

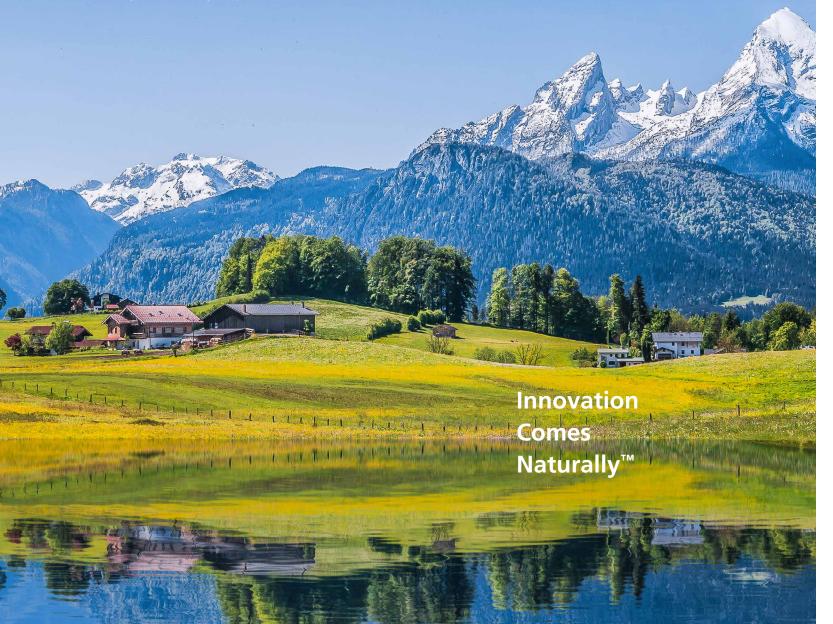


Global Innovation Leader

Omya Kinetik is a dynamic and customer-focused distributor of high-quality specialty ingredients from around the globe, serving the personal care and cosmetic markets. As a leader in Consumer Goods, Omya Kinetik offers cutting-edge innovative products, formulation support, and unmatched customer service. Our footprint extends nationwide, with centers of excellence in Long Beach, CA, Cincinnati, OH and Hazlet, NJ. With decades of technical industry experience and specialty ingredient knowledge, we offer a wide variety of consultative support in the specialty cosmetic market.

Omya, our parent company, is a leading global producer of minerals – mainly derived from calcium carbonate, dolomite and perlite – and a worldwide distributor of specialty ingredients. The company provides a wealth of innovative product solutions that contribute to its customers' competitiveness and productivity in multiple industries. Founded in 1884 in Switzerland, Omya has a global presence extending to more than 160 locations in over 50 countries with 9,000 employees.

Let Omya Kinetik be your partner in oral care.



Oral Care Innovation Driven By Consumer Values

Now, more than ever, consumers are concerned about the ingredients in the products they use, and how their habits are impacting the earth. They value brand authenticity, transparency, and sustainable practices, and over 70% are willing to pay a premium price for products from a brand that aligns with their values and their vision for the future.¹

Let's face it... oral hygiene products used to be mundane. We took care of our teeth to avoid a painful trip to the dentist. People now expect more from their toothpaste. Consumers seek toothpaste products that address their individual oral care needs, while also being effective, safe, and easy to use. In fact, 63% of adults in the US consider oral care to be part of their self-care routine, and the importance of self-care is greater than it ever has been before.^{2, 3} They want to buy products from a brand with similar values, and contains ingredients they feel are safe and effective.

Omya is driving innovation in the oral wellness arena and partnering with the most cutting edge suppliers. Whether it's a COSMOS toothpaste with natural hydroxyapatite, or a waterless tooth tab with bamboo charcoal, we have the ingredients you need and the technical expertise to help bring your ideas to life.

Basics of Toothpaste Formulation

Essential Components

Abrasive: removes surface particles and polishes tooth surface.	Page 11
Humectant: prevents paste from hardening by drying out.	Page 13
Color: for an attractive appearance.	Page 14
Foaming agent: helps to disperse toothpaste throughout mouth while helping	Page 15
to penetrate and dissolve plaque.	
Binder: prevents the separation of powders and liquid ingredients; and creates	Page 16
the desired texture.	
Preservative: prevents microbial growth.	Page 17
Flavor: masks other ingredients in formulation while leaving a clean feeling in the mouth.	_
Sweetener: for improved flavor.	_



Making Toothpaste

Fundamental process for making toothpaste in the lab. Modify as needed to incorporate any specialty or exotic ingredients.

