<b>Wt. %</b>
<b>A</b>	<b>VANZAN® NF-C</b> Xanthan Gum	1.00
	Water	80.74
	Disodium EDTA	0.05
<b>B</b>	Bisabolol (Alpha-Bisabolol Natural <sup>1</sup> )	0.20
	Ethanol, 96%	15.00
	Panthenol (and) Propylene Glycol (D-Panthenol 50P <sup>1</sup> )	1.00
	PEG-40 Hydrogenated Castor Oil (Cremophor® CO 40 <sup>1</sup> )	2.00
<b>C</b>	Preservative	q.s.

**Procedure:** Slowly add the **VANZAN® NF-C** to the water agitated at maximum available shear. Mix until fully dissolved. Add the disodium EDTA and mix until dissolved. Combine and mix the Part B ingredients until clear. Add Part B to Part A and mix until uniform. Add Part C and mix until uniform. Adjust as necessary to pH 6.5 ± 0.5.

**RAW MATERIAL SUPPLIERS**<sup>1</sup>BASF Corporation, Florham Park, NJ**TRADEMARKS****VANZAN** is a registered trademark of Vanderbilt Minerals, LLC.

Cremophor is a registered trademark of BASF Aktiengesellschaft Corporation.

Rev01/30/2013



**Extra Mild Facial Cleanser No. 553**

		<b>Wt.%</b>
<b>A</b>	<b>VANZAN® NF-C</b> Xanthan Gum	1.0
	Water	76.2
<b>B</b>	C12-15 Alkyl Benzoate (Finsolv® TN <sup>1</sup> )	5.0
	PEG-14 Dimethicone (Dow Corning® 193 <sup>2</sup> )	1.2
<b>C</b>	Cocamidopropyl Betaine (Amphosol® CA <sup>3</sup> )	10.0
	Decyl Glucoside (Plantaren® 2000N <sup>4</sup> )	6.6
<b>D</b>	Preservative	q.s.

**Procedure:** Sift the **VANZAN® NF-C** into the water agitated at maximum available shear. Mix until completely dissolved. Blend Part B ingredients, then add to Part A and mix thoroughly. Add Part C ingredients separately and mix thoroughly after each addition. Avoid air entrapment. Add the preservative and mix until uniform.

**RAW MATERIAL SUPPLIERS**<sup>1</sup>Innospec Active Chemicals, Edison, NJ<sup>2</sup>Dow Corning Corporation, Midland, MI<sup>3</sup>Stepan Chemical Co., Northfield, IL<sup>4</sup>BASF Corporation, Florham Park, NJ**TRADEMARKS****VANZAN** is a registered trademark of Vanderbilt Minerals, LLC.

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Plantaren is a registered trademark of Cognis IP Management GMBH.

Rev07/01/2013

**Instant Facial Wash/Cleansing Mask No. 656**

	<b>Wt. %</b>
<b>VANATURAL</b> <sup>®</sup> or <b>VANATURAL MC</b> Bentonite Clay	5.0
Sodium Cocoyl Isethionate (Jordapon <sup>®</sup> SCI Powder <sup>1</sup> )	40.0
Sodium Lauroyl Sarcosinate (SP Crodasinic <sup>™</sup> LS95NT MBAL-PW-(RB) <sup>2</sup> )	1.0
Simmondsia Chinensis (Jojoba) Seed Powder (Lipo <sup>®</sup> JJM 24/60 <sup>3</sup> )	10.0
Colloidal Kaolin USP/BC (Colloidal Kaolin – USP/BC 2457 <sup>4</sup> )	44.0

**Procedure:** Mix powders until uniformly blended.

**Uses:**

**For Facial Wash:** Transfer about 1/8 teaspoon (0.63 ml) of the powder onto the hand. Add a small amount of water while rubbing the hands together to produce foam. Then, wash the face and rinse off with water.

**For Cleansing Mask:** Transfer a small amount of the powder to a separate container. While slowly adding water dropwise, stir to form a paste of the desired consistency. Apply the mask to the face and allow it to dry. Rinse off with water using gentle rubbing for the best exfoliant effect.

