balchem®

Solve Today. Shape Tomorrow.

Human Nutrition & Health

Solutions Guide

Ingredients, Services, Technology, Inspiration

Contents

Solutions Guide

About the Balchem Human Nutrition & Health (HNH) Solutions Guide

This guide is organized to:

- Provide a general understanding of who we are and what we value
- Inspire you to engage with our expert teams of passionate people
- Identify the consumer benefit of our products and resources

Welcome to Balchem HNH

Balchem provides solutions that delight and nourish – from indulgence and sensory experiences to the rigors of targeted essential nutrition.

Thank you for your interest in Balchem Human Nutrition & Health. We hope to turn your curiosity into interest and inspire you to ***think differently*** about Balchem. Our motivated teams are ready to apply experience, expertise and creativity to help you deliver meaningful differentiation to the market. Engage with us in support of your growth.

Consumers around the world have a renewed awareness of nutrition and its impact on overall health and self-care. They view good health holistically and it includes **healthy relationships, behaviors, habits and practices that support the body, the mind and the soul**. Balchem can help you deliver food, beverages and dietary supplements solutions that meet consumer needs as they look for new ways to live healthier lives.

Balchem provides solutions that delight and nourish – from indulgence and sensory experiences, to the rigors of targeted essential nutrition. Engage with us to discover how our resources can enable your differentiation in the market.

Our Vision

Our vision is simple – to make the world a healthier place. We continue to build a global nutrition and health company that delivers trusted, innovative and science-based solutions to our customers. To enable our vision and impact health and well-being around the world, we rely on our core values that are the foundation and the very essence of who we are and how we do business.

Our core values

- Always doing the **RIGHT** thing
- Thinking **BIG** and acting small
- Collaborating and **GROWING** together
- Playing to **WIN**
- Staying focused on the **CUSTOMER**

Ignite Your Growth with TrenDish™

TrenDish™ is our proprietary process for delivering innovation. By collaborating with our Strategic Marketing and Science teams, we can help you turn consumer trends and insights into products that delight consumers and promote overall health and well-being.

Insights & Information

Our cross-functional marketing team has expertise in business-to-business and consumer marketing strategies, consumer research, insights and marketing communications. With a diverse mix of experience from different industries and markets, the team assesses the market for opportunities and finds the space where trends, insights and solutions converge.

Inspire & Ideate for Innovation

Our teams create innovation by enabling unique solutions with high-quality ingredients. Acknowledging the ever-changing market and consumer interests, we look for ways to renovate and innovate to help you leverage trends. With continuous internal multifunctional collaboration, we develop product concepts, formats and formulas that target specific consumer wellness states, psychographics, age demographics and lifestyle mindsets. Our uniquely crafted solutions will enable you to achieve on-trend wellness and sensory targets.

Impact

We offer on-site and virtual TrenDish market trend and innovation sessions that use consolidated market data from leading sources, boosted with Balchem primary research. Regular engagement with our marketing professionals to discuss insights and information will help shape your product development, renovation and innovation plans. Our marketing team thrives on sharing information and challenging current ways of thinking to explore new and different possibilities to provide function, nutrition, taste and sensory experiences for consumers.

Technology & Capability Overview

We apply our expertise and enable technologies that make food, beverages and dietary supplements better. Our capabilities translate to successful innovation in market for our partners.

Chelation

Albion® Minerals have been shown to have better tolerability, giving consumers a digestive system-friendly experience in their daily supplement consumption. The demonstrated greater bioavailability with chelated minerals results in a more cost-effective solution for consumer packaged goods (CPG) companies, with the ability to deliver a higher effective dose and reduce cost-in-use versus other forms.

Plant-based

We provide indulgent, functional and nutritious ingredients that promote plant consumption and do not contain animal or animal-derived components, marine products, bee products or insects. Balchem's application expertise enables development of delicious, nutritious, plant-based foods and beverages for everyone, every day.

Choline

Choline is an essential nutrient that our body makes in small amounts through a series of complex metabolic processes. **VitaCholine®** salts by Balchem are absorbed and converted into free choline, which the body then uses to support a healthy brain, liver and nervous system.*

Customized Ingredient Solutions

We provide industry differentiation by focusing on customized solutions for your unique needs. For our partners, we create personalized product concepts with consumer validation through market research. Our **INhance™ Inclusions** and **INjoy™ Flavor Bases** are unique solutions to bring forth various desired flavors, colors, textures, and aromas.

Extrusion

Our extruded proteins are used in bars, cereal, baked goods, meat alternatives and more to add visual appeal, texture, and to deliver the desired nutritional profile. They are used in novel ways to create on-trend products with new experiences for consumers.

Spray Drying

Our spray drying expertise enables us to convert lipids into emulsified, free-flowing powders. We deliver functionality by design – our emulsified powders are multi-component systems, incorporating various functional ingredients into a stable and convenient powder form.

Agglomeration

Through agglomeration, Balchem creates finished powders that dissolve into solution faster, without lumps. We utilize continuous and batch agglomeration technology to make ingredients or finished products less dense, more free-flowing and dispersible in liquids.

Encapsulation

Encapsulation protects the encapsulate or active ingredient in order to maintain ingredient functionality and stability until the appropriate release conditions are met. Balchem encapsulates help to extend shelf life, optimize texture, maintain consistent flavor, improve production efficiency, reduce sodium, reduce food waste and enable clean labels.

*These statements have not been evaluated by the Federal Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Solutions by Market Segment & Application

Balchem combines technical and manufacturing expertise to provide multi-component ingredient systems, designed for high performance and sensory experience in various applications. From indulgence to targeted nutrition, our application platforms offer proven and even customizable solutions. Here are some of the market segments and applications we serve.

Functional Food & Beverage

With more and more consumers looking to improve their health through what they eat, foods improved with added nutrients can provide the solution. By combining high-quality nutrients with exceptional flavor and sensory profiles, you can delight consumers by delivering the wellness benefits they seek in the food, beverages and supplements they enjoy every day.

Dietary Supplements

Our chelated minerals and nutrients deliver on consumer-derived wellness needs for all ages. Our functional nutritional powders, extruded crisps and proteins, and other food manufacturing capabilities provide for more novel delivery forms and formats to accommodate consumers looking for nutrition outside of a pill or capsule.

Medical Food

Our nutrients, flavor and sensory technologies enable medical foods to be specially formulated to help manage conditions with nutritional needs that cannot be met by normal diet alone.

Beverage

We deliver convenience, quality and efficiency through integrated technologies of dry and liquid blending, spray drying, instantizing and agglomeration. Our beverage systems and functional bases bring both taste and nutrition to your innovations.

Nutritional & Protein Bars, Snacks & Cereal Systems

Our functional nutritional powders and extruded proteins are excellent ingredients to create new or improve existing products. We offer powders and extruded proteins that add nutrition, support your marketing label claims, provide a functional benefit, and add texture, flavor and color.

Bakery & Desserts

Our encapsulated products deliver tangible improvements in finished product quality and shelf life. We offer high-performance inclusions that deliver on flavor, texture, color and appearance, and can create customized consumer trend-driven baked goods. Our spray dried and agglomerated powders are used in baking mixes and are also available in plant-based solutions. Enhance protein content in your baked goods with our extruded protein line of **Z-Crisps®**.

Frozen Desserts, Ice Cream, Novelties & Cultured Dairy

A Balchem specialty is creating best-in-class flavor and sensory systems. We offer targeted nutritional blends to customize and create consumer trend-driven food products.

Confectionery

Balchem specializes in the development and delivery of encapsulated solutions for top confectionery manufacturers. We provide a unique blend of technical expertise and problem-solving support. **ConfecShure®** encapsulated ingredients let you control the release of acid or sugar using our proprietary microencapsulation technology. We protect ingredients from degradation and premature reactions, strategically delivering them for optimum performance.

