

# Powered by ingredients

Accelerating pharmaceutical innovations of today to power more healthy tomorrows





### **Powered by Ingredients**

from our premier supplier partners

Solve your formulation challenges with high-quality ingredients and innovations from our industry leading supplier partners for diverse pharmaceutical applications.

	■ BASF We create chemistry	BISSPECTRA Bulk cGMP Fine Chemical Manufacturer	NKY PHARMA
CHEMI Nutra	Domino.  Since 1901	Dow	<b>∢OUPONT</b> ≥
@ Genu-in°	GRACE	Ingredion Pharma Solutions	<b>&amp;Innophos</b>
Jungbunzlauer	KERRY	LANXESS	Maccu
Mallinckrodt Pharmaceuticals	Particle Dynamics Particle Processing   Delivery Technologies   Dose Manufacturing	<b>Sensus</b>	SEQENS
	Siegfried	SIGACHI <sup>®</sup>	₹ Tedia

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- Redefining Distribution

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- Pharmaceutical Ingredient Lab Services
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  innovation in life science markets.
- Prototypes Powered by Ingredients
  Innovative formulations for diverse dosage
  formats featuring high-quality ingredients
  and pharmaceutical innovations from
  industry leading suppliers.
- Solutions for Oral Solid Dosage and Topicals

  Explore key products from our diverse pharmaceutical ingredient portfolio.
- Solutions for Transdermal, Parenterals,
  Ophthalmic, Liquids, and Beyond!
  From clinical trials to mass commercialization,
  Univar Solutions is proud to deliver one of the
  most expansive pharmaceutical portfolios of
  solvents, excipients, APIs, and bioprocessing
  ingredients in the world.













### POWERING HEALTHY TOMORROWS

### **Redefining Distribution**

for the pharmaceutical industry

With one of the most expansive product portfolios of **technical grade and high-purity solvents**, **excipients**, **APIs**, **and bioprocessing ingredients** combined with innovative and custom supply chain solutions, Univar Solutions is proud to answer when reliability, scale, and security of supply are the most critical factors.

With 15,000+ products from more than 400 suppliers around the world, we have the ingredients you need for all drug delivery dosage forms, prescriptions, and over-the counter medicines:

- · Oral solid dose
- Oral liquid dose
- Semi-solid

- Topical
- Transdermal
- Nasal

- Parenteral
- Inhaled
- Ocular

#### **Global Distribution Network**



#### 600+ facilities

spanning 31 countries worldwide



#### 400+ partnerships

with premier brand suppliers



#### 2,400+ global

pharmaceutical manufacturing and CDMO customers



#### 2,500+ railcars

and nearly 90 million gallons of bulk storage capacity



#### 3,700+ private fleet

of tractors, trailers, and tankers providing flexible inventory and delivery alternatives



#### **15,000+ products**

in a diverse portfolio of solvents, excipients, APIs, and bioprocessing ingredients

# Comprehensive Pharmaceutical Ingredient Portfolio

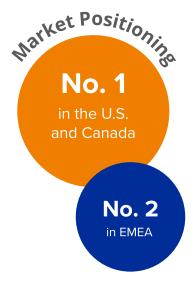
Univar Solutions serves primary and secondary pharmaceutical markets:

- Biopharmaceutical
- Drug synthesis
- Medical device
- Ophthalmic
- Animal health

- Nutraceutical
- Dental
- CBD
- Diagnostics

Offering a vast portfolio of raw materials and specialty ingredients:

- High-purity and technical grade solvents
- Active phamaceutical ingredients (API)
- Active nutraceutical ingredients (ANI)
- Excipients
- Bioprocessing ingredients







### **Pharmaceutical Ingredient Lab Services**

Accelerating innovation in life science markets

#### Physical property measurements:

- Chemical characterization and analysis
- Pre-formulation, formulation, and specification development for topicals, semi-solids, capsules, liquids, and oral solid tablets
- Sample and prototype batch development
- Benchtop batch capabilities
- Scale-up technical support with machinery and processes
- Raw material evaluation for enhanced performance
- Product benchmarking, testing, and sourcing to match benchmarks and regulations
- Product analysis (pH, hardness, viscosity, rheology, odor, color, appearance)

#### Performance and application testing:

- Quality control method development and testing in accordance with USP (disintegration, dissolution, weight variation)
- Particle size analysis
- Potency and assay
- Product packaging compatibility
- Tablet friability testing
- Coatings testing and troubleshooting



### **Powering Healthy Tomorrows**

# High-quality ingredients and pharmaceutical innovations for diverse dosage formats

Discover the unique formulation capabilities of ingredients designed with innovations of today to power more healthy tomorrows:



# Daily Hydration Support Effervescent Tablet

Refreshing, quick dissolve effervescent tablets with high bioavailability potassium, high potency magnesium, and sodium.