**RAW MATERIAL SUPPLIERS**

<sup>1</sup>BASF Corp., Florham Park, NJ

<sup>2</sup>Croda Inc., Edison, NJ

<sup>3</sup>Vantage Specialty Ingredients, Warren, NJ

<sup>4</sup>Brenntag Specialties, Inc., South Plainfield, NJ

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Jordapon is a registered trademark of BASF Corporation.

Lipo is a registered trademark of Vantage Specialty Ingredients.

Rev09/06/2019

**Body Wash Spray No. 500**

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

**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. Add the Part C ingredients and adjust as necessary to pH 5.5 ± 0.5.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Stepan Company, Northfield, IL

<sup>2</sup>Solvay Novacare, Bruxelles, Belgium

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

<sup>4</sup>Floritech Americas, Chandler, AZ

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Mirataine is a registered trademark of Rhodia Operations.

Tween is a registered trademark of Croda Americas LLC

Rev04/25/2013

**Mild Pearlizing Shower Wash No. 564**

	<b>Wt. %</b>
<b>A</b>   <b>VEEGUM<sup>®</sup> Pure</b> Magnesium Aluminum Silicate	1.5
Water	48.0
<b>B</b>   Alkyl Sulfonate (Hostapur <sup>®</sup> SAS 30 <sup>1</sup> )	24.0
Coco Betaine (Dehyton <sup>®</sup> AB-30 <sup>2</sup> )	18.0
PEG-7, Glyceryl Cocoate (Cetiol <sup>®</sup> HE <sup>2</sup> )	4.0
Glycol Distearate (Cutina <sup>®</sup> AGS <sup>2</sup> )	4.0
<b>C</b>   Sodium Chloride	1.2
<b>D</b>   Preservative	q.s.

**Procedure:** Slowly add the **VEEGUM<sup>®</sup> Pure** to the water while mixing at maximum available shear. Mix as the water temperature is raised to 80°C, until fully hydrated. Combine the first three ingredients in Part B and heat with light mixing to 80°C. Dissolve the last ingredient into this mixture. Maintain the Part B temperature at 80°C. Add Part B to Part A with adequate mixing, then add Part C. Mix until dissolved. Cool to 35°C while mixing and add Part D. Continue to cool with mixing and pour off at 30°C.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Clariant Corporation, Charlotte, NC

<sup>2</sup>BASF Corp., Florham Park, NJ

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Hostapur is a registered trademark of Hoechst GmbH.

Rev04/17/2017

**Pearlescent Conditioning Body Wash No. 488**

		<b>Wt.%</b>
<b>A</b>	<b>VEEGUM® Ultra</b> Magnesium Aluminum Silicate	2.00
	Water	61.25
<b>B</b>	Mica (and) Titanium Dioxide (Timiron® MP-1001 <sup>1</sup> )	0.50
<b>C</b>	Sodium Laureth Sulfate (Steol® CS-230 <sup>2</sup> )	25.00
	Lauramide DEA (Incromide™ 716 <sup>3</sup> )	7.50
	Cocoyl Sarcosine	3.75
<b>D</b>	Preservative, Fragrance	q.s.

**Procedure:** Slowly add the **VEEGUM® Ultra** to the water while mixing at maximum available shear. Mix until fully hydrated. Add Part B and mix until uniform. At reduced mixing speed, add the Part C ingredients in the order shown, mixing after each addition until uniform. Adjust as necessary to pH 5.0 ± 0.5.

**RAW MATERIAL SUPPLIERS**<sup>1</sup>EMD Chemicals, Inc./RONA, Gibbstown, NJ<sup>2</sup>Stepan Company, Northfield, IL<sup>3</sup>Croda, Inc., Edison, NJ**TRADEMARKS****VEEGUM** is a registered trademark of Vanderbilt Minerals, LLC.

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Steol is a registered trademark of Stepan Company.

Timiron is a registered trademark of EM Industries, Incorporated.