Benchtop Overhead Mixer

Step 1 Water Phase

Add water soluble ingredients (dyes, salts, sweeteners, etc.) to water and mix until dissolved. Begin heating if necessary.



Step 2 Gel Phase

Disperse your binder in a nonaqueous humectant, like glycerin or propanediol, and mix until homogeneous. Slowly add this dispersion to your water phase, increasing agitation as needed.

Pro tip: "Fish Eyes" can't be fixed. Scrap and start over.



Planetary Mixer with Vacuum



Step 3 Powder Phase

Add abrasives and other solids like charcoal or pigments to the gel phase and mix slowly until wetted. Add vacuum, increase agitation, and mix until smooth and homogeneous.

Pro tip: Too much foam? Add a little flavor as a defoamer!



Step 4 Finish Phase

Add flavor and surfactant. Start mixing slowly while materials are incorporating. Add vacuum and increase agitation to fully incorporate.

Pro tip: Flavors are volatile! Cool to below 40°C before adding.



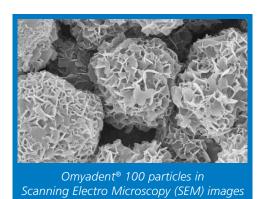
Omyadent® 100 Hydroxyapatite (and) Calcium Carbonate



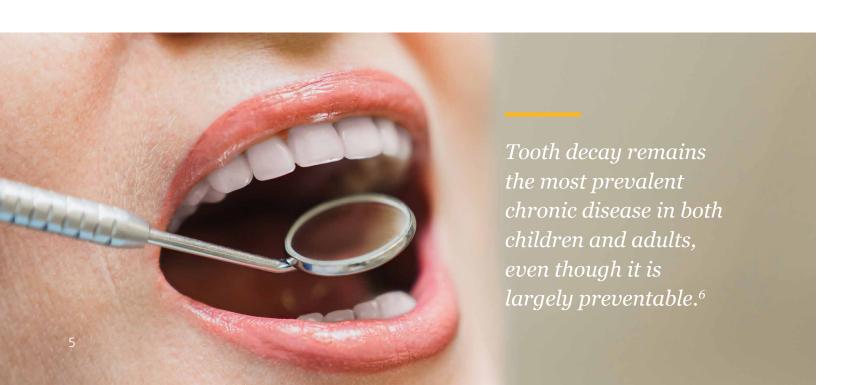


#Natural #FluorideAlternative #CrueltyFree #Remineralization

Fluoride has been part of most oral care routines for decades, but modern oral care brands are bringing attention to a science-backed alternative: hydroxyapatite. The use of hydroxyapatite to combat tooth decay was originally conceived by NASA in the 1970s. It is the main component of enamel, making up 90% of its foundation. As the outermost layer of the teeth, enamel protects teeth from bacteria and decay, which when exposed can lead to cavities, infections, gum disease and even tooth loss. Hydroxyapatite is a nontoxic and biocompatible remineralizing agent, making it a viable option for those seeking natural oral care solutions.



Omyadent® 100 is a modern solution for fluoride-free remineralizing toothpastes, based on Omya's proprietary⁵ functionalized calcium carbonate technology. Limestone deposits in Provence, France are mined and ground into a fine calcium carbonate powder. These particles are reacted with natural phosphoric acid, producing a new mineral structure that consists of calcium carbonate cores surrounded by an elaborate scaffold of lamellar hydroxyapatite. This 100% natural origin and cruelty-free technology is offered by Omya as an alternative to synthetic nano-hydroxyapatite or other animal derived sources.



A dynamic pH cycling model was used to demonstrate the remineralization potential of Omyadent® 100 in vitro. Tooth enamel specimen were subjected to daily cycles including treatment, remineralization and demineralization. The percent surface microhardess recovery (%SMHR) was calculated using microhardness measurements taken at baseline and after 6 days of cycling. Specimen treated with a toothpaste slurry containing 5% Omyadent 100 had superior %SMHR compared to those treated with toothpaste slurries containing nano-hydroxyapatite or micronized hydroxyapatite.