Savory, Meat & Plant-Based Applications

Our fat-based and protein powders can be used in soups, sauces, gravies, ready meals and more. Our protein crisps and texturized vegetable proteins can be used in savory applications to enhance texture, deliver nutrition, improve the sensory experience and create alternatives to meat in plant-based formats. The encapsulation technology enables better processing in the meat industry. Our inclusions are sweet or savory, with customizable color, flavor, size, texture and labeling. They can also come in plant-based versions to deliver the taste and experience of meat and dairy.

Infant Nutrition

Balchem is helping babies get a smart start through better nutrition. **VitaCholine®** is the gold standard in choline supplementation. Choline is an essential nutrient, critical for both prenatal vitamins and infant formula to help ensure proper brain health and development.*

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Product Index

Minerals & Nutrients

VitaCholine®

VitaCholine® is the premier source of choline, made to the highest standards to deliver relevant and compelling health benefits to consumers. VitaCholine is used in infant formula, prenatal multivitamins, fortified foods and many other products.

The Non-GMO Project, a third party non-GMO verification program, reviews our products to ensure we deliver the standard consumers expect.

Product Family	Product Form	Product Code
VitaCholine® Choline Chloride	Choline Chloride USP/FCC	F6522120
	Choline Chloride 1% Conditioned	F6524120
VitaCholine® Choline Bitartrate	Choline L(+) Bitartrate – regular	F6492120
	Choline L(+) Bitartrate – conditioned regular	F6512120
	Choline L(+) Bitartrate – conditioned 20-mesh	F6502120
	Choline L(+) Bitartrate – conditioned 40-mesh	F6472120
	Choline L(+) Bitartrate – conditioned 60-80-mesh	F6672118
VitaCholine® Choline Dihydrogen Citrate	Choline Dihydrogen Citrate – conditioned	F4562121
VitaCholine® Microencapsulated	VitaCholine B90 (Microencapsulated)	F4007017
	VitaCholine B90EU (Microencapsulated)	F4004017

VitaShure®

VitaShure® products utilize our proprietary encapsulation technology to offer controlled delivery of various nutrients. By providing a protective coating around active ingredients, our encapsulates allow the consumer to enjoy multiple sensory and functional benefits including taste-masking, protection from undesired ingredient interactions and sustained release profiles for targeted delivery applications. Our **VitaShure** products give you greater control over the protection and release of nutrient blends, ultimately creating an optimized experience for the consumer.

Product Family	Product Form	Product Code
VitaShure® Encapsulated Nutrients	VitaShure® 157, Encapsulated Ascorbic Acid	F4157017
	VitaShure® 160, Encapsulated Ascorbic Acid	F4160017
	VitaShure® 300, Encapsulated Caffeine	F4300017
	VitaShure® Caffeine SR, Encapsulated Caffeine	D4006217
	VitaShure® 484, Encapsulated Ferrous Sulfate	F4484017
	VitaShure® 664, Encapsulated Dipotassium Phosphate	F4664017

Albion® Minerals

With over 200 scientific studies, dozens of patents and nearly 80 completed clinical trials using **Albion® Minerals**, Balchem is the established market leader delivering health benefits throughout the lifespan and deliver nutrition to all consumers. Our chelates meet regulatory standards for safety in the US and in many markets across the globe.

We offer a broad array of products that can be used in a wide range of product applications, including dietary supplements and select food items.

Calci-K® CalActiv™ CHELATED CALCIUM DimaCal® CREATINE MAGNAPOWER® FERROCHEL® CHELATED IRON METAMAG™ CHELATED MAGNESIUM ZLife™ CHELATED ZINC

Product Family	Product Form	Product Code
Boron	Bororganic Glycine	03508
Calcium	Calci-K® (Calcium Potassium Phosphate Citrate)	04500
	CalActiv™ (Calcium Bisglycinate Chelate)	03450
	CalActiv™ (Calcium Bisglycinate Chelate Buffered)	03534
	CalActiv™ (Calcium Bisglycinate Chelate Granular)	03453
	Calcium Bisglycinate Chelate Taste Free	03460
	Calcium Citrate Malate	04055
	Calcium Citrate Malate C	04058
	DimaCal® (Dicalcium Malate)	04050
	DimaCal® Granular (Dicalcium Malate Granular)	04049
	DimaCal® Tabletable (Dicalcium Malate Tabletable)	04048
Chromium	Chromium Nicotinate Glycinate Chelate	03492
Copper	Copper Bisglycinate Chelate	03502
Iron	Ferrochel® (Ferrous Bisglycinate Chelate)	03509
	Iron Taste Free	03466

Product Family	Product Form	Product Code
Magnesium	DiMagnesium Malate	04051
	DiMagnesium Malate Granular	04052
	MetaMag® (Magnesium Bisglycinate Chelate)	03476
	MetaMag® (Magnesium Bisglycinate Chelate Buffered)	03451
	MetaMag® (Magnesium Bisglycinate Chelate Buffered Granular)	03951
	MetaMag® (Magnesium Bisglycinate Chelate Granular)	03477
	Magnesium Bisglycinate Chelate Taste Free	03461
	MetaMag® MLG (Magnesium Lysinate Glycinate Chelate)	03500
	Creatine MagnaPower® (Magnesium Creatine Blend)	03465
Manganese	Manganese Bisglycinate Chelate	03505
Molybdenum	Molybdenum Glycinate Chelate	03526
Potassium	Potassium Glycinate Complex	03145
Selenium	Selenium Glycinate	03522
Vanadium	Vanadium Nicotinate Glycinate Chelate	03518
Zinc	Zinc Arginate Chelate	03516
	Z-Life™ (Zinc Bisglycinate Chelate)	03506
	Zinc Bisglycinate Chelate Max	03530
	Zinc Bisglycinate Chelate Taste Free	03463

OptiMSM®

OptiMSM® is the only GRAS-designated Methylsulfonylmethane (MSM) manufactured exclusively in the USA in a single-purpose, cGMP-compliant, ISO-registered facility to help provide essential traceability. In addition, OptiMSM is produced using a proprietary, multi-stage distillation process, ensuring optimal purity, and every batch is third-party tested for purity, quality, and consistency.

MSM is a sulfur-containing compound and can be found naturally in high concentration in plants and animal sources. Though for vegans and vegetarians, relying on plant sources may prove to be difficult since the sulfur content of soil influences sulfur concentrations in plants which can vary greatly.

OptiMSM, which contains 34% elemental sulfur, has been shown to support several health benefits like muscle and exercise recovery*,joint mobility*, and healthy skin and hair*.

Product Family	Product Form	Product Code
OptiMSM® Methylsulfonylmethane	OptiMSM® Microprill with 0.1% SiO2	10120
	OptiMSM® Microprill with 0.5% SiO2	10520
	OptiMSM® Flakes	20020
	OptiMSM® 1000mg, Clear Vegi cap 00E	12015011118K