Rev04/25/2013

**Conditioning Hair & Body Shampoo No. 499**

	<b>Wt.%</b>
<b>A</b>   <b>VEEGUM® Ultra</b> or <b>VEEGUM EZ</b> Magnesium Aluminum Silicate	2.0
Water	60.0
<b>B</b>   Sodium Laureth Sulfate (Steol® CS-230 <sup>1</sup> )	25.0
Cocamidopropyl Betaine (Amphosol® CA <sup>1</sup> )	9.0
Lauramide DEA (Incromide™ 716 <sup>2</sup> )	3.0
Citric Acid, 20%	1.0
<b>C</b>   Preservative, Fragrance	q.s.

**Procedure:** Slowly add the **VEEGUM® Ultra** or **VEEGUM EZ** 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. Add the Part C ingredients and adjust as necessary to pH 5.5 ± 0.5. This formula can easily be converted to a body scrub.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Stepan Chemical Co., Northfield, IL

<sup>2</sup>Croda Inc, Edison, NJ

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Incromide is a trademark of Croda, Inc.

Rev01/25/2021

**Naturally Clean & Mild Instant Shampoo No. 658**

	<b>Wt. %</b>
<b>VANATURAL</b> <sup>®</sup> or <b>VANATURAL MC</b> Bentonite Clay	10.0
Zea Mays (Corn) Starch (Purity <sup>®</sup> 21C Pure <sup>1</sup> )	40.0
Sodium Methyl Cocoyl Taurate (Pureact <sup>™</sup> WSP <sup>2</sup> )	40.0
Sodium Lauroyl Glutamate (Amisoft <sup>®</sup> LS-11 <sup>3</sup> )	10.0

**Procedure:** Mix powders until uniformly blended.

**Directions for use:** Transfer about 3/4 teaspoon (3.75 ml) of powder into a cupped hand. To reconstitute the powder into a creamy foam, add a small amount of water while rubbing the hands together. For gentle cleansing, shampoo with the creamy foam and then rinse thoroughly with water.

**RAW MATERIAL SUPPLIERS**

<sup>1</sup>Nouryon Surface Chemistry, Amsterdam, The Netherlands

<sup>2</sup>Innospec Performance Chemicals, Salisbury, NC

<sup>3</sup>Ajinomoto Co., Inc., Tokyo, Japan

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Pureact is a trademark of Innospec Performance Chemicals Company.

Purity is a registered trademark of Corn Products Development, Inc.

Rev07/30/2019

**Natural Hair Conditioner No. 619**

	<b>Wt.%</b>
<b>A</b>	<b>VANATURAL</b> <sup>®</sup> Bentonite Clay 2.00
	<b>VANZAN</b> <sup>®</sup> NF Xanthan Gum 0.75
	Water 76.45
	Tetrasodium Glutamate Diacetate (Dissolvine <sup>®</sup> GL-47-S <sup>1</sup> ) 0.20
	Propanediol (Zemea <sup>®</sup> propandiol <sup>2</sup> ) 7.50
	Vegetable Derived Glycerin (Pricerine <sup>®</sup> 9091 <sup>3</sup> ) 5.00
<b>B</b>	Glyceryl Stearate Citrate (Dermofeel <sup>®</sup> GSC <sup>4</sup> ) 2.50
	Glyceryl Caprylate (Dermosoft <sup>®</sup> GMCY <sup>4</sup> ) 0.20
	Plumeria Acutifolia Flower Extract (Campo <sup>™</sup> South Pacific True Monoi Oil <sup>5</sup> ) 1.00
	Mixed Tocopherols (and) Soybean Oil (Decanox <sup>™</sup> MTS-50 <sup>6</sup> ) 0.40
<b>C</b>	Water (and) Hydrolyzed Corn Starch (and) Beta Vulgaris (Beet) Root Extract (DayMoist CLR <sup>™7</sup> ) 4.00
<b>D</b>	Preservative q.s.
	Triethanolamine, 99% q.s.