# Healthy Hair, Skin, and Nails Powder

Highly absorbable powder blend of collagen peptides, vitamins, minerals, and micro-elements essential for the overall health of hair, skin, and nails.



#### Skin Restore Scar Treatment Gel

This restorative scar gel formulation features a silicone elastomer blend to achieve a non-occlusive silky smooth sensory profile while protecting skin against harmful UV rays.



# Energy Boost and Metabolism Capsule

Boost energy levels, spark metabolism, improve mitochondrial function, and regenerate essential vitamins with this highly absorbable and easy-to-consumer antioxidant capsule.



# Prenatal Health, Energy, and Immunity Capsule

Highly absorbable iron combined with essential vitamins and minerals including choline chloride, folic acid, Vitamins C and D, and zinc for optimal health of mother and baby.



# Gut Health and Digestion Chewable Tablet

Highly absorbable chewable tablet that delivers one gram of fiber per tablet with a sweet, natural taste and desirable mouthfeel.















# Daily Hydration Support Effervescent Tablet

Refreshing, quick dissolve effervescent tablets with high bioavailability potassium, high potency magnesium, and sodium.

CATEGORY	INGREDIENT	% BY WEIGHT	TRADE NAME	SUPPLIER	FUNCTION AND BENEFITS
Active	Tripotassium Citrate Monohydrate (TPC)	8.12%	Tripotassium Citrate Monohydrate (TPC)	Jungbunzlauer	Boasting significantly higher bioavailability, these actives are materials of choice for formulators. These essential minerals are
Active	Trimagnesium Citrate (TMC)	15.15%	Trimagnesium Citrate (TMC)	Jungbunzlauer	known to regulate fluid balance, maintain blood pressure and blood glucose, reduce muscle contractions, improve bone health, and play a pivotal role in energy production.
Active	Sodium Sulphate	7.01%	Sodium Sulphate Anhydrous	Macco Organiques, s.r.o.	Help regulate fluid and blood volume, support nerve function, maintain normal heart rhythm, and beyond.
СРМЕ	Citric Acid and Sodium Bicarbonate Effervescent Compound	43.18%	CITROCOAT® EP	Jungbunzlauer	Ready-to-use effervescent compound with excellent compressibility, which brings together citric acid and sodium bicarbonate to create a highly reactive but storage-stable effervescent powder.
СРМЕ	Dicalcium Phosphate Dihydrate	13.37%	Di-Tab®	Innophos	Multi-functional excipient (CPME) delivering superior dissolution, binding, compressibility, and texture while adding the benefits of calcium and phosphorous minerals.
Excipient	Copovidone (VA64)	1.70%	KoVidone® VA64 and VA64F	BOAI NKY	Coarse powders that provide dust-free handling, excellent flowability, good binding properties, and faster extruder feeding.
Excipient	Flavored Flowing Powder	2.27%	Natural Berry Lemonade Type FL SD	Kerry	Refreshing berry lemonade flavor provides taste masking properties and leaves a desirable taste for patient compliance.
Excipient	Silicon Dioxide	2.05%	Syloid® 244 FP	Grace	Unique flow agent that allows for optimal uniformity, friability, and hardness while protecting against moisture uptake.
Excipient	Magnesium Stearate	2.05%	Magnesium Stearate	SpecGx, a Mallinckrodt company	Multi-functional excipient delivering fewer product rejects and less manufacturing downtime. High quality pharmaceutical grade (Hyqual™, Stear-O-Wet™) and food grade stearates available.
Excipient	Spray Dried Mannitol	5.11%	MANNITAB™ SD2	Ingredion	Widely used polyol, which serves as a free flowing filler, binder, and sugar-free clean tasting sweetener.



#### MANUFACTURING STEPS

- 1 Mixture A: Weigh actives (magnesium, potassium, and sodium sulphate) in appropriate containers and mix gently to combine the ingedients
- Mixture B: Weigh each CPME and excipient in a separate container and then mix manually in the order provided
- 3 Homogenize Mixture A with Mixture B using speedmixer
- 4 Measure the tapped density to calculate Hausner ratio
- 5 Load mixture onto tableting machine with 18 mm die to manufacture tablets

Tableting Machine | Korsch STYL'One Nano

PROPERTIES	
Appearance	White
Shape	Round
Odor	Berry lemonade
Hardness	50-60N
Disintegration time	Less than 15 minutes
Friability	<1%
Weight	1600 mg per tablet



# Healthy Hair, Skin, and Nails Powder

Highly absorbable powder blend of collagen peptides, vitamins, minerals, and micro-elements essential for the overall health of hair, skin, and nails.