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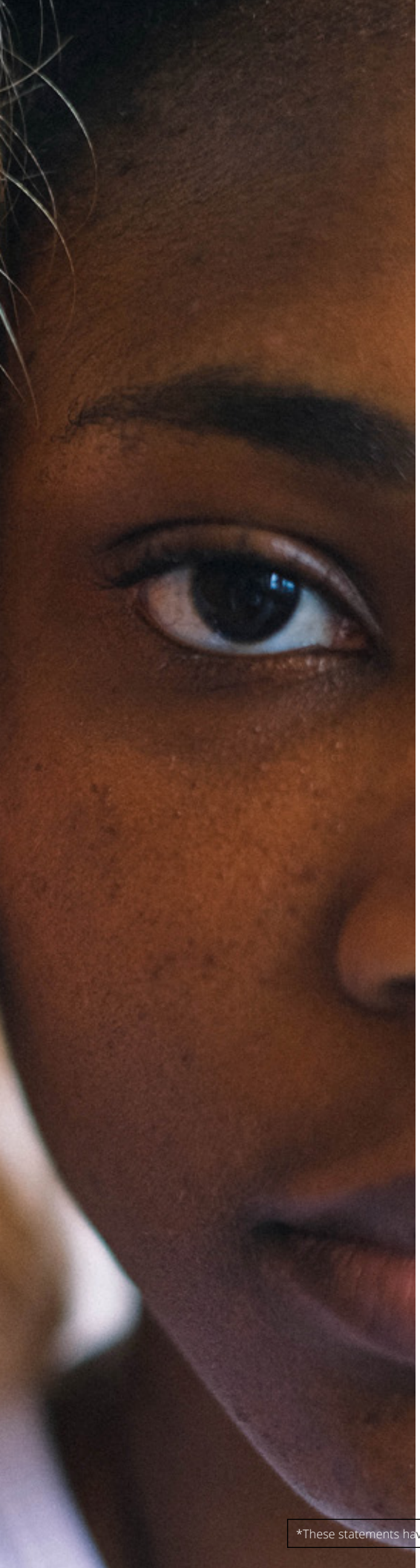

K2VITAL®

Vitamin K2 is an essential fat-soluble vitamin. Today, our diets do not provide much Vitamin K2. Vitamin K supports strong bones and contributes to normal blood clotting.* **K2VITAL®** is K2 MK-7 in its purest form, the first of its kind available on a large scale, with a minimum of 99.7% all-trans content. This means it's fully bioactive. It's identical to the vitamin K2 found in nature and has a half-life of 72 hrs. K2VITAL is the reference standard for US Pharmacopeia.

Put simply. It's K2 we're proud to put our name on.

The right vitamin K2 should offer the same quality in a world of different formulations. We use pure vitamin K2 MK-7 to make our K2VITAL. In its raw form, it's a crystalline powder, but because humans need it at much lower dosages, it gets diluted. We can dilute to fit any formulation, from tablets to soft gels, powders to liquids, gummies to oral sprays, or various food applications.

Vitamin K2 is sensitive by nature. It degrades in the presence of minerals. K2VITAL DELTA is the first vitamin K2 microencapsulated in special double coated beadlets for complete stability in any environment.

Product	Application
K2VITAL® MCC	For dry powder formulations
K2VITAL® ALPHA	Crystalline, pure K2 MK-7 for customized applications
K2VITAL® MCT	For oil-based liquid or semi-solid formulations. In the US, also available as certified organic version.
K2VITAL® DELTA	For dry powder, oil-based liquid, semi-solid formulations, and where water dispersibility is needed. Uniquely patented for mineral combinations.

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Functional & Nutritional Powders

Our spray dried powders provide improved functionality to a wide variety of finished food systems. Non-dairy or dairy-based powders are available and provide creaminess, flavor, foaming, improved texture and mouthfeel, structure and stability, and deliver nutritional properties. A wide range of formulas are available with various fat levels and functionalities to meet different application requirements. Some of our products that serve various applications are listed in the following chart.

VitalBlend™

VitalBlend™ Plant-based

Balchem Product Name *SKU*	Fat Source	Target Fat	Target Protein	Key Ingredients								
Unique												
VitalBlend™ Avocado IP II *175767-50*	Avocado	50%	1%	Avocado oil, acacia gum, silicon dioxide, sunflower lecithin, mixed tocopherols, rosemary extract, sunflower oil	●					●		
QuIC Milk F *102MLKF-50*	Dairy	1%	37%	Nonfat milk	●							
Quali Cream™ 7211 *1017211-50*	Dairy	73%	13%	Cream, nonfat dry milk, dipotassium phosphate, silicon dioxide	●	●	●					
VitalBlend™ Olive 7500 *178742-50*	Olive	75%	5%	Extra virgin olive oil, soluble corn fiber, sodium caseinate, sunflower lecithin, silicon dioxide, tocopherols	●	●	●	●				
Centennial™ 73 Safflower CI *178625*	Safflower	70%	9%	Safflower oil with tocopherols, nonfat dry milk, disodium phosphate, silicon dioxide (flow agent), natural flavor	●	●		●				
Coconut												
VitalBlend™ Oat 1703NG *169381-50*	Coconut	17	5%	Tapioca maltodextrin, chickpea protein concentrate, coconut oil, soluble tapioca fiber, oat bran, calcium carbonate, salt, natural flavor, silicon dioxide, vitamin A palmitate, vitamin D3	●	●		●				
Jerzee™ 20 Coconut Ntlp2 *169355*	Coconut	20	2%	Corn syrup solids, coconut oil, dipotassium phosphate, sodium caseinate, titanium dioxide, silicon dioxide (flow agent), mono- and diglycerides, turmeric and annatto extracts, and artificial flavor	●				●			
Jerzee™ Generic 247 NT *169305*	Coconut	20	3%	Corn syrup solids, coconut oil, sodium caseinate, dipotassium phosphate, silicon dioxide, titanium dioxide, mono & diglycerides, turmeric and annatto extracts, artificial flavor	●				●			
Cocoa Riche 800 Coconut NF *170325*	Coconut	30	4%	Corn syrup solids, coconut oil, sodium caseinate, dipotassium phosphate, mono- and diglycerides, silicon dioxide, turmeric and annatto extracts (for color)	●	●					●	
QuIC Creamer™ 3005 *1043005-50*	Coconut	35	3%	Corn syrup solids, coconut oil, sodium caseinate, dipotassium phosphate, contains 2% or less of each of the following: mono- and diglycerides, sodium aluminosilicate	●							
QuIC Creamer™ 3004 *1043004-50*	Coconut	35	3%	Corn syrup solids, coconut oil, sodium caseinate, dipotassium phosphate, mono- and diglycerides, sodium aluminosilicate	●	●		●	●			
Richmix® LD-23 Non-Dairy Creamer NPH *6605-NPH*	Coconut	35	3%	Corn syrup solids, hydrogenated coconut oil, sodium caseinate, dipotassium phosphate, mono- and diglycerides, sodium aluminosilicate, soy lecithin, natural and artificial flavor, annatto (for color)	●	●					●	

Plant-based is defined as not containing animal-derived components

Beverages · Savory · Bakery/Dessert · Snacks/Cereals · Hot Liquid - Soluble · Cold Liquid - Soluble · Dessert/Whipped Topping · Nutritional Powder