**Procedure:** While heating the water to 65-70°C, slowly add the **VANATURAL**<sup>®</sup> and **VANZAN**<sup>®</sup> **NF** sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Add the rest of Part A ingredients and adjust the batch temperature to 65-70°C, if necessary. Combine Part B ingredients and heat to 65-70°C. When Part A and Part B are each at 65-70°C, add Part B to Part A slowly with adequate mixing. Cool with mixing to 40°C, then add Part C. Continue to cool to 30°C with mixing and add the preservative. If necessary, adjust the pH to 5.5 ± 0.5, with triethanolamine.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Akzo Nobel Surface Chemistry LLC, Bridgewater, NJ

<sup>2</sup>DuPont Tate & Lyle Bio Products Company, LLC, Wilmington, DE

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

<sup>4</sup>Dr. Straetmans Chemische Produkte GmbH, Hamburg, Germany

<sup>5</sup>BioOrganic Concepts, Sante Fe Springs, CA

<sup>6</sup>ADM Natural Health and Nutrition Div., Decatur, IL

<sup>7</sup>Chemisches Laboratorium Dr. Kurt Richter GmbH, Berlin, Germany

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Dissolvine is a registered trademark of Akzo Nobel Chemicals B.V.

Pricerine is a registered trademark of Croda International.

Zemea is a registered trademark of DuPont Tate &amp; Lyle Bio Products Company, LLC.

Rev09/18/2014



**Deep Cleansing Bentonite Hair Treatment No. 660**

	<b>Wt. %</b>
<b>A</b>   <b>VANATURAL<sup>®</sup> MC</b> Bentonite Clay	10.00
Water	77.95
<b>B</b>   Organic Aloe Vera (Organic ACTIValoe <sup>®</sup> Aloe Vera Gel QMatrix <sup>®</sup> QM 200X Flakes <sup>1</sup> )	0.05
Propanediol (Zemea <sup>®</sup> Propanediol <sup>2</sup> )	10.00
<b>C</b>   Decyl Glucoside (Plantaren <sup>®</sup> 2000 N UP <sup>3</sup> )	2.00
<b>D</b>   Preservative	q.s.

**Procedure:** Slowly add the **VANATURAL<sup>®</sup> MC** to the water agitated at maximum available shear. Mix until fully hydrated. Complete the batch with low speed/low shear mixing. In a separate container, slurry the aloe vera flakes in the propanediol of Part B. Then, slowly add to the batch and mix in thoroughly. Add Part C followed by Part D. Mix after each until smooth while avoiding air entrapment and foaming.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Aloecorp, Lyford, TX

<sup>2</sup>DuPont Tate & Lyle Bio Products Company, LLC, Wilmington, DE

<sup>3</sup>BASF Corp., Florham Park, NJ

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ACTIValoe and QMatrix are registered trademarks of Aloecorp, Inc.

Plantaren is a registered trademark of Cognis IP Management GMBH.

Zemea is a registered trademark of DuPont Tate &amp; Lyle Bio Products Company, LLC.

Rev.06/19/20

**Rejuvenating Instant Hair Treatment No. 646**

	<b>Wt.%</b>
<b>VEEGUM® R</b> Magnesium Aluminum Silicate	20.00
Baking Soda (Sodium Bicarbonate USP Grade #1 Powder <sup>1</sup> )	20.00
Sodium Cocoyl Isethionate (Jordapon® SCI Powder <sup>2</sup> )	59.00
Aloe Barbadosensis Leaf Juice (ACTIValue® Aloe Vera Gel Qmatrix® QM 200x <sup>3</sup> )	1.00

**Procedure:** Mix powders until uniformly blended.

**Directions for Use:** Transfer about ½ teaspoon (2.5 ml) of powder into a cupped hand. Add a small amount of water to the powder while rubbing the hands together to produce a creamy foam. To remove built-up deposits from the use of other hair products, and to leave the hair naturally clean and soft, shampoo with the creamy foam and then rinse thoroughly with water.

**RAW MATERIAL SUPPLIERS**

<sup>1</sup>Natural Soda, Rifle, CO

<sup>2</sup>BASF Corp., Florham Park, NJ

<sup>3</sup>Aloecorp, Inc., Lyford, TX

**TRADEMARKS**

**VEEGUM** is a registered trademark of Vanderbilt Minerals, LLC.

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Jordapon is a registered trademark of BASF Corporation.