CATEGORY	INGREDIENT	% BY WEIGHT	TRADE NAME	SUPPLIER	FUNCTION AND BENEFITS
Active	Bovine Collagen Peptides	81.88%	Genu-in Life Collagen Peptide	Genu-in	Designed to improve skin hydration and elasticity while reducing the appearance of wrinkles, relieving pain, and improving joint function in individuals living with osteoarthritis.
Active	Calcium Chloride	3.70%	Calcium Chloride Dihydrate	Macco Organiques, s.r.o.	High potency calcium chloride helps to increases bone density and prevents bone loss.
Active	Biotin	0.09%	D-Biotin	dsm-firmenich	D-Biotin is a vitamin ingredient essential for healthy looking skin, hair, and nails. It improves the quality of keratin structures and therefore has a positive effect on hair and nail strengthening, hair cell creation, and DNA repair.
Active	Vitamin B9 (Folic Acid)	0.10%	Quali®-B Vitamin B9, Folic Acid	dsm-firmenich	Serves as an essential nutrient promoting hair, skin, and nails health as well as overall support for bone and mind health. dsm-firmenich provides reliable, high-quality forms of vitamin B9 that can be formulated for a variety of applications.
Active	Vitamin B12	0.01%	Quali®-B Vitamin B12 1% SD	dsm-firmenich	B12 is a water-soluble vitamin impacting the metabolism of every cell of the human body to include moisturizing skin, promoting hair growth, maintaining collagen levels, reducing inflammation and wrinkles, and promoting cell regeneration.
Excipient	Tagatose	9.99%	Tagatose	Domino® Sugar	Rare, low calorie sugar that helps to achieve low glycemic index while providing a sweet, natural taste for consumers.
Excipient	Silicon Dioxide	2.00%	Syloid® 244 FP	Grace	This flow agent helps achieve optimal uniformity, friability, and hardness while protecting against moisture uptake.
Excipient	Citric Acid	1.25%	Citric Acid Anhydrous	Jungbunzlauer	Citric acid and malic acid work together as preservatives
Excipient	Malic Acid	1.00%	Malic Acid Crystal	Bartek Ingredients	and to ensure flavor protection.
TOTAL		100.0%			

- Mixture A: Weigh actives (collagen peptides, biotin, calcium chloride,
- 1 folic acid, vitamin B12) in appropriate containers and mix gently to combine the ingedients
- 2 Mixture B: Weigh each excipient in a separate container and then mix manually in the order provided
- 3 Homogenize Mixture A with Mixture B using speedmixer
- 4 Measure the powder flow properties using the TD2

PROPERTIES	
Appearance	Half white free flowing powder
Odor	Odorless
Flow Property	Fair
Weight	4 g per sachet





### Skin Restore Scar Treatment Gel

This restorative scar gel formulation features a silicone elastomer blend to achieve a non-occlusive silky smooth sensory profile while protecting skin against harmful UV rays

CATEGORY	INGREDIENT	% BY WEIGHT	TRADE NAME	SUPPLIER	FUNCTION AND BENEFITS
Active	Ethylhexyl Methoxycinnamate	7.50%	Parsol® MCX	dsm-firmenich	Active that functions as a solubilizer for enhanced skin protection against UV rays.
Active	Octocrylene	8.50%	Parsol® 340	dsm-firmenich	Parsol® 340 is an excellent photostabilizer for the Parsol® 1789.
Active	Ethylhexyl Salicylate	5.00%	Parsol® EHS	dsm-firmenich	UVB absorber to heighten treatment benefits of your formulation resulting in greater customer satisfaction.
Active	Butyl Methoxydiben- zoylmethane	3.00%	Parsol® 1789	dsm-firmenich	Serves as a broad spectrum UVA absorber for organic sunscreen formulations and beyond.
Active	Tributyl Citrate	3.25%	CITROFOL® B1	Jungbunzlauer	Coming from one of world's leading producers of biodegradable ingredient of natural origin, this consistent, high-quality excipient, and skin emollient reduces polymer hardness and lowers glass transition temperature.
Excipient	Stearyl Alcohol	9.75%	ADOL® 62 NF	Cremer	ADOL® 62 NF is an NF grade palm derived Stearyl Alcohol by Cremer North America. It has a higher saponification value maximum of 2.0 than ADOL® 61 NF of 1.0, making it better suited for this gel application
Excipient	Microcrystalline Cellulose (MCC) Wax	4.00%	CW-8030K	Calumet	This specialty wax product functions as an excellent processing aid for pharmaceutical and personal care topical applications.
Excipient	Liquid Polyethlene Glycol (PEG)	4.00%	CARBOWAX™ SENTRY™ PEG 300	Dow	This water soluble polymer from Dow with excellent solvency is widely used as an excipient in liquid and semi-solid formulations and is compliant with USP/NF and Ph. Eur. monographs.
Excipient	Dimethicone and Dimethicone Crosspolymer	50.00%	Liveo™ TE-9320 Silicone Elastomer Blend	DuPont™ Liveo™	This elastomer blend is a prime choice for topical formulations due to excellent rheology modication and emulsion-free thickening for anhydrous gels.
Excipient	Caprylyl Methicone	5.00%			This multi-functional excipient serves as a spreading agent, dispersant for hydrophobic powder, and a compatibilizer for silicone with organic oil.
TOTAL		100.0%			-