Omyadent® 100-OG Micro-HAP Nano-HAP

Remineralization of Omyadent® 100

Evicare® magnolia Magnolia Officinalis Bark Extract





#Natural #Antibacterial

The magnolia tree has been valued for centuries by many Asian cultures for its medicinal benefits. The two main components of magnolia bark extract, Magnolol and Honokiol, have been extensively studied for their applications in oral care. These naturally occurring compounds have been found to be very effective against several species of oral bacteria, including Streptococcus mutans, which is closely associated with the formation of dental cavities. This mode of action complements enamel remineralization using fluoride or hydroxyapatite.

Evicare® magnolia from Evident Ingredients is a natural extract produced from the bark of the tree and contains at least 98% active matter.

Omyadent® 200

Calcium Carbonate (and) Hydroxyapatite

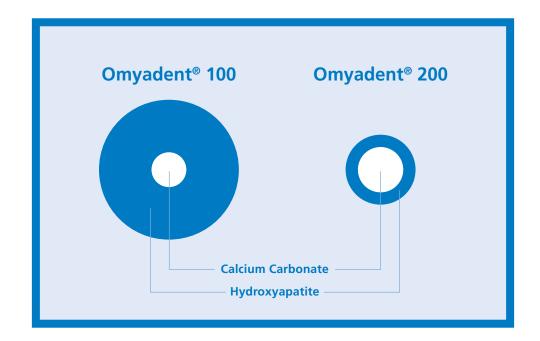


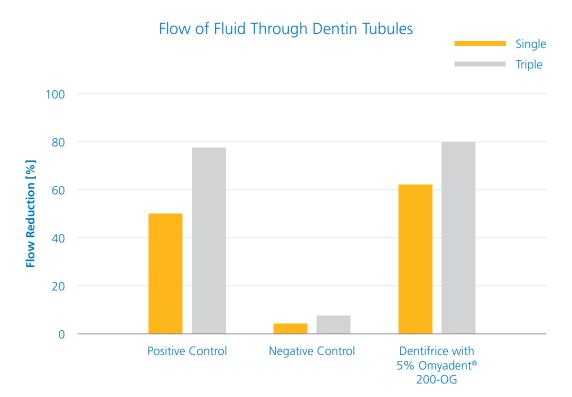


#Hypersensitivity #Non-Nano #EnjoyEatingAgain

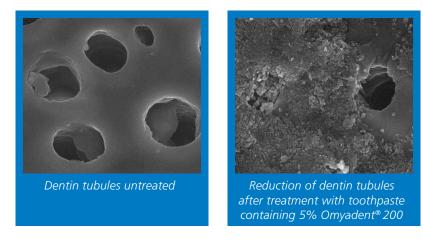
As both usage and clinical investigation of hydroxyapatite grew through the 1990s and 2000s, it was found that hydroxyapatite is an effective dentin desensitizer. Hypersensitivity occurs when the tooth dentin becomes exposed to the elements such as hot, cold, or pressure. This can be due to loss of tooth enamel or gum recession. Hydroxyapatite can block the open dentin tubules, reducing or even eliminating the painful bouts of sensitivity that people experience when trying to enjoy hot coffee or cold ice cream.

Omyadent® 200 is Omya's solution for addressing hypersensitivity. The basis for this technology is similar to Omyadent® 100, but the particles are much smaller and better suited to block the open dentin tubules.





Omyadent® 200 has been validated in laboratory studies using a model that directly measures the flow of fluid through dentin tubules. Disks of open dentin tubules are created by cutting and polishing extracted human molars, and then briefly treating them with acid to remove any debris in the open tubules. These disks are then hooked up to a device that measures the flow of liquid through them, before and after treatment with the test products. This method has been well correlated to human clinical studies.



Showing dentin tubules before and after the treatment with Omyadent® 200.



Green Tea Extract (EGCG) 90 Epigallocatechin Gallate



#Antioxidant #Antibacterial

Green tea is perhaps one of the most prized functional foods. This antioxidant-loaded elixir is believed to have a variety of health benefits from improving brain function to decreasing the possibility of heart disease. Epigallocatechen-3-gallate, more often simply referred to as EGCG, is the polyphenol that is credited with most of the benefits associated with green tea. The anti-inflammatory, antioxidant, and antibacterial activity of EGCG make it a great addition to oral care products, especially those that target healthy gums.

GfN Selco's Green Tea Extract (EGCG) 90 is a physically purified natural green tea leaf extract with an EGCG content higher than 90%. It acts as an antioxidant and reduces inflammation.