Balchem Product Name *SKU*	Fat Source	Target Fat	Target Protein	Key Ingredients	Beverages	Savory	Bakery/Dessert	Snacks/Cereals	Hot Liquid - Soluble	Cold Liquid - Soluble	Dessert/Whipped Topping	Nutritional Powder
Coconut *continued*												
Richmix® 4807 *175404-50*	Coconut	47	4%	Hydrogenated coconut oil, corn syrup solids, sodium caseinate, dipotassium phosphate, contains 2% or less of each of the following: sugar, mono- and diglycerides, sodium aluminosilicate, sodium stearoyl lactylate, soy lecithin, artificial flavor, annatto and turmeric extracts (color)	●							
Jerzee™ Blend 22007 Coconut HMP *175366*	Coconut / Palm Kernel	48%	5%	Hydrogenated coconut and palm kernel oil, corn syrup solids, sodium caseinate, dipotassium phosphate, mono & diglycerides, silicon dioxide, soy lecithin	●	●	●					
QuIC Creamer™ 4803 *1044803-50*	Coconut	48%	5%	Coconut oil, corn syrup solids, sodium caseinate, dipotassium phosphate, sugar, mono- and diglycerides, sodium aluminosilicate, tetrasodium pyrophosphate, soy lecithin	●		●		●			
QuIC Creamer™ 5004 *1045004-50*	Coconut	49%	3%	Coconut oil, corn syrup solids, sodium caseinate, sodium citrate, mono- and diglycerides, salt, sodium aluminosilicate	●	●	●					
QuIC Creamer™ 5105 *175397-50*	Coconut	49%	2%	Coconut oil, corn syrup solids, sodium caseinate, sodium citrate, dipotassium phosphate, mono & diglycerides, salt, silicon dioxide	●	●			●			
Jerzee™ CWS - 80Bx Sc *199663*	Coconut	49%	0%	Coconut oil, maltodextrin, modified food starch, contains 2% or less of the following: mono- and diglycerides, tricalcium phosphate (flow agent)	●	●	●		●			●
QuIC Creamer™ 5000 *1045000-50*	Coconut	49%	6%	Coconut oil, corn syrup solids, sodium caseinate, dipotassium phosphate, mono- and diglycerides, silicon dioxide	●	●	●		●		●	●
QuIC Creamer™ 5201 NPH *1045201-NPH*	Coconut	49%	3%	Coconut oil, corn syrup solids, sodium caseinate, mono and diglycerides (with tocopherols, ascorbic acid, citric acid to preserve freshness), dipotassium phosphate, silicon dioxide	●	●			●	●	●	
Jerzee™ Blend Ndb *175305*	Coconut	50%	4%	Coconut oil, corn syrup solids, sodium caseinate, sugar, dipotassium phosphate, propylene glycol esters of fatty acids, mono- and diglycerides, sodium aluminosilicate, salt, soy lecithin, calcium carrageenan, artificial flavor and color	●		●				●	
Jerzee™ Blend 22007-Coconut A *175345*	Coconut	50%	4%	Coconut oil, corn syrup solids, sodium caseinate, mono- and diglycerides, dipotassium phosphate, sodium aluminosilicate	●	●	●		●		●	
Jerzee™ 50-Coconut CL2 Certified Kosher Dairy *175372*	Coconut	50%	4%	Coconut oil, maltodextrin, sodium caseinate, mono & diglycerides, silicon dioxide	●	●		●			●	
Richmix® B2 SI NPH *175354-NPH*	Coconut	50%	6%	Coconut oil, corn syrup solids, sodium caseinate, dipotassium phosphate, mono and diglycerides, silicon dioxide, soy lecithin	●	●			●			

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Beverages · Savory · Bakery/Dessert · Snacks/Cereals · Hot Liquid - Soluble · Cold Liquid - Soluble · Dessert/Whipped Topping · Nutritional Powder

Balchem Product Name *SKU*	Fat Source	Target Fat	Target Protein	Key Ingredients								
VitalBlend™ Pea VI IP *175392-50*	Coconut	50%	12%	Coconut oil, inulin, pea protein isolate, sodium citrate, sunflower lecithin, tricalcium phosphate	●							●
VitalBlend™ Coconut 5001 *175403-50*	Coconut	50%	1%	Coconut oil, acacia gum	●							
VitalBlend™ Oat 5001 NG *175772-50*	Coconut	50%	16%	Coconut oil, chickpea protein concentrate, tapioca maltodextrin, cocoa butter, oat bran, soluble tapioca fiber, silicon dioxide, salt, natural flavor	●	●	●					
Richmix® 5024 IP *175316-50*	Coconut	50%	4%	Coconut oil, maltodextrin, sodium caseinate, silicone dioxide, sodium citrate, soy lecithin	●	●			●		●	
Jerzee™ Blend C *175300*	Coconut	50%	4%	Coconut oil, corn syrup solids, potassium caseinate, sugar, dipotassium phosphate, mono- and diglycerides, salt, sodium stearoyl lactylate, carrageenan, sodium aluminosilicate, artificial flavor, annatto and turmeric extracts (for color)	●	●	●				●	
Jerzee™ 50 Coconut IP *199710*	Coconut	50%	4%	Coconut oil, maltodextrin, sodium caseinate, mono- and diglycerides (with citric acid to preserve freshness), silicon dioxide	●	●						●
VitalBlend™ Organic Pea XI *175394-40*	Coconut	50%	12%	Organic coconut oil, organic rice syrup solids, organic pea protein, sodium citrate, tricalcium phosphate, organic sunflower lecithin	●		●					
Richmix® B1 MD SI NPH *18871-NPH*	Coconut	50%	5%	Coconut oil, maltodextrin, sodium caseinate, dipotassium phosphate, mono- and diglycerides (with citric acid to preserve freshness), silicon dioxide, soy lecithin	●	●	●			●		●
Richmix® B-1 NPH *5100-NPH*	Coconut	50%	5%	Hydrogenated coconut oil, corn syrup solids, sodium caseinate, mono- and diglycerides, dipotassium phosphate, sodium aluminosilicate, soy lecithin	●	●	●					●
Richmix® A NPH *5098-NPH*	Coconut	52%	5%	Hydrogenated coconut oil, corn syrup solids, sodium caseinate, sugar, dipotassium phosphate, propylene glycol esters of fatty acids, mono- and diglycerides, sodium aluminosilicate, salt, soy lecithin, carrageenan, natural and artificial flavors, annatto (for color)	●	●	●					
Richmix® A Non-Hydro NPH *98446-NPH-50*	Coconut	53%	5%	Coconut oil, corn syrup solids, sodium caseinate, sugar, dipotassium phosphate, silicon dioxide, propylene glycol esters of fatty acids, mono- and diglycerides, salt, soy lecithin, carrageenan, natural and artificial flavors, annatto (for color)	●				●		●	
QuIC Creamer™ 7170 *1047170-50*	Coconut	71%	0%	Coconut oil, maltodextrin, modified food starch, monoand diglycerides, silicon dioxide, hydrogenated palm oil	●	●	●	●				

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Beverages · Savory · Bakery/Dessert · Snacks/Cereals · Hot Liquid - Soluble · Cold Liquid - Soluble · Dessert/Whipped Topping · Nutritional Powder

Balchem Product Name *SKU*	Fat Source	Target Fat	Target Protein	Key Ingredients								
Coconut *continued*												
QuIC Creamer™ 7102 *1047102*	Coconut	73%	2%	Coconut Oil, Maltodextrin, Sodium Caseinate, Dipotassium Phosphate, Mono & Diglycerides, Silicone Dioxide		●						
Centennial™ 73 Coconut IP2 *178316-40*	Coconut	73%	2%	Coconut oil, maltodextrin, sodium caseinate, mono- and diglycerides, dipotassium phosphate, silicon dioxide (anticaking agent)	●	●	●	●				
Centennial™ II Coconut *178310*	Coconut	73%	4%	Coconut oil, corn syrup solids, sodium caseinate, mono- and diglycerides, sodium aluminosilicate	●	●	●	●				
Centennial™ I Coconut *178301*	Coconut	74%	5%	Coconut oil, lactose, sodium caseinate, dipotassium phosphate, silicon dioxide	●	●	●	●				●
VitalBlend™ Coconut II *178326*	Coconut	75%	5%	Coconut oil, inulin, sodium caseinate, sunflower lecithin, silicon dioxide	●	●	●					
Centennial™ 7505 *178333*	Coconut	75%	15%	Coconut oil, whey protein concentrate, soluble corn fiber, contains 2% or less of each of the following: dipotassium phosphate		●	●	●				
Centennial™ 7506 *175764-50*	Coconut	75%	5%	Coconut oil, avocado oil, soluble tapioca fiber, sodium caseinate, contains 2% or less of each of the following: sunflower lecithin, silicon dioxide, mixed tocopherols, rosemary extract, sunflower oil		●	●	●				
Centennial™ 75 Coconut CL2 *178325*	Coconut	75%	5%	Coconut oil, soluble corn fiber, sodium caseinate, sunflower lecithin, silicon dioxide	●	●	●	●				
Centennial™ 7508 NG *178332-50*	Coconut	75%	5%	Coconut oil, soluble tapioca fiber, sodium caseinate, contains 2% or less of each of the following: sunflower lecithin, silicon dioxide	●	●	●	●				●
MCT												
VitalBlend™ MCT 5001 *175399-50*	MCT	50%	1%	MCT Oil, acacia gum	●			●				
VitalBlend™ MCT 5000 *175758-50*	MCT	51%	4%	Medium-chain triglycerides, tapioca maltodextrin, nonfat dry milk, potassium citrate, silicon dioxide (flow agent)	●		●					
Richmix® 5025 IP *175755-50*	MCT	52%	0%	Medium-chain triglycerides, maltodextrin, acacia gum, silicon dioxide, sunflower lecithin	●					●		●
VitalBlend™ MCT NG XII *178726-50*	MCT	72%	5%	Medium-chain triglycerides, inulin, sodium caseinate, silicon dioxide, sunflower lecithin	●			●				
VitalBlend™ MCT 7202 NG *178732-50*	MCT	72%	9%	Medium chain triglycerides, nonfat dry milk, silicon dioxide, disodium phosphate	●			●				