- Mixture A: Weigh Parsol® 1789 powder and dissolve with Parsol® MCX, Parsol® EHS, and Parsol® 340 to form a smooth paste
- 2 Mix at 1200 RPM with speedmixer for two minutes
- 3 Melt CW-8030K wax to 45°C and allow to cool
- 4 Once cooled, mix in CARBOWAX SENTRY PEG 300, CITROFOL B1, and ADOL 62 NF
- Heat at 85-90°C to obtain clear mixture and allow to cool
- Once cooled, mix in remaining ingredients (Liveo TE-9320™ and caprylyl methicone) at 1200 RPM with speedmixer for two minutes

PROPERTIES	
Appearance	White
Texture	Smooth
Viscocity at 25°C	750,000 cP
Fill volume	10 mL



# Energy Boost and Metabolism Capsule

Boost energy levels, spark metabolism, improve mitochondrial function, and regenerate essential vitamins with this highly absorbable and easy-to-consumer antioxidant capsule.

CATEGORY	INGREDIENT	% BY WEIGHT	TRADE NAME	SUPPLIER	FUNCTION AND BENEFITS
Active	Riboflavin Vitamin B2	1.15%	Descote® Riboflavin 33.3%	Particle Dynamics	Essential for the normal metabolic activities of pancreatic $\beta$ -cells and provides protection against oxidative stress.
Active	Vitamin B6	0.48%	Pyridoxine Hydrochloride Ph	dsm-firmenich	Plays an important role in helping the body metabolize fats and protein, better converting food into energy.
Active	Caffeine Anhydrous	5.97%	Caffeine Anhydrous	Siegfried	Used as stimulant to boost energy levels in oral solid, oral liquid, or topical forms.
Active	Iron Protein Succinylate (IPS)	15.93%	IronAid®	Chemi Nutra	IronAid® iron compound combines the high absorption of ferrous sulfate with the gentleness of ferric salts. In this formulation, iron supports mitochondrial function, oxygen transport, and cellular respiration.
Active	Glutathione	35.84%	Setria® Glutathione	Kyowa Hakko	Promotes healthy aging, metabolic spark, and immune response by regenerating oxidized Vitamin C back to its active form and supporting enzymes crucial for detoxification.
Excipient	Corn Starch	17.92%	UNI-PURE® F	Ingredion Pharma Solutions	Extra-white multi-compendial native starch that can serve as a filler (NMT 15% moisture and inhibits the caking of hygroscopic materials).
Excipient	Microcrystalline Cellulose (MCC)	17.92%	HiCel™ 90	Sigachi®	HiCel™ is a spray dried direct compressible form of MCC and is available in several grades varying in average particle size, moisture content, and bulk density.
Excipient	Silicon Dioxide	4.78%	Syloid® 244 FP	Grace	This flow agent helps achieve optimal uniformity, friability, and hardness while protecting against moisture uptake
Capsule	Hard Color Capsule, #0, Clear		HPMC Capsule, Healsee	SD Head USA	These tasteless, odorless, and easy to swallow vegetarian and vegan capsules are made from pure HPMC and offer superior quality and performance.
TOTAL		100.0%			

- Mixture A: Weigh actives (vitamin B2, vitamin B6, caffeine, iron protein
  succinylate, glutathione) in appropriate containers and mix gently
  to combine the ingedients
- 2 Mixture B: Weigh each excipient in a separate container and then mix manually in the order provided
- 3 Homogenize Mixture A with Mixture B using speedmixer
- 4 Measure the powder flow properties using the TD2
- 5 Fill each empty hardshell capsule with 350 mg of powder using profiller

PROPERTIES	
Appearance	Light pink powder in clear hard shell capsule
Size	#0 hard shell capsule
Powder properties	Fair
Disintegration time	Less than 15 minutes





# Prenatal Health, Energy, and Immunity Capsule

Highly absorbable iron combined with essential vitamins and minerals including choline chloride, folic acid, Vitamins C and D, and zinc for optimal health of mother and baby.

