



pect

more reliable, sustainable,
high-quality phosphates supply

RISING TO MEET THE DEMAND FOR PHOSPHATES

As the global population continues to rise, so does the demand for phosphates in food and beverage processing. The global food phosphate market is expected to cross \$2.4 billion by 2024¹, as forecast by strong growth indicators in dairy, bakery, beverage, and meat processing industries.

In order to meet this rising demand, the food and beverage industry needs a reliable, high-quality, and sustainable supply of phosphates. Xingfa is the global leader in specialty phosphates manufacturing, serving more than 50 countries for over 30 years. By owning and operating phosphate rock mines and derivative manufacturing plants using hydropower stations, we have control over the entire supply chain from rock to ingredient, providing our customers with unmatched reliability, traceability, and sustainability.

¹ Global Market Insights, Inc.

FOOD AND BEVERAGE MARKETS WE SERVE

We offer specialty ingredients to the food and beverage industry to meet ever-increasing demand. Our diverse portfolio of phosphates and compound food ingredients enables us to offer innovative solutions for your current and evolving needs.

Products	Meat, Poultry & Seafood	Baking	Dairy	Beverage
Phosphoric Acid Food Grade				X
Monosodium Phosphate (MSP)			X	X
Disodium Phosphate (DSP)			X	X
Trisodium Phosphate (TSP)	X		X	X
Sodium Tripolyphosphate (STPP)	X		X	
Tetrasodium Pyrophosphate (TSPP)	X	X	X	
Sodium Acid Pyrophosphate (SAPP)		X	X	
Trisodium Acid Pyrophosphate (TSAPP)	X		X	
Sodium Hexametaphosphate (SHMP)	X		X	X
Monopotassium Phosphate (MKP)	X		X	X
Dipotassium Phosphate (DKP)			X	X
Tetrapotassium Pyrophosphate (TKPP)	X			
Dicalcium Phosphate (DCPD)		X		
Sodium Trimetaphosphate (STMP)	X		X	
Monoammonium Phosphate (MAP)*		X		
Diammonium Phosphate (DAP)*		X		

*New product coming soon

SPECIALTY PHOSPHATES

Phosphoric Acid Food Grade

Chemical formula: H_3PO_4

Molecular weight: 97.99

Standard executed: GB 3149-2004/FCC

Properties: Under normal temperature, phosphoric acid is a colorless, transparent, viscous, liquid in appearance. It is a tri-basic acid with moderate acidity.

Usage: Phosphoric Acid Food Grade is used as a clarifier, an acid ingredient or a yeast nutrient, and in the production of food grade phosphates.

Packaging: 1000L IBC (1700kg/tank, IBC), 200L drum (330kg/drum), 25L drum (35KG/drum) and ISO-TANK.

Sodium Tripolyphosphate (STPP)

Chemical formula: $Na_5P_3O_{10}$

Molecular weight: 367.86

Standard executed: GB 25566-2010/FCC

Properties: White powder or granular in appearance. Soluble in water. Available in different types according to request, including bulk density (0.5-0.9g/cm³), solubility (10 gram, 20 gram in 200ml water), quick dissolve, and large granular.

Usage: Isolation of multivalent ions and prevention of oxidation and corrosion. Can also be used as a water retention agent, as well a fat and protein emulsifier.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Trisodium Phosphate (TSP)

Chemical formula: Na_3PO_4

Molecular weight: 163.94

Standard executed: GB 25565-2010/FCC

Properties: White powder or granular in appearance.

Usage: Used as a water-retention agent and to improve pH values in the food industry. Used in many applications associated with fruit drinks, milk, meat, cheese products, and canned food.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Sodium Acid Pyrophosphate (SAPP)

Chemical formula: $Na_2H_2P_2O_7$

Molecular weight: 221.94

Standard executed: GB 25567-2010/FCC

Properties: White powder or granular in appearance. Soluble in water.

Usage: Used as a leavening agent, reducing zymosis time. Can also be used as a water-retention agent and a quality improver for meat and seafood processing.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Disodium Phosphate (DSP)

Chemical formula: Na_2HPO_4

Molecular weight: 141.96

Standard executed: GB 25568-2010/FCC

Properties: White powder in appearance. Easy deliquescence. Soluble in water, and the water solution is a weak alkaline base, insoluble in alcohol.

Usage: Used as a quality improver, an emulsifier, a nutrition enhancer, a fermentation aid, and a binder in the food industry.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Tetrasodium Pyrophosphate (TSPP)

Chemical formula: $Na_4P_2O_7$

Molecular weight: 265.90

Standard executed: GB 25557-2010/FCC

Properties: White crystalline or powder in appearance.

Usage: Mainly used in meat and seafood processing as a water-retention agent, a stabilizer for natural pigments, and to prevent fat corruption. It can also be used as a pH modifier, an emulsifier, a quality improver agent in dough, and a nutrient supplement.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Monosodium Phosphate (MSP)

Chemical formula: NaH_2PO_4

Molecular weight: 119.98

Standard executed: GB 25564-2010/FCC

Properties: White powder or granular in appearance. Easily soluble in water, but insoluble in organic solvents.