Plant-based is defined as not containing animal-derived components

Beverages Savory Bakery/Dessert Snacks/Cereals Hot Liquid - Soluble Cold Liquid - Soluble Dessert/Whipped Topping Nutritional Powder

Balchem Product Name *SKU*	Fat Source	Target Fat	Target Protein	Key Ingredients								
VitalBlend™ MCT NG *178703*	MCT	73%	24%	Medium-chain triglycerides, sodium caseinate, silicon dioxide, sunflower lecithin	●	●	●	●				●
Centennial 75 MCT Cl IP *178713*	MCT	75%	5%	Medium Chain Triglycerides, soluble corn fiber, sodium caseinate, sunflower lecithin, silicon dioxide	●			●				
VitalBlend™ MCT III *178718*	MCT	75%	5%	Medium Chain Triglycerides, soluble corn fiber, sodium caseinate, choline chloride, sunflower lecithin, silicon dioxide	●			●				
VitalBlend™ MCT 7506 *178731-50*	MCT	75%	20%	Medium-chain triglycerides, sodium caseinate	●			●				●
VitalBlend™ MCT 7510 NG *178734-50*	MCT	75%	5%	Medium-chain triglycerides, soluble tapioca fiber, sodium caseinate, choline chloride, silicon dioxide, sunflower lecithin	●			●				
VitalBlend™ MCT 7511 NG *178735-50*	MCT	75%	5%	Medium chain triglycerides, soluble tapioca fiber, sodium caseinate,sunflower lecithin, silicone dioxide	●			●				
Centennial™ 75 MCT Cl *178715*	MCT	75%	5%	Medium-chain triglycerides, soluble corn fiber, sodium caseinate, sunflower lecithin, silicon dioxide (flow agent)	●	●		●				
Palm												
QuIC Creamer™ 2010 *169710*	Palm	20%	0%	Corn syrup solids, palm oil, contains 2% or less of each of the following: dipotassium phosphate, mono- and diglycerides (with tocopherols, ascorbic acid, citric acid to preserve freshness), titanium dioxide (color), sodium aluminosilicate, sodium caseinate, DATEM, sodium tripolyphosphate, natural and artificial flavors, beta carotene (color), riboflavin (color)	●	●			●			
QuIC Creamer™ 3810 *172701*	Palm	37%	3%	Corn syrup solids, palm oil, sugar, sodium caseinate, dipotassium phosphate, mono & diglycerides, sodium stearoyl lactylate, sodium alluminosillicate, salt, carrageenan, artificial flavor, annatto color	●	●	●	●	●			
Jerzee™ 31-Palm NT *170706-MB*	Palm	31%	3%	Corn syrup solids, palm oil, sodium caseinate, dipotassium phosphate, mono- and diglycerides, sodium aluminosilicate, artificial flavor, riboflavin (for color)	●	●		●				
QuIC Creamer™ 3301 NPH *1043301-NPH*	Palm	34%	1%	Maltodextrin, palm oil, sodium caseinate, dipotassium phosphate, mono- and diglycerides (with tocopherols, ascorbic acid, citric acid to preserve freshness), sodium aluminosilicate, natural flavor, annatto extract (for color), sodium hexametaphosphate	●	●			●	●		

Plant-based is defined as not containing animal-derived components

Beverages · Savory · Bakery/Dessert · Snacks/Cereals · Hot Liquid - Soluble · Cold Liquid - Soluble · Dessert/Whipped Topping · Nutritional Powder

Balchem Product Name *SKU*	Fat Source	Target Fat	Target Protein	Key Ingredients	Beverages	Savory	Bakery/Dessert	Snacks/Cereals	Hot Liquid - Soluble	Cold Liquid - Soluble	Dessert/Whipped Topping	Nutritional Powder
Palm *continued*												
QuIC Creamer™ 3813 *172705-1200-EXP*	Palm	39%	2%	Corn syrup solids, palm oil, sodium caseinate, contains 2% or less of each of the following: dipotassium phosphate, sugar, mono- and diglycerides (with tocopherols, ascorbic acid, citric acid to preserve freshness), silicon dioxide, natural and artificial flavors	●		●					
QuIC Whip™ 5001 *175386-MB*	Palm	47%	6%	Hydrogenated vegetable oil (palm kernel and coconut), corn syrup solids, lactose, sugar, lactic acid ester of mono- and diglycerides, sodium caseinate, mono- and diglycerides (with tocopherols, ascorbic acid, citric acid to preserve freshness), contains 2% or less of each of the following: sodium aluminosilicate, dipotassium phosphate, natural and artificial flavors, soy lecithin, citric acid (to preserve freshness), annatto (color)			●				●	
VitalBlend™ Organic Pea IV *175750-MB*	Palm	49%	11%	Organic palm oil, organic rice syrup solids, organic pea protein, contains 2% or less of each of the following: silicon dioxide, organic sunflower lecithin	●	●						
QuIC Whip™ 8010 NPH *1128010-50-NPH-MB*	Palm	49%	5%	Hydrogenated palm kernel oil, corn syrup solids, lactose, sugar, lactic acid esters of mono- and diglycerides, sodium caseinate, mono- and diglycerides (with tocopherols, ascorbic acid, citric acid to preserve freshness), sodium aluminosilicate, dipotassium phosphate, artificial flavor			●				●	
QuIC Creamer™ 5301 NPH *1045301-NPH*	Palm	50%	4%	Palm Oil, corn syrup solids,sodium caseinate, dipotassium phosphate, mono & diglycerides,, silicone dioxide	●	●				●		
Richmix® 4803 *175748-50*	Palm	50%	2%	Palm oil, corn syrup solids, contains 2% or less of each of the following: sodium caseinate, mono- and diglycerides, sodium citrate, salt, dipotassium phosphate, sodium aluminosilicate, carrageenan, natural flavor	●	●						
Richmix® 5027 *175754-MB-50*	Palm	50%	5%	Palm oil, corn syrup solids, sodium caseinate, mono- and diglcerides, dipotassium phosphate, contains 2% or less of each of the following: sodium aluminosilicate, soy lecithin		●	●					
Jerzee™ 50 Palm *175705*	Palm	50%	2%	Palm oil, corn syrup solids, sodium caseinate, mono- and diglycerides, sodium aluminosilicate (flow agent), BHT added to help protect flavor	●	●	●					
QuIC Whip™ 8006 NPH *1128006-50-NPH*	Palm	55%	9%	Hydrogenated palm kernel oil, maltodextrin, propylene glycol esters of fats and fatty acids, sodium caseinate, acetylated monoglycerides, contains 2% or less of each of the following: dipotassium phosphate, microcrystalline cellulose, hydroxypropyl methyl cellulose, carboxymethylcellulose sodium, mono- and diglycerides, sodium aluminosilicate			●				●	