Alpha-Bisabolol natural (C) Bisabolol



#Natural #Antimicrobial #Anti-inflammatory

 α -bisabolol is best known for being the primary constituent of chamomile oil. It has a long history of use in cosmetic products due to its analgesic, anti-inflammatory, and antimicrobial properties. These wound-healing and anti-biofilm properties have made this botanical ingredient a natural alternative to synthetic antibacterial agents such as chlorhexidine or cetylpyridinium chloride.

GfN Selco obtains this natural α -bisabolol from the wood of the South American candeia tree. This variety is particularly high in bisabolol. Unlike synthetic sources, this natural extract is comprised of over 95% α -bisabolol and completely free of Farnasol.

Turmeric Oil (CO2) Curcuma Longa Root Extract



#Antioxidant #Antibacterial #Anti-inflammatory

Turmeric is native to Southeast Asia and has been used in Ayurvedic medicine for centuries. Today, turmeric oil is widely used in personal care products for its established anti-inflammatory, antibacterial, and antioxidant properties. In oral care, turmeric is most often used in products specially formulated for gum health or for people suffering from gingivitis, for its ability to soothe and protect this vulnerable soft tissue.

GfN Selco obtains this turmeric oil through a solvent-free supercritical CO2 extraction process using natural pure carbon dioxide and organically harvested curcuma longa roots. The resulting oil contains over 60% turmerones, including ar-turmerone, α -turmerone and β -turmerone.

GLB Hemp Seed Extract Cannabis Sativa Seed Oil



#Sustainable #Anti-inflammatory #Antioxidant #Hydration

Hemp is an extremely versatile and sustainable crop with a long history of cultivation for its plant fibers and seed oil. The oil extracted from the cannabis sativa seed is especially rich in fatty acids. It also contains a variety of carotenoids and tocopherols which exhibit anti-inflammatory and antioxidant activity. Green Line's GLB Hemp Seed Extract can be used in oral care products to soothe and improve hydration of the gums.

64% of consumers are interested in oral care anti-inflammatory ingredients.⁴





Omyacare® Natural Calcium Carbonates Calcium Carbonate



#Natural #Renewable #StainRemoval

Abrasives are a fundamental component of oral hygiene regimens. Whether you brush your teeth with a traditional toothpaste or a more progressive water-free tooth tablet, the abrasive does much of the work. Abrasives are more than just particles that aid in the cleaning of your teeth. The abrasive you choose influences many properties of the product.

There are many abrasive options to choose from, with two main indicators used to characterize abrasive powders and finished products: abrasion and cleaning. Abrasion is measured in the laboratory using a test called RDA (Radioactive or Relative Dentin Abrasion), which measures how much dentin is removed by the test product using a standardized brushing procedure. RDA is a way to determine if your product is safe. Any value below 250 is recognized as safe for daily use by the American Dental Association. A common misconception is that higher abrasion products provide better cleaning. Although this is often true, RDA is a safety test and doesn't provide any information about cleaning. Cleaning is measured in the laboratory using a test called PCR (Pellicle Cleaning Ratio). PCR uses stained enamel, with is much harder than dentin, and measures the change in color after a standardized brushing procedure. Products with a higher PCR value remove more stain from the enamel surface.



Figure 1: Omyacare® PCR & RDA data generated at ADA approved external laboratory. Reference silica data from published source material.

Omyacare® Natural Calcium Carbonates (NCC) are a highly flexible solution to meet your oral care abrasion needs. Omyacare® NCCs undergo less processing and have a lower carbon footprint than precipitated calcium carbonate or silica. All Omyacare® NCCs are of the highest quality and exceed international standards for use in food and nutritional products. Omya uses multiple source materials and grinding processes to create a complete line of Omyacare® abrasive powders with different properties. If one of these grades doesn't meet your needs, ask about other options from our global Omyacare® portfolio.

Bamboo Charcoal Powder Charcoal Powder





#Natural #Sustainable #Purify

Activated charcoal is a very popular ingredient in oral care, but it is also highly scrutinized. This ingredient has a long history of use in many applications due to its natural property to adsorb toxins, impurities, and other harmful substances.

GfN Selco Bamboo Charcoal Powder is sustainably sourced from Maso bamboo timber. After harvest, the bamboo is charred in an oven at temperatures above 1000°C, then ground, sieved, and packed. This ultrafine powder has an average particle size less than 4 microns and a specific surface area of 200-400 m²/g. Using Bamboo Charcoal Powder in addition to a regular abrasive will absorb stains and odors, helping to both clean and purify the mouth while brushing.