Rev04/23/2019

**Hair Conditioner No. 612**

		<b>Wt. %</b>
<b>A</b>	<b>VANATURAL® XGB</b> Bentonite Clay	2.00
	Water	87.15
	Tetrasodium EDTA	0.10
	Glycerin, USP	1.50
<b>B</b>	Glyceryl Stearate (and) PEG-100 Stearate (Arlacel® 165 <sup>1</sup> )	4.00
	Cetareth-20 (Eumulgin® B 2 <sup>2</sup> )	1.00
	Cetearyl Alcohol	3.00
	PEG-40/PPG-8 Methylaminopropyl/Hydroxypropyl Dimethicone Copolymer (Silsoft® A+ <sup>3</sup> )	1.00
	Butyrospermum Parkii (Shea) Butter (Shea Butter – Certified Organic <sup>4</sup> )	0.25
<b>C</b>	Preservative	q.s.

**Procedure:** While heating the water to 75-80°C, slowly add the **VANATURAL® XGB** while mixing at maximum available shear. Mix until fully hydrated. Add the remaining Part A ingredients, mixing until uniform. 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.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Croda, Edison, NJ

<sup>2</sup>BASF Corporation, Florham Park, NJ

<sup>3</sup>Momentive, Columbus, OH

<sup>4</sup>BioChemica Int'l., Inc., Melbourne, FL

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Arlacel is a registered trademark of Uniqema Americas LLC.

Eumulgin is a registered trademark of Cognis IP Management GmbH.

Silsoft is a registered trademark of General Electric Company.

Rev08/27/2012

**Washing Cream for Sensitive Skin No. 505**

		<b>Wt. %</b>
<b>A</b>	<b>VEEGUM® Ultra</b> Magnesium Aluminum Silicate	2.0
	Water	63.0
<b>B</b>	Sodium Cocoyl Isethionate (Pureact™ I-78 <sup>1</sup> )	25.0
	Cocamidopropyl Hydroxysultaine (Mirataine® CBS <sup>2</sup> )	10.0
<b>C</b>	Preservative	q.s.

**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.

**RAW MATERIAL SUPPLIERS**<sup>1</sup>Innospec Active Chemicals, Edison, NJ<sup>2</sup>Solvay Novecare, Bruxelles, Belgium**TRADEMARKS****VEEGUM** is a registered trademark of Vanderbilt Minerals, LLC.

Mirataine is a registered trademark of Rhodia Operations.

Pureact is a trademark of Innospec Performance Chemicals Company.

Rev01/31/2013

**Washing Gel with Tea Tree Oil No. 556**

		<b>Wt.%</b>
<b>A</b>	VANZAN® NF-C Xanthan Gum	1.00
	Water	72.35
	Disodium EDTA	0.05
<b>B</b>	Cocamidopropyl Betaine (Amphosol® CA <sup>1</sup> )	10.00
	Decyl Glucoside (Plantaren® 2000 N <sup>2</sup> )	6.60
	Water (and) Melaleuca Oil (and) Ethoxylated Castor Oil (and) Polysorbate 20	10.00
	(Water-Soluble Tea Tree Oil <sup>3</sup> )	
<b>C</b>	Preservative	q.s.

**Procedure:** Slowly add the **VANZAN® NF-C** to the water agitated at maximum available shear. Mix until fully dissolved. Add the disodium EDTA and mix until dissolved. Add the Part B ingredients in the order listed, mixing after each addition until uniform. Add Part C and mix until uniform. Adjust as necessary to pH 6.5 ± 0.5.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Stepan Company, Northfield, IL

<sup>2</sup>BASF Corporation, Florham Park, NJ

<sup>3</sup>Southern Cross Botanicals PTY Ltd, Lennox Head, NSW, Australia

**TRADEMARKS**
**VANZAN** is a registered trademark of Vanderbilt Minerals, LLC.

Amphosol is a registered trademark of Stepan Company.

Plantaren is a registered trademark of Cognis IP Management GMBH.