Plant-based is defined as not containing animal-derived components

Beverages Savory Bakery/Dessert Snacks/Cereals Hot Liquid - Soluble Cold Liquid - Soluble Dessert/Whipped Topping Nutritional Powder

Balchem Product Name *SKU*	Fat Source	Target Fat	Target Protein	Key Ingredients								
DMP NPH *176725*	Palm	68%	9%	Palm kernel oil, sugar, corn syrup solids, sodium caseinate, propylene glycol mono esters, acetylated monoglycerides, mono- and diglycerides, sodium aluminosilicate (flow agent)			●				●	
QuIC Creamer™ 7351 *1047351-50*	Palm	72%	2%	Palm oil, corn syrup solids, sodium caseinate, dipotassium phosphate, mono- and diglycerides, sodium aluminosilicate	●	●	●	●				
Centennial™ 7307 *178721*	Palm	73%	3%	Palm oil, corn syrup solids, sodium caseinate, contains 2% or less of each of the following: dipotassium phosphate, monoglycerides, sodium aluminosilicate (anti-caking agent)		●	●	●				
Centennial™ 73-Palm NTHB *178710*	Palm	74%	4%	Palm oil, maltodextrin, sodium caseinate, dipotassium phosphate, mono- and diglycerides, sodium hexametaphosphate, silicon dioxide	●	●	●	●				
Centennial™ 75 Palm NP *178705*	Palm	75%	0%	Palm oil, maltodextrin, modified food starch, and sodium aluminosilicate (flow agent)	●	●	●	●				
Sunflower												
Richmix® CWS Beverage Base *18627*	Sunflower	38%	5%	Corn syrup solids, Sunflower oil, sodium caseinate, dipotassium phosphate, soy lecithin, sodium silico alluminate, artificial flavor and artificial color	●	●		●		●		
Jerzee™ CWS 80-Bxs *175620*	Sunflower	49%	0%	Sunflower oil (with natural tocopherols), maltodextrin, modified food starch, mono- and diglycerides, tricalcium phosphate	●	●	●			●		
Jerzee™ CWS 80-Bx *175615*	Sunflower	50%	4%	High oleic sunflower oil, maltodextrin, sodium caseinate, mono- and diglycerides, natural tocopherols, tricalcium phosphate	●	●				●		
Jerzee™ 50-Sunflower Cl3 Certified Kosher Dairy *175630*	Sunflower	50%	0%	High oleic sunflower oil, maltodextrin, sodium caseinate, dipotassium phosphate, soy lecithin, silicon dioxide (flow agent), natural tocopherols	●	●				●		
Jerzee™ CWS 50-Sunflower NP IP *175636*	Sunflower	50%	0%	Sunflower oil (with tocopherols), maltodextrin, modified food starch, mono- and diglycerides (with citric acid to preserve freshness), tricalcium phosphate	●	●	●					●
VitalBlend™ Organic Pea X *175647-40*	Sunflower	50%	12%	Organic high oleic sunflower oil, organic rice syrup solids, organic pea protein, contains 2% or less of each of the following: sodium citrate, organic sunflower lecithin, tricalcium phosphate	●							
Richmix® Sun 50 MD Base NPH *17922-NPH*	Sunflower	50%	6%	Sunflower oil, maltodextrin, sodium caseinate, monoand diglycerides, dipotassium phosphate, soy lecithin, sodium aluminosilicate, tocopherols	●	●						●

Plant-based is defined as not containing animal-derived components

Beverages · Savory · Bakery/Dessert · Snacks/Cereals · Hot Liquid - Soluble · Cold Liquid - Soluble · Dessert/Whipped Topping · Nutritional Powder

Balchem Product Name *SKU*	Fat Source	Target Fat	Target Protein	Key Ingredients								
Sunflower *continued*												
Jerzee™ CWS 50-Sunflower IP3 *175637*	Sunflower	50%	4%	Sunflower oil, maltodextrin, sodium caseinate, monoand diglycerides (with citric acid to preserve freshness), tocopherols, tricalcium phosphate	●	●	●					●
Richmix® HO Sun 50-Nt NPH *18313-NPH*	Sunflower	50%	6%	Sunflower oil, corn syrup solids, sodium caseinate, mono- and diglycerides, dipotassium phosphate, tricalcium phosphate, soy lecithin, tocopherols	●	●				●		●
Richmix® Sun 50 NPH *19129-NPH*	Sunflower	50%	6%	Sunflower oil, corn syrup solids, sodium caseinate, mono- and diglycerides, dipotassium phosphate, contains 2% or less of each of the following: tricalcium phosphate, soy lecithin, tocopherols (added to help protect flavor)		●						
VitalBlend™ IX *175671*	Sunflower	52%	42%	High Oleic sunflower oil, sodium caseinate, dipotassium phosphate, silicon dioxide, sunflower lecithin, tocopherols	●							●
VitalBlend™ Nutra Base NPH *19096-NPH-40*	Sunflower	52%	42%	High oleic sunflower oil, sodium caseinate, mono- and diglycerides, dipotassium phosphate, silicon dioxide, soy lecithin, tocopherols	●	●						
Jerzee™ Whip 65-Sunflower NT *176620*	Sunflower	65%	10%	Sunflower oil,maltodextrin, sodium caseinate, sugar, propylene glycol monoesters, acetylated monoglycerides, mono and diglycerides, natural tocopherols, silicone dioxide			●				●	
Centennial™ 73-Sunflower *178630*	Sunflower	73%	4%	Sunflower oil, corn syrup solids, sodium caseinate, mono & diglycerides, sodium silico alluminate	●	●	●	●				
Centennial™ IX Sunflower *178623*	Sunflower	75%	0%	Sunflower oil, modified food starch, maltodextrin, sodium aluminosilicate as anti-caking agent, natural tocopherols	●	●		●				
VitalBlend™ Sunflower IP *178651-50*	Sunflower	75%	6%	High oleic sunflower oil, inulin, sodium caseinate, sunflower lecithin, silicon dioxide, mixed tocopherols	●	●	●	●				●

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Beverages Savory Bakery/Dessert Snacks/Cereals Hot Liquid - Soluble Cold Liquid - Soluble Dessert/Whipped Topping Nutritional Powder