Enyzmes - Bromelain & Papain Bromelain | Papain





#Natural #Sustainable

Bromelain is a hydrolytic protease extracted from pineapple stems. Papain is a cysteine protease extracted from the peels and seeds of papaya fruit. These natural enzymes help break down proteins in plaque biofilms, making them easier to remove from the teeth.

GfN Selco Bromelain and Papain can be used individually or in combination with each other. They are ideal for water-conscious forms such as tooth tablets and powders.



Humectants are best known as moisture-holding ingredients. They are primarily used in toothpaste to prevent drying out. Humectants give toothpaste a nice sheen and improve the mouthfeel of oral care products. In certain situations, humectants can double as a co-solvent or processing aid to help incorporate difficult ingredients into the formulation.

GLE Organic Glycerin – Palm Free Glycerin





#Moisturization #Humectant

Produced from Karanja seeds sourced from India, the production of this material does not compromise necessary food supplies as it is a non-edible ingredient. GLE Organic Glycerin from Green Line is highly soluble in polar solvents, well known for its moisturizing, humectant and emollient properties.

Zemea® Propanediol Propanediol



#NaturalSolvent #ActivesBooster #PropyleneGlycolAlternative

Naturally derived, petroleum-free humectant and solvent, Covation Bio's Zemea® Propanediol is ideally suited for oral care formulations. It acts as a solvent for sweeteners and carrier for gums; provides formulation clarity and improves taste. It also enables successful formulation of alcohol-free mouthwashes and SLS-free toothpastes along with preservative boosting benefits.



Adding aesthetics to an oral care formulation adds an element of fun to a normally tedious task. This is especially important when teaching children to adopt good hygiene practices. The right aesthetic helps a product stand out on shelves and in users' reviews.

Cosmospheres® Various

#Natural #Sustainable #SensoryEnhancer

Omya's Cosmopheres® are optically attractive delivery beads, sourced from natural and sustainable ingredients. This eye catching technology can be used in aqueous based formulations. Cosmospheres® can be loaded with a wide variety of liquid or powdered ingredients to create stable, high performance products with a unique sensorial experience. Vegan and COSMOS options available.

Natural Gardenia Powder Extracts Hydrolyzed Gardenia Florida Extract, Maltodextrin Gardenia Jasminoides Fruit Extract, Maltodextrin





#NaturalColor

Omya's water soluble powders are extracted from gardenia blossoms. Available in red, blue and yellow, these extracts add vibrant color to water based formulations and exhibit excellent stability over a wide pH range at very low usage levels.





There is a common misconception in the natural oral care marketplace that surfactants are only used to generate foam, and that foam is unnecessary. In fact, surfactants are an important part of any oral care composition. Surfactants help to incorporate flavorings and other oils into formulations, and foam helps to disperse the active ingredients around the mouth. This leads to an overall fresher and cleaner feeling mouth.

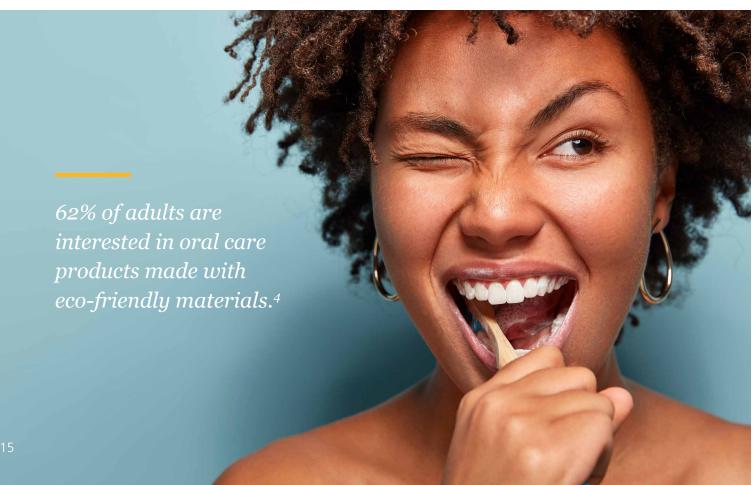
BergaSoft LG 50 MB & BergaSoft DG 50 MB Lauryl Glucoside | Decyl Glucoside





#Sustainable #Natural #FoamingAgent #WettingAgent

Berg + Schmidt's BergaSoft LG & DG are mild, non-ionic, readily biodegradable surfactants. Derived from renewable sources, these natural cleansers produce moderate to high stable foam with low defatting and good wetting properties.