CATEGORY	INGREDIENT	% BY WEIGHT	TRADE NAME	SUPPLIER	FUNCTION AND BENEFITS
Active	Vitamin C	17.27%	Ascorbic Acid	dsm-firmenich	Water-soluble nutrient promoting normal function of the immune system and anti-oxidant capabilities, as well as aiding in iron absorption and collagen formation for the function of bones, teeth, skin, heart, and gums.
Active	Choline Chloride	17.37%	Choline Chloride	Balchem	Provides high choline cation load and dissolves rapidly in digestive system, making it an excellent choice for providing the free choline mother and baby need for brain health, liver function, and overall well-being.
Active	Zinc Oxide	3.56%	Zinc Oxide	Univar Solutions	Zinc is an essential mineral required for a wide range of cellular metabolic activities and plays vital roles in regulating the catabolic activities of several enzymes and increasing immune functions.
Active	Vitamin D3	0.21%	Quali®-D Dry Vitamin D3 Type 100 CWS	dsm-firmenich	Vitamin D3 helps the body maintain and utilize the calcium and phosphorus needed to build strong bones and teeth.
Active	Polysaccharide Iron Complex (PIC)	4.51%	Polysaccharide Iron Complex (PIC) 46% Fine Powder	Particle Dynamics	PIC 46% Fine Powder is a high potency black to black-brown fine powder encapsulated for masking bitter taste.
Active	Vitamin B9 (Folic Acid)	1.04%	Quali®-B Vitamin B9, Folic Acid	dsm-firmenich	Vitamin B9 is an essential nutrient for a healthy pregnancy and neural tube development. DSM provides reliable, high-quality forms that can be formulated for diverse applications.
Active	Vitamin B12	0.08%	Quali®-B Vitamin B12 1% SD	dsm-firmenich	Vitamin B12 is a water-soluble vitamin that is involved in the metabolism of every cell of the human body. In this application, it is important for cognitive development and the prevention of neural tube defects.
Excipient	Microcrystalline Cellulose (MCC)	51.82%	HiCel™ 90	Sigachi®	HiCel <sup>™</sup> 90 has excellent compactibility and binding characteristics due to a higher surface area as well as improved lubrication properties resulting in blend homogeneity, content uniformity, increased production capacity, smaller tablet size, and shorter disintegration time.
Flavor	Flavored Flowing Powder	2.07%	Natural Berry Lemonade Type FL SD	Kerry	Deliver nutritional excellence, improved patient compliance, and a best-in-class taste experience with with refreshing, natural, and authentic flavor innovations.
Excipient	Silicon Dioxide	2.07%	Syloid® 244 FP	Grace	This flow agent helps achieve optimal uniformity, friability, and hardness while protecting against moisture uptake.
Capsule	Hard Color Capsule, #0, White		HPMC Capsule, Caps-Healsee	SD Head USA	Vegetarian and vegan capsules made from pure hydroxypropyl methylcelluolose. With the world's first vertically-integrated manufacturing method, SD Head USA ensures rigorous quality control and efficient production.
TOTAL		100.0%			



- Mixture A: Weigh actives (vitamin C, vitamin D3, choline, zinc oxide, PIC,
- 1 folic acid, vitamin B12) in appropriate containers and mix gently to combine the ingedients
- Mixture B: Weigh each excipient in a separate container and then mix manually in the order provided
- 3 Homogenize Mixture A with Mixture B using speedmixer
- 4 Measure the powder flow properties using the TD2
- 5 Fill each empty hardshell capsule with 350 mg of powder using profiller

PROPERTIES	
Appearance	Pale yellow and grey powder in white hard shell capsule
Size	#0 hard shell capsule
Powder properties	Fair
Disintegration time	Less than 15 minutes



# Gut Health and Digestion Chewable Tablet

Highly absorbable chewable tablet that delivers one gram of fiber per tablet with a sweet, natural taste and desirable mouthfeel.