Texturants & Excipients

Balchem Product Name *SKU*	Features & Benefits	Key Ingredients
Insta-Thick® Xanthan *5010009EA*	A unique form of xanthan gum specially processed to provide an instant dispersion, dissolution, and very rapid generation of viscosity.	Xanthan gum
Insta-Thick® CMC (9M) *5010137EA*	A medium-viscosity cellulose gum specially processed to provide instant dispersion and/or dissolution.	Sodium carboxymethyl cellulose
Insta-Thick® Guar *5010138EA*	A unique form of guar gum specially processed to provide rapid dispersion, dissolution, and very rapid generation of viscosity.	Guar gum
Insta*Rice Trin *5010139EA*	A unique form of rice maltodextrin specially processed to provide instant dispersion and dissolution. May also be used as a carrier for high-intensity sweeteners.	Rice maltodextrin
Insta-Thick® C-15L *5010145EA*	A unique combination of milk reactive lambda carrageenan gum and 18 DE corn maltodextrin specially processed to provide instant dispersion, dissolution, and very rapid generation of viscosity.	Maltodextrin, carrageenan, dextrin
Insta-Thick® G2X-10 *5010146EA*	A unique thickening agent, specially processed to provide instant dispersion, dissolution, and a very rapid generation of viscosity.	Corn maltodextrin, guar gum, xanthan gum
Insta-Thick® X-10 Non-GMO *5010148EA*	A unique thickening agent, specially processed to provide instant dispersion, dissolution, and a very rapid generation of viscosity.	Maltodextrin, xanthan gum
Vis*Quick® 11 *5010149EA*	A co-agglomeration of xanthan gum and guar gum that takes advantage of synergistic viscosity development to mimic xanthan gum.	Xanthan gum, guar gum
Vis*Quick® 21 *5010150EA*	A co-agglomeration of guar gum and xanthan gum that takes advantage of synergistic viscosity development to mimic xanthan gum.	Guar gum, xanthan gum
Insta*Starch® 10-70 SH *5010237EA*	A unique form of pre-gelled modified tapioca starch and 10 DE corn maltodextrin, specifically processed for rapid generation of viscosity.	Modified tapioca starch, maltodextrin, palm oil, mono- and diglycerides, propylene glycol, citric acid, green tea and rosemary extract
Insta*Potato® Low Aw *5010201EA*	A creamy, soluble, potato maltodextrin for rapid dispersion and increased viscosity. It may also be used as an excipient in sports nutrition or dietary supplement products or as a carrier for high-intensity sweeteners.	Potato maltodextrin
Insta*Rice Trin LWA - S *5010461EA*	A unique form of rice maltodextrin specially processed to provide instant dispersion. May be used where low-water activity nature is desired.	Rice maltodextrin
Insta Inulin LWA *5010486EA*	A low-water activity powdered food ingredient based on chicory inulin with a high level of oligofructose and may be used where low-water activity nature is desired.	Chicory root fiber
Insta Isomalt LWA *5010496EA*	A low-water activity powdered food ingredient mixture of hydrogenated saccharides and may be used where low-water activity is desired.	Isomalt

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Extruded and Texturized Protein

Z-Crisps® and **Z-Texx™** from Balchem are made with a variety of plant and dairy-based proteins. Crisps with small dimensions can be used as is or to boost protein and texture. Our larger snack forms can be used as a ready-to-flavor, protein-centric products.

Create something wonderful with our portfolio of convenient and innovative solutions for a variety of applications.

SKU	Product Description	Size	Ingredient Listings
Crisps: Cylindrical Shape			
80503F	70% Whey Protein Mini Crisps	2-4mm	Whey Protein Isolate, Whey Protein Concentrate, Tapioca Starch, Calcium Carbonate, Sunflower Lecithin
80874F	70% Whey Protein Cocoa Mini Crisps	2-4mm	Whey Protein Isolate, Whey Protein Concentrate, Tapioca Starch, Cocoa Powder, Calcium Carbonate, Sunflower Lecithin
80402F	60% Pea Protein Crisps	3-4mm	Pea Protein Isolate, Pea Starch, Rice Flour, Calcium Carbonate
80652F	60% Pea Protein w/Tapioca Starch Crisps	3-4mm	Pea Protein Isolate, Tapioca Starch, Rice Flour, Calcium Carbonate
80819F	70% Pea Protein Crisps	3-4mm	Pea Protein, Tapioca Starch, Calcium Carbonate
80787F	60% Pea Protein Cocoa Crisps	3-4mm	Pea Protein Isolate, Tapioca Starch, Cocoa Powder, Rice Flour, Calcium Carbonate
80932F	60% Pea & Hemp Protein Crisps	3-5mm	Pea Protein, Hemp Protein Concentrate, Tapioca Starch, Brown Rice Flour, Calcium Carbonate
80512F	60% Organic Pea Protein Crisps	3-5mm	Organic Pea Protein and Organic Rice Starch
80765F	60% Pea-Brown Rice Protein Crisps	3-6mm	Pea Protein/Brown Rice Protein, Tapioca Starch, Calcium Carbonate
80886F	60% Pea Protein Crisps	3-6mm	Pea Protein, Rice Starch
80752F	60% Whey Protein Crisps	4-5mm	Whey Protein Concentrate, Rice Flour, Tapioca Starch, Calcium Carbonate, Organic Sunflower Lecithin
80481F	60% Whey Protein Crisps	4-5mm	Whey Protein Isolate, Whey Protein Concentrate, Rice Flour, Tapioca Starch, Calcium Carbonate, Sunflower Lecithin
80950F	70% Whey Protein Crunch	4-5mm	Whey Protein Concentrate, Tapioca Starch, Calcium Carbonate
80241F	70% Whey Protein Crisps	4-5mm	Whey Protein Isolate, Whey Protein Concentrate, Tapioca Starch, Calcium Carbonate, Sunflower Lecithin
80450F	70% Whey Protein Cocoa Crisps	4-5mm	Whey Protein Isolate, Whey Protein Concentrate, Tapioca Starch, Cocoa Powder, Calcium Carbonate, Sunflower Lecithin
80608F	80% Whey Protein Crisps	4-6mm	Whey Protein Isolate, Tapioca Starch, Calcium Carbonate, Sunflower Lecithin
Crisps: Flat Disk Shape			
80774F	60% Pea Protein Disks	4–5mm	Pea Protein, Tapioca Starch
80846F	70% Whey Protein Disks	4–5mm	Whey Protein Isolate, Whey Protein Concentrate, Tapioca Starch, Calcium Carbonate, Sunflower Lecithin
80847F	70% Whey Protein Cocoa Disks	4–6mm	Whey Protein Isolate, Whey Protein Concentrate, Tapioca Starch, Cocoa Powder, Calcium Carbonate, Sunflower Lecithin
Snack: Chip Shape			
80461WP	Whey Protein Gluten Free Thins	25x25mm	Whey Protein Concentrate, Brown Rice Flour, Calcium Carbonate
80379WP	Pea Protein Wavy Chip Base	25x25mm	Pea Protein Isolate, Dehydrated Potato, Potato Starch, Calcium Carbonate, Salt
80270WP	Pea Protein Chip Base	12x28mm	Pea Protein Isolate, Dehydrated Potato, Potato Starch, Salt, Calcium Carbonate
Snack: O-Shape			
80252WP	60% Soy Protein Cocoa O's Base	5-6mm	Soy Protein Isolate, Soy Flour, Soy Protein Concentrate, Rice Flour, Cocoa Powder
80056WP	60% Soy Protein O's Base	5-6mm	Soy Protein Isolate, Soy Flour, Soy Protein Concentrate, Rice Flour
Snack: Crinkle Cut Shape			
80220F	Soy Protein Zippers	6-10mm	Soy Protein Isolate, Dehydrated Potato, Potato Starch, Soy Flour, Calcium Carbonate
Texturized Crumbles: Shreds			
80933F	Z-Texx™ Organic Pea Protein Texturized Shred	varies	Organic Pea Protein and Organic Pea Starch

Encapsulated Ingredients & Enabling Technologies

	Preservatives	Acidulants	Salt	Chemical Leavening	Sugar	Choline Chloride
Clean Label		■	■	■	■	■
Reduced Sodium		■		■		■
Mold Inhibition in Baked Goods	■					
pH Control/Shelf Life Extension in Baked Goods	■	■				
Prolonged Frozen Shelf Life of Baked Goods				■		
Prolonged Shelf Life of Sanded Candies		■			■	
Sourdough Flavor		■				
Longer-Lasting Flavor in Chewing Gum		■				
Starter Culture Replacement in Meat Products		■				
pH Reduction in Meat Products		■				
Improved Texture of Meat Products			■			
Eliminated or Reduced Syneresis in Meat Products		■	■			
Freeze Point Suppression					■	

MeatShure®

Salt (sodium chloride) is commonly used as a functional ingredient in processed meats, as a flavoring in seasonings, and as a means of preservation. **MeatShure®** encapsulated salt helps control bind and syneresis, reduces protein extraction, and delays the onset of oxidative rancidity during shelf life. The use of MeatShure encapsulates helps to optimize high-speed forming operations by preventing salt-soluble proteins from accumulating on equipment. This reduces patty adhesion and malformation, and reduces cleaning delays, all while increasing process yield. From a sensory aspect, it improves mouthfeel and allows the meat to be less chewy and elastic.