Usage: Used as a buffer, an emulsifier, and a nutritional supplement in foods and beverages.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Trisodium Acid Pyrophosphate (TSAPP)

Chemical formula: $Na_3HP_2O_7 \cdot nH_2O$

Molecular weight: 261.95 (n=1)

Properties: White powder or granular in appearance. Soluble in water.

Usage: Used for moisture regulation and as an emulsion stabilizer. Can also be used as a buffering, chelating, and/or emulsifying agent.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Sodium Hexametaphosphate (SHMP)

Chemical formula: $(\text{NaPO}_3)_6$

Molecular weight: 611.82

Standard executed: GB 1890-2005/FCC

Properties: White powder, granular, or flake in appearance. Easily soluble in water, but insoluble in organic solvents.

Usage: In the food industry it can be used as an ingredient, nourishing agent, quality improver, pH regulator, metal ions chelating agent, adhesive, and leavening agent.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Sodium Hydroxide (Caustic Soda)

Chemical formula: NaOH

Molecular weight: 40.00

Standard executed: GB 5175-2008/FCC

Properties: Solid base or flaky base. Strong corrosive that can damage cellulose and skin.

Usage: In the food industry, used as neutralization, peeling, bleaching, deodorization, detoxification, and/or detergent agent.

Packaging: 25kg woven bags.

Dipotassium Phosphate (DKP)

Chemical formula: K_2HPO_4

Molecular weight: 174.18

Standard executed: GB 25561-2010/FCC

Properties: White crystalline or powder in appearance.

Usage: Used as a buffer, chelating agent, yeast active agent, emulsifying salt, and antioxidant synergist in the food industry. Also used as stabilizer for coffee mate and soy milk drink as a nutritional, bacteria-blocking agent in fermentation processes.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Tetrapotassium Pyrophosphate (TKPP)

Chemical formula: $\text{K}_4\text{P}_2\text{O}_7$

Molecular weight: 330.34

Standard executed: GB/T 3591-2009/FCC

Properties: White powder or granular in appearance. Moisture absorbing, soluble in water but insoluble in ethanol.

Usage: Used as an emulsifier, chelating agent, dispersant, and buffering agent.

Packaging: 25kg kraft paper bags, 1000kg jumbo bags.

Dicalcium Phosphate (DCPD)

Chemical formula: $\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$

Molecular weight: 172.09

Standard executed: GB 1889-2004/FCC

Properties: White monoclinic crystalline powder in appearance.

Usage: Used as a leavening agent, dough conditioner, nutritional supplement, and emulsion stabilizer in the food industry.

Can be used in baked products as a leavening agent, or as a compound bread and fried food improver.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Sodium Trimetaphosphate (STMP)

Chemical formula: $(\text{NaPO}_3)_3$

Molecular weight: 305.89

Standard executed: HG/T 4515-2013/FCC

Properties: White powder or granular in appearance. Soluble in water, insoluble in organic solvents.

Usage: Used in the food industry as a starch modifier, as a water-retention agent in meat processing, as a stabilizer in cheese and dairy products, and as a stabilizing agent to protect food from discoloration and the decomposition of vitamin C.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

Monopotassium Phosphate (MKP)

Chemical formula: KH_2PO_4

Molecular weight: 136.09

Standard executed: GB 25560-2010/FCC

Properties: White powder or granular in appearance.

Usage: Widely used as a bacterial culture agent, a flavoring agent for synthetic sake, a raw material in potassium metaphosphate production, and a culture, reinforcing, leavening, and/or fermentation agent in yeast.

Packaging: 25kg/50lb kraft paper bags, 1000kg jumbo bags.

SPECIALTY COMPOUNDS FOR MEAT PROCESSING

COMMUNUTED MEAT PRODUCTS

Product	Application	Recommended dosage
XF-M502B	Emulsified meat product	0.3%-0.5% of the final product
XF-M501A	Meatballs	
XF-M501B		

Benefits:

- Enhances water-retention capacity and adhesiveness of comminuted meat products and increases yield of final products
- Extracts salt-soluble protein effectively, improving the elasticity and texture of meat products
- Improves the antioxidative effect to prolong shelf life

PREPARED MEAT PRODUCTS

Product	Application	Recommended dosage
XF-M502A	Prepared meat product	0.3%-0.5% of the final product
XF-W501		1.2%-2.0% of the final product

Benefits:

- Dissolves quickly in ice cold water
- Reduces the loss of processing and cooking, improving yield effectively
- Improves flavor retention and color during processing, keeping tenderness

INJECTED MARINATION

Product	Application	Recommended dosage
XF-M505A	Injected marination meat product	0.3%-0.5% of the final product
XF-H		1.2%-2.0% of the final product

Benefits:

- Dissolves quickly for superior dispersion performance in ice cold water
- Facilitates processing with good tumbling performance
- Increases water-retention capacity, improving product yield
- Retains more juice and nutrients providing succulent and tender texture