CATEGORY	INGREDIENT	% BY WEIGHT	TRADE NAME	SUPPLIER	FUNCTION AND BENEFITS
Active	Native Inulin	73.85%	Fruitafit® IQ Inulin Powder	Sensus	This native inulin is a prebiotic fiber extracted from chicory roots delivered in an agglomerated powder format resulting in an excellent dispersability and wettability.
Excipient	Spray Dried Lactose	9.23%	Sheffield™ Spray Dried Lactose	Kerry	Product composed of a spray-dried mixture of crystalline and amorphous lactose monohydrate featuring fast dissolution and low friability, high flowability, and excellent tablet hardness at low compression forces to eliminate wet granulation technology and reduce equipment and process validation.
Excipient	Spray Dried Mannitol	9.23%	MANNITAB™ SD2	Ingredion Pharma Solutions	Free flowing direct compression mannitol with narrow distribution, excellent compactibility, and high solubility in water to enhance dissolution well suited for chewable and ODT formulations.
Excipient	Croscarmellose Sodium (CCS)	2.15%	FARMAL® CCS	Ingredion Pharma Solutions	Premium high performance superdisintegrant that promotes rapid disintegration and excellent long-term dissolution of solid dosage forms.
Flavor	Flavor	1.85%	Natural Berry Type FL SD	Kerry	Natural and authentic flavor innovations that resonate with today's consumers to deliver nutritional excellence, sweetness, and a refreshing, best-in-class taste experience for better patient compliance and satisfaction.
Excipient	Silicon Dioxide	1.85%	Syloid® 244FP	Grace	This flow agent helps achieve optimal uniformity, friability, and hardness while protecting against moisture uptake.
Excipient	Magnesium Stearate	1.85%	Magnesium Stearate	SpecGx, a Mallinckrodt company	Multi-functional excipient delivering fewer product rejects and less manufacturing downtime, saving both time and money. High quality pharmaceutical grade (Hyqual™, Stear-O-Wet™) and food grade stearates available.
TOTAL		100.0%			

#### MANUFACTURING STEPS

- 1 Mixture A: Weigh Fruitafit® IQ, MANNITAB™ SD2, and Sheffield™ lactose in appropriate containers and mix gently to combine the ingedients
- Mixture B: Weigh each excipient in a separate container and then mix manually in the order provided
- 3 Homogenize Mixture A with Mixture B using speedmixer
- 4 Measure the tapped density to calculate Hausner ratio
- 5 Load mixture onto tableting machine with 18 mm die to manufacture tablets

Tableting Machine | Korsch STYL'One Nano

PROPERTIES	
Appearance	Half white
Shape	Round
Odor	Berry
Hardness	70-80N
Disintegration time	Less than 15 minutes
Friability	<1%
Weight	1600 mg per tablet





### POWERING HEALTHY TOMORROWS

### **Oral Solid Dosage Solutions**

Discover our comprehensive excipient portfolio, which includes binders, fillers and diluents, super disintegrants, lubricants, flow-aids, and many more functional excipient types tailored to your tableting needs.

#### **Applications**

The Univar Solutions team of technical specialists and pharmaceutical scientists can support you with excipient recommendations and formulation support across a variety of tablet dosage forms:

- Conventional tablets (coated and uncoated)
- Modified release tablets
- · Orally dissolving tablets
- Effervescent tablets
- Chewables
- Hard shell capsules

#### **Key Products**

- Innophos | A-Tab® MD and Tri-Tab® PVP: are direct compressible co-processed excipients (CPE) that can enhance compressibility and simplify formulations.
- Ingredion Pharma Solutions | MANNITAB™, UNI-PURE® F Line, FARMAL® CCS, and FARMAL® SSG: key excipients used in orally dissolving tablets (ODT) to achieve robust, high-quality ODT products with excellent dissolution performance and mouthfeel.
- Particle Dynamics | Destab™ 90A, Destab™ 90S, and Destab™ 95MD: are direct compressible CPEs that can optimize and simplify a tablet formulation imparting key advantages of a binder-filler.



- SD Head USA | Headcel Hydroxypropyl Methylcellulose (HPMC) and Headcel Ethylcellulose (EC) are cellulose ethers that can be used in tablet coatings and as a tablet binder. HPMC controlled-release (CR) grades are used to form the polymeric matrix in sustained release tablets and capsules.
- Sigachi® | HiCel™, AceCel®, and BARETab®:

   a product portfolio that offers a conventional excipient like microcrystalline cellulose (MCC) in a variety of innovative options, whether spray-dried or agglomerated, co-processed, or in multi-functional pre-mix blends.
- W.R. Grace | Syloid® 244 FP: an exceptional silica gel option that can offer many advantages in your tableting process by increasing the flow of the powder blend, while offering moisture protection to provide the desired tablet hardness. Syloid® XDP offers a unique function of converting oily actives into a free-flowing powder for direct compression.