Gums and thickeners provide structure, which helps to maintain composition uniformity and ensure the active ingredients are homogeneous throughout. This is critically important for toothpaste, which contains a high amount of suspended solids.

Clearthix® S Cellulose Gum, Algin





#Thickener #Moisturization

A versatile, cost effective, transparent water thickener based on Cellulose Gum and Alginate; Alchemy's Clearthix® S creates smooth flowable textures with moisturizing properties. It can be used at room temperature as a viscosity modifier.

Evicare® aquatex series Xanthan Gum





#Vegan #Thickener

Evident Ingredients delivers natural and vegan thickening agents that produce clear colorless systems and hydrate quickly either with or without pre-dispersing. Demonstrate high yield viscosity thixotropic behavior, with good alcohol and electrolyte tolerance. Deliver low stringiness and soft feel to formulations.

Cekol® Sodium Carboxymethyl Cellulose Cellulose Gum





#RheologyModifier

Nouryon's Cekol® CMC is a water-soluble polymer derived from wood or cotton cellulose and produced to a minimum of 99.5% purity. It is a bio-based and biodegradable hydrocolloid that hydrates and dissolves readily in hot or cold water. By choosing the right type of Cekol® CMC, formulators can achieve the desired rheology for any aqueous system, including suspensions and emulsions. In addition to controlling the rheology, Cekol® CMC is known for its excellent water retaining and film forming capacity. Cekol 2000A is recommended as a binder for toothpaste formulations due to its viscosity build and broad compatibility with common abrasives.



Preservation is one of the most important aspects of oral care formulations. Preservatives prevent the growth of microorganisms, ensuring their safety, stability, and efficacy. Our innovation partners offer a variety of natural preservatives and boosters that are suitable for use in oral care formulations.

GreenGard[™] BA bio Benzoic Acid





#Natural #Antimicrobial

Green Line's 100% natural benzoic acid is derived from cinnamon with reliable antimicrobial activity. Effective at low use levels, can be combined easily with other organic acids, and is especially suited for highly aqueous systems like mouthwash.

Natural Benzyl Alcohol Benzyl Alcohol





#Natural #Antibacterial #Antifungal

Green Line's plant derived natural benzyl alcohol is a potent non-traditional preservative. Effective against both bacteria and fungi across a broad pH range, including the neutral-to-alkaline range of most toothpastes.

Evicide® G 8 Caprylyl Glycol



#ModernPreservation

With the strongest antimicrobial activity in the family of glycols, Evident's widely used multifunctional ingredient is a great preservation boosting agent.

Water Conservation on the Rise in Oral Care

Consumers are becoming more environmentally aware and are looking to limit their negative impact and it is expected that the respectful and resourceful use of water will become a priority for both companies and consumers.⁴

Omya offers a variety of natural ingredients well-suited for use in waterless oral care formulations such as tooth powders, toothtabs, and solid toothpastes. Omya's line of Omyacare® natural calcium carbonates are manufactured with a very low carbon footprint and are tailored to your desired cleaning and abrasion needs.



Omya demonstrates our commitment to this rising concern by developing inspiring, water-conscious formulations, including Bright Bites Toothpaste Tablets.

Visit our blog for more examples of inspiring water-conscious oral care formulations.

https://omyakinetik.com/blog/water-conscious-oral-care-solutions/

References

- 1. Meet the 2020 consumers driving change. IBM Institute for Business Value
- 2. A year of Innovation in Oral Care, 2022. Mintel
- **3.** Global Consumer Trends: New Lives in a New World. Dynata
- 4. Oral Health US 2022 The Oral Health Consumer. Mintel
- 5. EP2926797B1 Surface-reacted calcium carbonate for remineralization and whitening of teeth
- **6.** National Institute of Dental and Craniofacial Research (https://www.nidcr.nih.gov/research/data-statistics/dental-caries)
- **7.** Unicef (https://www.unicef.org/wash/water-scarcity)

Fortify Natural Toothpaste Fluoride-Free

01145-88

Fluoride-free, silica-free and SLS-free natural toothpaste that works to repair microscopic defects while smoothing and whitening the tooth surface.