SPECIALTY COMPOUNDS FOR SEAFOOD PRODUCTS

MOLLUSKS

Product	Application	Recommended dosage
XF-S101	Acid scavenger for squid	Soaking concentration 1.5%-3%
XF-S102	Peeled squid and other mollusks	
XF-S106	Products such as squid with skin	

Benefits:

- Removes unpleasant taste
- Improves water binding capacity, aiding in preservation
- Reduces weight loss during processing, freezing, and cooking

CRUSTACEANS

Product	Application	Recommended dosage
XF-M505B	Shrimp and shellfish	Soaking concentration 2%-4%
XF-M502C		
XF-M505C		
XF-S506		
XF-W301		

Benefits:

- Dissolves quickly in ice cold water
- Reduces juice loss during processing, thawing, and cooking, ultimately improving product yield
- Protects the natural color and flavor of seafood

TILAPIA FILLETS

Product	Application	Recommended dosage
XF-S106C	Tilapia fillets	Soaking concentration 1%-3%
XF-S118		
XF-S108		
XF-W201		

Benefits:

- Improves water-binding capacity and quality, improving product yield
- Reduces juice loss during freezing and storage
- Improves appearance and retains natural flavors and textures of fillets

COD FILLETS AND FRESHWATER FISH FILLETS

Product	Application	Recommended dosage
XF-M502C	Basa fillets, grass carp fillets, and weever fillets	Soaking concentration 1%-3%
XF-S104		
XF-M2	Cod fillets	

Benefits:

- Improves water-binding capacity and quality, improving product yield
- Reduces juice loss during freezing and storage
- Improves appearance and retains natural flavors and textures of fillets

SURIMI (IMITATION CRAB)

Product	Application	Recommended dosage
XF-M301B	In surimi and surimi products	0.3%-0.5% of the final product
XF-M501B	Surimi products	

Benefits:

- Improves water-binding capacity, reduces weight loss
- Prevents refrigeration degeneration of surimi products, prolonging shelf life
- Enhances the gel strength adhesiveness of surimi products
- Improves the elasticity and smooth texture of surimi products

SPECIALTY COMPOUNDS FOR CHEESE, NOODLES, AND LEAVENING AGENTS

BAKING POWDER

Product	Application	Recommended dosage
Type A	General (Mainly used for baking)	0.8-2% of flour weight
Type B	Fried type (For fried food)	3% of flour weight

Benefits:

- Double-acting, aluminum-free
- Designed to release an exact amount of gas during baking
- Guaranteed for consistency and high quality
- Gives baked goods structure and greatly enhances taste and texture

QUALITY IMPROVERS FOR NOODLES

Product	Application	Recommended dosage
XF-N	Noodles	0.2-0.5% of flour weight

Benefits:

- Improves brightness and color stability during processing
- Increases overcooking tolerance
- Enhances elasticity of noodle
- Emulsifying oil improves moisture retention of raw noodles

CHEESE

Product	Application	Recommended dosage
XF-C	Cheese	0.3%-0.5% of the final product

Benefits:

- Improves the structure and texture of cheese products
- Reduces the loss of moisture during storage and extends shelf life
- Better ion exchange with no creaming reaction

XPEDITE YOUR R&D WITH CUSTOM COMPOUNDS

In addition to offering specific products for each of these industries, Xingfa can create custom compounds based on your specific needs. Our team of innovative food scientists, fully equipped with state-of-the-art laboratories, is ready to help you solve your most difficult challenges.

THE POWER OF X

Xtreme reliability

For more than 30 years, Xingfa has optimized its vertically integrated operations to successfully develop, produce, and market phosphorus-based fine chemicals to more than 50 countries around the globe. Our team of more than 10,000 employees takes pride in delivering unmatched control of raw materials. Our team of more than 10,000 employees takes pride in delivering unmatched control of raw materials across food and beverage, agriculture, pharma and nutrition, and industrial markets — from our operations to yours.

Xceptional quality

Our superior audit results and industry certifications, including ISO9001, ISO14001, ISO18000, ISO22000, NSF International, KOSHER, HALAL, and BRC, confirms Xingfa's compliance to the highest manufacturing standards. We are pleased to accommodate our customers' audit requirements.



Xcellence in sustainability

Our commitment to sustainable energy not only makes us a green leader for the industry, but also provides cost control for our partners. We own and operate more than 30 hydroelectric stations that generate up to 50% of our annual energy requirements and power our operations. Not only do we offer reliable phosphates supply, but we also deliver peace of mind that our products have been produced ethically and responsibly.

Xpertise you can count on

Serving a number of major corporations globally, we partner with end users and distributors to deliver an always-reliable, high-quality phosphate supply. Our food grade STPP and SAPP, SHMP, Tech Grade SHPP, DMSO, and Yellow Phosphorous ranked first at capacity and sales globally.

Xplore how we can help you

Talk to a Xingfa team member or visit xingfausa.com to learn more about our high-quality products and services.