PRODUCT CATEGORY	EXCIPIENTS	BRAND NAME	SUPPLIERS	
Capsules	HPMC (Vegetarian) Capsules	Caps-Healsee® Capsules	SD Head USA	
Co-processed Excipients	MCC, Croscarmellose Sodium, Mannitol	BARETab® ODT		
	MCC, Colloidal Silicone Dioxide, Croscarmellose Sodium, Magnesium Stearate	BARETab® Nutra	Sigachi <sup>®</sup>	
	MCC, Colloidal Silicone Dioxide, Croscarmellose Sodium, Talc	BARETab® PH		
	Co-processed Calcium Phosphates	A-Tab <sup>®</sup> MD, Tri-Tab <sup>®</sup> PVP	Innophos	
	Co-processed Direct Compression Calcium Carbonates	Destab™ 90A, 95MD, 95S		
	Calcium Carbonates	Destab™ 90S, 95MD, 90A	Particle Dynamics	
	Sodium Bicarbonate/Coated Citric Acid with Guar Gum	CITROCOAT® EP	Jungbunzlauer	
	Fumed Silica	CAB-O-SIL®	Cabot	
Glidant and Flow Aids	Precipitated Silica, Silica Gel	PERKASIL <sup>®</sup> , SYLOID <sup>®</sup> 244 FP, SYLOID <sup>®</sup> AL-1 FP	W.R. Grace	
	Copovidone (PVP-VA), Povidone (PVP)	KoVidone™ VA64, KoVidone™	BOAI NKY	
	High Molecular Weight Polyethylene Glycol (PEG)	CARBOWAX™ SENTRY™ PEG (1450 - 8000 MW)	Dow	
Binders	Mannitol	MANNITAB™ SD	Ingredion Pharma Solutions	
	Pregelatinized Starch	UNI-PURE® WG 220		
	Dextrin, Maltodextrin		Univar Solutions	
	Silicified Microcrystalline Cellulose (sMCC)	HiCel™ sMCC	Sigachi <sup>®</sup>	
	Xanthan Gum	Xanthan Gum	Jungbunzlauer	
	Lactose Anhydrous and Lactose Monohydrate	Sheffield™	Kerry	
	Sorbitol		Ingredion	
- Illoro	Mannitol	MANNITAB™ F, FARMAL™ MN 5000	Ingredion Pharma Solutions	
Fillers	MCC	HiCel™	Sigachi <sup>®</sup>	
	Sucrose	Di-Pac, Verifine	Domino Foods, Lantic	
	Native Starch	UNI-PURE® F and FN, Low moisture: UNI-PURE® FL and F5	Ingredion Pharma Solutions	
Superdisintegrants	Croscarmellose (CCS)	FARMAL™ CCS	Ingredion Pharma Solutions	
	Sodium Starch Glycolate (SSG)	FARMAL™ SSG P (Potato), FARMAL™ SSG C (Corn)	ingredion Pharma Solutions	
	Crospovidone	PolyKoVidone™ XL, PolyKoVidone™ XL-10	BOAI NKY	
ubricants	Magnesium Stearate, Calcium Stearate	HyQual	SpecGx, a subsidiary of Mallinckrodt	
Polymeric Matrix Formers	Cellulose Ethers	Headcel HPMC CR, and EC	SD Head USA	
for controlled and sustained release tablets	Povidone (PVP)	KoVidone K30, K60, K90	BOAI NKY	
Preservatives	Citrates	Citrates	Jungbunzlauer	
	Edetate Disodium USP	VERSENE™NA	Dow	
	Sodium Benzoate	Sodium Benzoate	Macco, LANXESS	
	Parabens	Methyl, Propyl Parabens	Avantor	
Sweeteners	Sucrose	Verafine		
	Tagatose	Tagatose	Domino	
			lunghunglavar	
	Erythritol	ERYLITE®	Jungbunzlauer	
Functional Coatings	Cellulose Ethers	Headcel HPMC and EC	SD Head USA	
Colorants	Dyes and Pigments	FD&C, Oxides	Colour by Univar Solutions, Sensient Technologies	
Solubilizers	Liquid Polyethylene Glycol (PEG)	CARBOWAX™ SENTRY™	Dow	
	Propylene Glycol (PG)	PURAGUARD™	-	
	Mineral Oil, Liquid Paraffin	Drakeo!®	Calumet	
	Glycerin	Glycerin	Proctor & Gamble	



### POWERING HEALTHY TOMORROWS

### **Topical Solutions**

From pain and itch relief, antiseptics, and scar care to hair loss and wrinkle prevention, the range of topicals is vast and growing. Selecting the right excipients is crucial when formulating a topical preparation based on its treatment goal. Explore our comprehensive excipient portfolio including carriers, rheologies, penetration enhancers, preservatives, buffers, and beyond.