	Ingredients	INCI Nomenclature	Suppliers	% w / w
A	DI-Water GENENCARE® OSMS-BA	Water (Aqua) Betaine	 IFF Health &	qs 1.00
			Biosciences	
	Natural Gardenia Blue Powder Extract A-80-A	Hydrolyzed Gardenia Florida Extract, Maltodextrin	Omya	0.015
	Sorbitol (70%)	Sorbitol, Water		27.00
	Evicare® magnolia	Magnolia Officinalis Bark Extract	Evident Ingredients	0.20
	Erylite® Stevia 400	Erythritol, Stevia Rebaudiana Extract	Jungbunzlauer	0.20
В	Omyadent® 100-OG	Hydroxyapatite, Calcium Carbonate	Omya	5.00
	Omyacare® S95-OG	Calcium Carbonate	Omya	15.00
C	Zemea® Propanediol	Propanediol	CovationBio PDO LLC	10.00
	GLE Organic Glycerin	Glycerin	Green Line, LLC	5.00
	Clearthix® S	Cellulose Gum, Algin	Alchemy Ingredients	1.20
	Evicare® aquatex 80	Xanthan Gum	Evident Ingredients	0.20
D	Peppermint Flavor	Mentha Piperita (Peppermint) Oil		1.75

100.00

Procedure

- **1.** Add Water and heat to 60°C. Add the rest of Phase A one ingredient at a time, ensuring each is fully mixed before adding the next. Mix well.
- 2. While maintaining temperature at 60°C, add Phase B ingredients one at a time and homogenize until batch is smooth and uniform.
- 3. Pre-mix Phase C and slowly add to Phase A/B. Homogenize until batch is smooth and homogeneous.
- 4. Cool to 40°C and add Phase D.

How To Use

Apply a pea sized amount to toothbrush and brush all surfaces of teeth for at least 2 minutes.

Bright Bites Toothpaste Tablets

Formulated with Omyacare®, Omyadent®, and Bamboo Charcoal, these ultra-fast disintegrating tablets provide remineralization and stain removal in a waterless format.

	Ingredients	INCI Nomenclature	Suppliers	% w / w
A	Omyacare® S85-OG	Calcium Carbonate	Omya	10.00
	Omyadent® 100-OG	Hydroxyapatite, Calcium Carbonate	Omya	5.00
	Plantapon® ACG 50	Disodium Cocoyl Glutamate	BASF	3.00
В	Omyanutra® 300 Flash	Calcium Carbonate, Hydroxyapatite,	Omya	30.00
		Sodium Croscarmellose		
	Pearlitol	Mannitol	Roquette	26.68
	Peppermint Oil	Mentha Piperita (Peppermint) Oil		2.00
	Phoskadent SF	Sodium Fluoride	BK Giulini	0.32
	Evicare® GB	Glyceryl Behenate	Evident Ingredients	15.00
	Vivapur CS 130 FM	Microcrystalline Cellulose	JRS Rettenmaier	5.00
	Bamboo Charcoal Powder	Charcoal Powder	GfN Selco	2.00
	Erylite® Stevia 400	Erythritol, Stevia Rebaudiana Extract	Jungbunzlauer	1.00

100.00

Procedure

- 1. Combine Phase A using a high shear mixer. Mix for 15 minutes.
- 2. Add Phase B, excluding mannitol, and mix for 10 minutes using a powder mixer.
- **3.** Add the mannitol and mix for 5 minutes using a powder mixer.
- **4.** Press the mixture into a tablet using a tablet press.

How To Use

Bite down on tablet to break. Brush for 2 minutes with wet toothbrush.

Active Detox Natural Toothpaste with Charcoal Cosmospheres® MC22-35

Dual action toothpaste with magnolia extract and Cosmospheres® fights the bacteria that cause bad breath and releases odor-neutralizing activated charcoal while brushing.