Rev07/01/2013

**Natural Exfoliant Scrub No. 576**

	<b>Wt.%</b>
<b>A</b>   <b>VANATURAL</b> <sup>®</sup> Bentonite Clay	3.00
<b>VANZAN</b> <sup>®</sup> NF Xanthan Gum	0.75
Water	75.75
<b>B</b>   Decyl Glucoside (Plantaren <sup>®</sup> 2000N <sup>1</sup> )	7.00
<b>C</b>   Cocamidopropyl Betaine (Amphosol <sup>®</sup> CA <sup>2</sup> )	3.00
Propylene Glycol (and) Water (and) <i>Mentha</i> Piperita (Peppermint) Leaf	2.00
Extract (and) <i>Mentha</i> Piperita (Peppermint) Oil (Aromaphyte of Peppermint <sup>3</sup> )	1.50
Water (and) Melaleuca Oil (and) Ethoxylated Castor Oil (and) Polysorbate 20	1.50
(Water-Soluble Tea Tree Oil <sup>4</sup> )	
<b>D</b>   Zea Mays (Corn) Cob Powder (Processed Corn Cob (60/100)) <sup>5</sup>	5.00
<b>E</b>   Cocamide DEA (Ninol <sup>®</sup> 40-CO <sup>2</sup> )	2.00
<b>F</b>   Preservative	q.s.

**Procedure:** Slowly add the **VANATURAL**<sup>®</sup> and **VANZAN**<sup>®</sup> NF sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Slowly add Parts B, C, D, E and F in order, mixing after each until smooth while avoiding air entrapment and foaming.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>BASF Corp., Florham Park, NJ

<sup>2</sup>Stepan Company, Northfield, IL

<sup>3</sup>Active Organics Inc., Lewisville, TX

<sup>4</sup>Southern Cross Botanicals PTY Ltd, Lennox Head, NSW, Australia

<sup>5</sup>Mt. Pulaski Products, Inc., Mt. Pulaski, IL

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Amphosol and Ninol are registered trademarks of Stepan Company.

Plantaren is a registered trademark of Cognis IP Management GMBH.

Rev07/01/2013

**Zinc Pyrithione Lotion Shampoo No. 364**

	<b>Wt.%</b>
<b>A</b>   VEEGUM® R Magnesium Aluminum Silicate	0.5
Water	51.1
Hydroxypropyl Guar (Jaguar HP-60 <sup>1</sup> )	0.5
<b>B</b>   Ammonium Lauryl Sulfate (Rhodapon™ L-22 <sup>1</sup> )	40.0
PPG-5-Ceteth-10 Phosphate (Crodafos™ SG <sup>2</sup> )	1.8
Lauramide DEA (Monamid® 716 <sup>2</sup> )	4.0
<b>C</b>   Zinc Pyrithione, 48% (Zinc Omadine® <sup>3</sup> )	2.1
Preservative	q.s.

**Procedure:** Slowly add the VEEGUM® R to the water agitated at maximum available shear. Mix until fully hydrated. Add the hydroxypropyl guar and mix until uniformly dispersed. With slow stirring add the Part B ingredients in order. Add the phosphate slowly, mixing until the guar gum is totally dissolved. Add the Part C ingredients in order listed, agitating slowly. Mix until smooth and uniform. Avoid incorporation of air. Adjust as necessary to pH 7.2.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Solvay Novecare, Bruxelles, Belgium

<sup>2</sup>Croda Inc., Edison, NJ

<sup>3</sup>Arch Personal Care Products L.P.,  
South Plainfield, NJ

**TRADEMARKS**

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Omadine is a registered trademark of Arch Chemicals, Inc.

Rhodapon is a registered trademark of Rhodia Chimie Corporation.

Rev07/01/2013

**Aerosol Shave Cream for Sensitive Skin No. 503**

	<b>Wt. %</b>
<b>A</b>	<b>VEEGUM® Ultra</b> Magnesium Aluminum Silicate 1.5
	<b>VANZAN® NF</b> Xanthan Gum 0.3
	Water 67.2
<b>B</b>	Glycerin 3.0
	Butylene Glycol 3.0
<b>C</b>	Stearic Acid XXX 3.0
	Coconut Acid 3.0
	Safflower Oil 0.2
	Soybean Oil 0.2
	Cetyl Alcohol 1.0
	Dimethicone (XIAMETER® PMX-200 Silicone Fluid 350cs <sup>1</sup> ) 1.0
	Lanolin Alcohol 0.1
	Isosorbide Laurate 1.0
Mineral Oil 3.0	
<b>D</b>	Sodium Cocoyl Sarcosinate, 30% 10.0
	Panthenol 0.5
	Aloe Vera 0.5
<b>E</b>	Triethanolamine 1.5
	Preservative, Fragrance q.s.