PRODUCTS: Sodium Chloride

MeatShure®

MeatShure® Acidulants / pH Reducers

MeatShure® encapsulated acidulants are used to control pH, develop acidic flavor profiles and increase process efficiency in ready-to-eat meats. MeatShure acids can be used as an alternative to traditional fermentation methods, allowing the acid to be directly mixed into the meat emulsion without negatively impacting the meat proteins or breaking the emulsion itself. The encapsulated acidulants are subsequently released from the coating by the combined effects of heat and moisture, lowering pH and delivering desired flavor profiles.

PRODUCTS:

- Citric Acid
- Lactic Acid
- Glucono-delta-lactone
- Vinegar Flavored Powder

MeatShure® Meat Restructuring

MeatShure restructuring technology enables controlled gelation binding in restructured meat products and maximizes the value of meat trimmings. Our encapsulated calcium lactate works in conjunction with alginates to provide freeze/thaw stable meat binding.

PRODUCTS: Calcium Lactate

ConfecShure®

ConfecShure®

Balchem specializes in the development and delivery of encapsulated solutions to top confectionery manufacturers. We provide a unique blend of technical expertise and problem-solving support, enabling you to achieve your goals. **ConfecShure®** encapsulated ingredients let you control the release of acid using our proprietary microencapsulation technology. We protect ingredients from degradation and pre-reaction, strategically delivering them for optimum performance.

PRODUCTS:

- Citric Acid
- Lactic Acid
- Malic Acid
- Tartaric Acid

BakeShure®

BakeShure® microencapsulated leavening agents provide full control of the reaction between sodium bicarbonate and the acidic components within dough and batter, improving baked product yield and appearance. Microencapsulation prolongs the shelf life of frozen, fresh and refrigerated bakery products.

PRODUCTS:

- Monocalcium Phosphate
- Sodium Bicarbonate
- Sodium Aluminium Phosphate

BakeShure® Clean

BakeShure® Clean is our clean label category of baking powders and shelf life extenders. It is suitable for bakery product applications including fresh, frozen and refrigerated. The **BakeShure Clean** line of products are not formulated with aluminum-containing raw materials, have reduced sodium content, and won't necessitate USDA BE labeling.

PRODUCTS:

- BakeShure® Complete
- BakeShure® Complete Advantage
- BakeShure® Free

BakeShure® Sours / Acidulants

BakeShure® Sours make it possible to produce authentic specialty sourdough bread by delivering superior sourdough flavor. Using our 'drop-in' technology, Balchem's proprietary microencapsulation technology allows manufacturers to easily create new sourdough formulas without the need of fermentation resulting in reduced production time. Since **BakeShure Sours** do not release until the final stages of baking, formulators using this technology see improved color, greater loaf volume and better finished product appearance, all while simplifying the production process.

PRODUCTS:

- Sourdough Blend
- Citric Acid
- Fumaric Acid
- Malic Acid
- Lactic Acid

BakeShure® Preservation & Shelf Life

Microencapsulation is an effective way to maximize the quality and mold-free shelf life of bakery products. Balchem's proprietary controlled-release technology minimizes the unwanted side effects of highly reactive food acids and preservatives during the baking process. With **BakeShure® Preservation** technology, you can prevent protein degradation, improve yeast activity, boost product consistency, optimize production and launch new products you previously thought impossible, while achieving the desired shelf life.

PRODUCTS:

- Sorbic Acid
- Calcium Propionate
- Citric Acid
- Malic Acid
- Fumaric Acid

C-Salt

Generally Recognized as Safe (GRAS) salt substitute. However, its characteristic hygroscopicity has ruled it out as a truly viable solution for reduced-sodium food product development – until now. Moisture uptake and clumping are problems of the past with Balchem **C-Salt**, a choline chloride-based salt replacer with significantly improved flow characteristics. This new functionality of choline chloride makes it usable in blends of dry bakery ingredients and savory seasonings.

PRODUCTS:

- C-Salt – Choline Chloride

Flavor, Color & Texture

Balchem's INhance™ Inclusions

Balchem is a market leader in the manufacture of lipid-based inclusions. **INhance™** Inclusions are functional ingredients that help protect and deliver flavor, aroma, color and texture to a variety of end-use applications. These fat-based inclusions are designed to be easily incorporated into food products and only release their functional components once the melt point of the fat is achieved. These are a convenient and cost-effective method for delivering new flavors, aromas and colors. This is especially important in creating limited-time offerings, limited editions, and carrying forth a flavor or theme to your product.

INhance™ Inclusions *GLIMMER*™
INhance™ Inclusions *GOOEY*

Our newest addition, ***GLIMMER™*** inclusions add ribbons of glittery, shimmery color and flavor in your baked goods. These unique inclusions are even better than using edible glitter – they are easier to see, stay within their ribbon of color, are bolder and more impactful. Customizable for color, flavor and some ingredient labeling. ***GOOEY*** is our line of inclusions that allow you to create a gooey, stringy appearance and mouthfeel (think marshmallow).

INhance™ Inclusions *HARVEST*
Fruit, Vegetable & Spice Inclusions

Working with real spices, fruits and vegetables in baked goods and other food products has its challenges: frozen storage and handling, inconsistent supply, price volatility, and natural variations in flavor, color and quality. Balchem inclusions offer a convenient way to add a burst of spice, fruit flavor, or vegetable flavor to a variety of baked goods without the challenges of working with real fruits and vegetables. They deliver enhanced flavor and aroma, offer easy handling and incorporation into batters and mixes, add authentic visual cues and visual impacts, require no refrigerated storage. They are available using natural flavors, non-certified colors and other customizations to meet your unique requirements.

INhance™ Inclusions *SAVORY* &
INhance™ Inclusions *PLANTED*
Meat, Dairy & Plant-Based Inclusions

Deliver delicious meat and dairy flavors to your baked goods and create unique flavor combinations. With our plant-based inclusions, you can offer the taste of real cheese and real meat to consumers who want the taste but prefer non-animal sources, even occasionally.

INhance™ Inclusions *INDULGENT*

Our ***INDULGENT*** line brings comfort and warmth to bakery products. These inclusions deliver enhanced flavor and aroma. Think warm flavors like cinnamon, maple, and vanilla to bring out the indulgence you have come to enjoy.

INhance™ Inclusions *FREE*

Clean labeling influences food service and retailers. Retail leaders are meeting consumer expectations by eliminating select ingredients. Our ***FREE*** line offers an array of "free from" products – free from sugar, nut allergens and soy.

INhance™ inclusions

Flavor & Sensory Systems

We provide customized ingredient systems that help you bring innovative products to market faster. Our systems provide ease of use for you, so your customers get a consistent product every time it goes out the door.

- KALVA® Dip Coatings
- INhance™ Variegates
- INhance™ Textured Variegates
- INhance™ Low-Melt Inclusions
- INjoy™ Flavor Systems
  - Chocolate Dairy Powders
  - Milk Flavor Bases
  - Eggnog Flavor Bases
  - Smoothie Bases
  - Shake Bases
  - Juice Bases
  - Flavored Teas
  - Ice Cream Flavor Bases
  - Frozen Dessert Flavor Bases
  - Functional Beverage Bases & Flavor Systems

INhance™ variegates

INJoy™ flavor systems

KALVA®

We thank you for taking time and allowing us to share who we are and what we value. We hope we have inspired you to *think differently* about Balchem. Engage with us in support of your growth.

To get started, scan the QR code or visit:
balchem.com/human-nutrition-health

Come grow with us so that we can solve today
to shape a better tomorrow – together.

To find the right product for your application, contact us today.

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HUMAN NUTRITION & HEALTH

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