	Ingredients	INCI Nomenclature	Suppliers	% w / w
A	DI-Water	Water (Aqua)		qs
	Genecare® OSMS-BA	Betaine	IFF Health &	0.50
			Biosciences	
	BergaSoft LG 50 (MB)	Lauryl Glucoside	Berg + Schmidt	2.00
	Evicare® magnolia	Magnolia Officinalis Bark Extract	Evident Ingredients	0.20
	Erylite® Stevia 400	Erythritol, Stevia Rebaudiana Extract	Junbunzlauer	0.25
В	Zemea® Propanediol	Propanediol	CovationBio PDO LLC	5.00
	GLE Organic Glycerin	Glycerin	Green Line, LLC	15.00
	Clearthix® S	Cellulose Gum, Algin	Alchemy Ingredients	1.20
	Evicare® aquatex 80	Xanthan Gum	Evident Ingredients	0.20
C	Omyadent® 100-OG	Hydroxyapatite, Calcium Carbonate	Omya	5.00
	Omyacare® S90-KP	Calcium Carbonate	Omya	35.00
D	Peppermint Oil	Mentha Piperita (Peppermint) Oil		1.00
Е	Cosmospheres®	Mannitol, Microcrystalline Cellulose,	Omya	1.50
	Carbon	Charcoal Powder		

100.00

Procedure

- 1. Add Phase A ingredients and begin mixing with an overhead mixer and heating to 60°C. Mix until clear.
- 2. Combine Phase B ingredients and mix until homogeneous.
- **3.** Slowly add Phase B ingredients into Phase A. Increase agitation as gel forms and thickens. Mix for 15 minutes.
- **4.** Discontinue mixing. Add Phase C ingredients and mix slowly with a planetary mixer until all powders are wet. Increase agitation and mix for 30 minutes until smooth.
- **5.** Add Peppermint Oil and mix under low agitation for 5 minutes.
- **6.** Add Cosmospheres® and mix under low agitation until appearance is homogeneous.

How To Use

Apply a ribbon to toothbrush and brush teeth for 2 minutes.

Active Fresh Anticavity Fluoride Mouthwash

MC22-63_8B

Menthol Cosmospheres® add a burst of freshness to this structured mouthwash.

			·	
	Ingredients	INCI Nomenclature	Suppliers	% w / w
A	DI-Water	Water (Aqua)		40.00
В	Kelcogel CG-LA	Gellan Gum	CP Kelco	0.075
	Evicare® aquatex 14	Xanthan Gum	Evident Ingredients	0.070
C	Trisodium Citrate Dihydrate	Sodium Citrate		0.700
	Sodium Fluoride USP	Sodium Fluoride	PhibroChem	0.050
D	DI-Water	Water (Aqua)		qs
	GLE Organic Glycerin	Glycerin	Green Line, LLC	12.000
	BergaSoft LG 50 MB	Lauryl Glucoside	Berg & Schmidt	1.000
	Stevia RA 98%	Stevia Rebaudiana Leaf Extract		0.020
Е	Zemea® Propanediol	Propanediol	CovationBio PDO LLC	7.000
	Peppermint Oil	Mentha Piperita (Peppermint) Oil		0.100
	Lipocol® HCO-40	PEG-40 Hydrogenated Castor Oil	Vantage	0.500
	Natural Benzyl Alcohol	Benzyl Alcohol	Green Line, LLC	0.300
F	Cosmospheres® WLI-M	Mannitol, Microcrystalline Cellulose, Menthol, Propylene Glycol	Omya	1.000
G	Citric Acid (50% solution)	Citric Acid		qs

100.00

Procedure

- 1. Add Phase A water and begin propeller mixing while heating to 80-85°C.
- 2. Preblend Phase B powders and slowly add to Phase A. Continue mixing for 5-10 minutes until smooth and uniform.
- 3. Continue mixing and slowly add Phase C ingredients in batch card order, mix until clear and uniform.
- **4.** Stop mixing and allow batch to cool to room temperature. (should have gelatin-like consistency when fully set and cooled)
- 5. In a separate side kettle weigh out water of Phase D and begin mixing with propeller blade.
- **6.** Add remaining Phase D ingredients in batch card list, mix until clear and uniform.
- 7. In another side vessel preblend Phase E, mix until uniform.
- **8.** Once Phase E preblend is uniform slowly add to Phase D, mix until clear and uniform.
- 9. Combine both phases by adding Phase DE to Phase AB without mixing.
- **10.** Once combined begin mixing under overhead mixer with medium speed propeller agitation for 60 minutes until homogeneous and smooth. Adjust mixing speed to avoid excessive aeration or foam.
- 11. Homogenize for an additional 5-7 minutes to ensure full uniformity of gel.
- 12. Adjust to target pH with Phase G if needed.

How To Use

Vigorously swish 10 mL of mouthwash between your teeth for 1 minute and then expectorate.

Omya Consumer Goods

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Innovation Comes Naturally™



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