**Procedure:** While heating the water to 75°C, slowly add the **VEEGUM® Ultra** and **VANZAN® NF** sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Add the remaining water phase ingredients from Part B, mixing until uniform. Maintain the water phase at 75°C. Blend the Part C oil phase ingredients and heat to 75°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool while mixing. Add the Part D ingredients when the emulsion is <40°C. Add the Part E ingredients when the emulsion is <35°C. Adjust as necessary to pH 7.5 ± 0.5.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Dow Corning Corporation, Midland, MI

**TRADEMARKS**
**VEEGUM** and **VANZAN** are registered trademarks of Vanderbilt Minerals, LLC. Xiameter is a registered trademark of Dow Corning Corporation.

Rev04/25/2013



**Shaving Cream No. 501**

	<b>Wt. %</b>
<b>A</b>	<b>VEEGUM® Ultra</b> Magnesium Aluminum Silicate 2.0
	<b>VANZAN® NF</b> Xanthan Gum 0.5
	Water 74.5
<b>B</b>	Cetyl Alcohol 0.5
	Glyceryl Monostearate SE 3.0
	Caprylic/Capric Triglyceride (Neobee® M-5 <sup>1</sup> ) 2.0
	C12-15 Alkyl Benzoate (Finsolv® TN <sup>2</sup> ) 3.0
	Dimethicone (XIAMETER® PMX-200 Silicone Fluid 350cs <sup>3</sup> ) 3.0
	Lanolin Alcohol 1.0
Isosorbide Laurate 0.5	
Mineral Oil 5.0	
<b>C</b>	Sodium Lauroyl Sarcosinate, 30% 5.0
<b>D</b>	Triethanolamine or Citric Acid (to pH 5.75 ± 0.25) q.s.
	Preservative, Fragrance q.s.

**Procedure:** While heating the water to 75°C, slowly add the **VEEGUM® Ultra** 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 75°C. Blend the Part B oil phase ingredients and heat to 75°C. Add the oil phase to the water phase with good agitation; mix until uniform. Cool while mixing. Add the Part C surfactant when the emulsion is <55°C. Add the Part D ingredients when the emulsion is <35°C. Adjust as necessary to pH 5.75 ± 0.25.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Stepan Company, Northfield, IL

<sup>2</sup>Innospec Active Chemicals, Edison, NJ

<sup>3</sup>Dow Corning Corporation, Midland, MI

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Rev07/01/2013

**After Shaving Balm with Hyaluronic Acid No. 558**

	<b>Wt. %</b>
<b>A</b>	<b>VEEGUM® R</b> Magnesium Aluminum Silicate 1.0
	<b>VANZAN® NF</b> Xanthan Gum 0.5
	Water 93.1
<b>B</b>	Water (and) Triticum Vulgare (Wheat) Germ Extract (and) Saccharomyces 4.0
	Cerevisiae Extract (and) Sodium Hyaluronate (Eashave™ <sup>1</sup> )
	Bisabolol ((±)-alpha-Bisabolol Synthetic <sup>2</sup> ) 0.2
	Aloe Barbadosensis Leaf Juice (Aloe Vera Gel Regular 40X-AG046 <sup>3</sup> ) 1.0
	Allantoin 0.2
<b>C</b>	Preservative q.s.