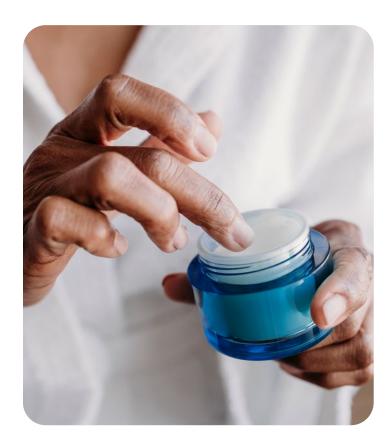
#### **Applications**

As researchers and developers seek ways to optimize the efficacy, consistency, and quality of essential topical formulations, our Univar Solutions team of technical specialists and pharmaceutical scientists can help simplify the process of selecting the right ingredients and provide formulation support across a variety of topical dosage forms:

- Ointments
- Creams
- Pastes
- Gels
- Emulsions

#### **Key Products**

- Corbion | PURAC®, PURASOLV®, PURASAL®, PURAMEX®: a wide range of naturally derived lactic acid products that can be utilized as a 'green' solvent and a source of mineral salt which is highly soluble with good bioavailability.
- DuPont™ Liveo™ | Liveo™ Silicone Excipients: a vast product portfolio of clear, colorless silicone-based ingredients including volatile and non-volatile fluids, gum blends, resin blends, and elastomer blends that enable unique and aesthetically appealing formulations. Their volatility, spreadability, occlusivity, and smooth, non-greasy feel on the skin make them a great base and sensory enhancer for topical applications.



- Ingredion Pharma Solutions: a range of functional native and modified starches that include extra white, low moisture, and ultra-low moisture grade with enhanced thickening and gelling properties that can help create texture.
- SD Head USA | Headcel Hydroxypropyl Methylcellulose (HPMC) and Headcel Methylcellulose (MC): a product portfolio of cellulose esters exhibiting good water solubility, dispersion, thickening, water retention, and film forming properties. Headcel HPMC and MC products offer broad applicability, no crosslinking, and high stability.

PRODUCT CATEGORY	EXCIPIENTS	BRAND NAME	SUPPLIERS	
Vehicle Carriers	Purified Water		Univar Solutions	
	Petrolatum		0.1	
	Mineral Oil	Drakeol®	Calumet Penreco	
	Isopropyl Alcohol (IPA) USP NF		ExxonMobil, Shell	
Emulsifiers	Sodium Lauryl Sulfate (SLS)	Kolliphor® SLS, , STEPANOL® WA-100	BASF, Stepan	
	Cetyl Alcohol			
	Stearyl Alcohol	Adol 62	Cremer	
	Polysorbate	ALFOL® 18	Sasol	
	Sorbitan	ALKEST® TW, ALKEST® SP	Oxiteno	
tallian Anada	Gellan Gum	TayaGel <sup>®</sup>	Jungbunzlauer	
elling Agents	Gelatin		Genu-in	
	Silicones	Liveo™ TE-9720, Liveo™ TE-9721	DuPont™ Liveo™	
	Carbomers		Univar Solutions	
ilm Formers	Hydroxypropryl Methylcellulose (HPMC)	Here de la	CD III . ALICA	
	Methylcellulose (MC)	Headcel	SD Head USA	
	Dimethicone, Silicone Elastomer Blends	Liveo™ TI 1050, Liveo™ Q7-9120, Liveo™ TE-9330, Liveo™ TE-9320	DuPont™ Liveo™	
iscosity Modifiers	Glycerin		Univar Solutions	
	Polyethelene Glycol (PEG)	CARBOWAX™ SENTRY™	Dow	
	Propylene Glycol (PG)		Dow, Lyondell	
	Silicone Elastomer and Resin Blends	Liveo™ TE-9320	DuPont™ Liveo™	
		Liveo™ TE-9330		
Delivery Aids and Sensory Enhancers	Silicone Elastoniei ana Resin Bierras	Liveo™ TE-9720		
		Liveo™ TE-9721		
	Propylene Glycol (PG)		Dow, Lyondell	
Thickeners	Starches		Ingredion Pharma Solutions	
	Gellan Gum	TayaGel®	Jungbunzlauer	
	Xanthan Gum		Jungbunzlauer	
	Cellulose	Headcel	SD Head USA	
Penetration Enhancers	Propylene Glycol		Dow, Lyondell	
	Dimethyl Sulfoxide (DMSO)		Tedia	
	Polysorbate	ALKEST® TW	Oxiteno	
	Methylparaben		Univar Solutions	
	Propylparaben		Avantor	
	Phenoxyethanol		BASF	
reservatives	Benzyl Alcohol		LANXESS	
			Macco, LANXESS	
	Sodium Benzoate		MdCCO, LANAESS	
	Sodium Benzoate  Edetate Disodium USP		Univar Solutions	
	Edetate Disodium USP	Trolamine 99	Univar Solutions	
Buffers	Edetate Disodium USP  Sorbic Acid	Trolamine 99	Univar Solutions Univar Solutions	

 $Products\ and\ suppliers\ may\ vary\ by\ region\ but\ our\ team\ is\ here\ to\ assist\ you\ with\ your\ ingredient\ and\ material\ needs$ 



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