**Procedure:** Slowly add the **VEEGUM® R** and **VANZAN® NF** sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Add the Part B ingredients in the order listed and mix until uniform. Add Part C and mix until uniform. Adjust as necessary to pH 6.5 ± 0.5.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Pentapharm Ltd., Basel, Switzerland/  
Centerchem, Inc., Norwalk, CT

<sup>2</sup>BASF Corporation, Florham Park, NJ

<sup>3</sup>Terry Laboratories, Inc., Melbourne, FL

**TRADEMARKS**
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Eashave is a trademark of Pentapharm Ltd.

Rev11/29/2018

**Cranberry Seed & Shea Butter Exfoliating Body Polish No. 647**

	<b>Wt.%</b>
<b>A</b>	<b>VEEGUM® Ultra</b> or <b>VEEGUM EZ</b> Magnesium Aluminum Silicate 2.00
	<b>VANZAN® NF</b> Xanthan Gum 0.50
	Water 69.90
	Tetrasodium EDTA 0.10
	Glycerin, USP 10.00
<b>B</b>	Sodium Cocoyl Isethionate (Pureact™ I-78 Flakes <sup>1</sup> ) 12.50
<b>C</b>	Butyrospermum Parkii (Shea) Butter (Tomasia™ Shea Butter <sup>2</sup> ) 2.00
<b>D</b>	Preservative q.s.
	Hydrogenated Castor Oil (Naturescrub® H20 <sup>3</sup> ) 2.50
	Vaccinium Macrocarpon (Cranberry) Seed (ESP Cranberry Seed 30+ <sup>4</sup> ) 0.50

**Procedure:** While heating the water to 55-60°C, slowly add the **VEEGUM® Ultra** or **VEEGUM EZ** and **VANZAN® NF** sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Add the rest of the Part A ingredients and mix after each until completely incorporated. Maintain the water phase at 55-60°C. Decrease the mixing speed to a smooth mechanical agitation, slowly blend in Part B and mix until completely dispersed. Re-adjust temperature back to 55-60°C. Heat Part C to 45-50°C until melted and add while adjusting the mixing speed as necessary. Under slow speed/low shear mixing cool to ~30°C. Slowly incorporate the Part D ingredients and mix after each until uniform. Adjust as necessary to pH 6.5 ± 0.5.

**RAW MATERIAL SUPPLIERS**
<sup>1</sup>Innospec Active Chemicals, Edison, NJ

<sup>2</sup>Tri-K Industries, Inc., Denville, NJ

<sup>3</sup>Micro Powders, Inc., Tarrytown, NY

<sup>4</sup>Earth Supplied Products, Naples, FL

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Naturescrub is a registered trademark of Micro Powders, Inc.

Pureact is a trademark of Innospec Performance Chemicals Company.

Tomasia is a trademark of Tri-K Industries, Inc.

Rev01/25/21

**All-in-One Shampoo & Body Wash Bar No. 652**

		<b>Wt. %</b>
<b>A</b>	Sodium Lauryl Sulfoacetate (Lathanol™ LAL Powder <sup>1</sup> )	41.00
	Cocamide MEA (NINOL® COMF-N <sup>1</sup> )	20.50
	Stearyl Alcohol (Crodacol™ S-95 NF Pastilles <sup>2</sup> )	20.50
	Crambe Abyssinica Seed Oil (Fancor® Abyssinian Oil <sup>3</sup> )	12.30
<b>B</b>	Phenoxyethanol, Ethylhexylglycerin (Euxyl® PE 9010 <sup>4</sup> )	1.00
	<b>VANATURAL® MC</b> Bentonite Clay	4.70

**Procedure:** Combine Part A ingredients. With mixing, heat until fully melted (~60°C). Add and mix in Part B ingredients one at a time while increasing the batch temperature to ~70°C. While hot, quickly pour off into molds and allow to cool. When at room temperature, remove the bars from the molds.

**RAW MATERIAL SUPPLIERS**<sup>1</sup>Stepan Company, Northfield, IL<sup>2</sup>Croda, Inc., Edison, NJ<sup>3</sup>Elementis Specialties, Hightstown, NJ<sup>4</sup>Ashland Specialty Ingredients, Wilmington, DE**TRADEMARKS****VANATURAL** is a registered trademark of Vanderbilt Minerals, LLC.

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Ninol is a registered trademark of Stepan Company.

Rev07/01/19









# Vanderbilt Minerals, LLC

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