



Haifa Food Phosphates

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Meat, Poultry and Seafood Processing



Phosphates for Meat & Poultry Products

Phosphates for Dry Addition

The quality of sausages, meatballs, hamburgers, chicken nuggets, and other emulsion or coarse chop products depends on effective binding of the protein, fat and water components, and on the stabilization of the emulsion. Haifa's food phosphates provide the ideal solution for binding, emulsifying and preserving a wide range of products (see table). Generally recommended dosage: 0.3 - 0.5%.

Haifa Phosphates for dry addition includes:

Viscous Type Binders

- **M 245:** provides optimal emulsifying and stabilizing properties for a full range of cooked sausages, particularly frankfurters; highly recommended for poultry products
- **M 249:** medium viscosity binder: ideal for emulsion type meat products, including formulations containing pork fat
- **M 248:** effective binder for the full range of sausages, from high-fat to lean; especially recommended for frozen products
- **M 263:** multi-purpose, high viscosity stabilizer for sausages

Non-viscous Type Binders

- **M 242:** provides excellent binding properties for emulsion type products and raw sausages
- **M 298:** multi-purpose binder with moderate pH, for all types of sausages

Phosphates for Brine Preparation

Haifa's phosphates are highly effective in brines and marinades for a wide range of food products. Our food phosphates for brine preparation are greatly soluble and hence recommended for injection brines and marinades. They considerably improve yield and water binding capacity, prevent drip and moisture loss during shelf life, stabilize color, enhance taste and appearance, and prevent microbial growth. Generally recommended dosage: 0.3 - 0.5%.

Haifa Phosphates for brine preparation includes:

- **M 256:** highly effective for all injection and tumbling brines, pickling brines and marinades
- **M 277:** recommended for poultry products, for all injection and tumbling brines and marinades
- **M 344:** low-sodium, highly soluble phosphate for injection and ice-cold tumbling brine for cooked ham and bacon, as well as salt-cured products
- **M 264S:** an effective quick-dissolve, multi-purpose additive for ice-cold brines; can also be used in comminuted products



Haifa Food Phosphates

Haifa's food phosphates are vital ingredients in meat, poultry, fish and seafood processing. Biochemical changes in animal tissue that naturally take place from the time of slaughter, damage various properties of the meat, affecting appearance, texture, taste and shelf life. Haifa's phosphates compensate for these changes, providing the optimal solution for processed foods.

Haifa's phosphate salts:

- Improve palatability (tenderness, color and flavor)
- Increase water retention
- Increase protein solubility
- Improve emulsion stability
- Act as a sequestering agent
- Prevent microbiological spoilage



Haifa Phosphates for Meat & Poultry Products

Grade Name	Typical Values		E Number	Main Application
	P ₂ O ₅ %	pH (1%)		
M 245	60	7.0	E 450, E 452	Medium viscosity binder for emulsion type products
M 249	58	7.7	E 450, E 452	Medium viscosity binder for emulsion type products
M 248	55	8.9	E 450, E 451, E 452	Medium viscosity binder for emulsion type products
M 447	57	8.9	E 450, E 452	Medium viscosity binder for sausages and seafood
M 242	58.5	7.3	E 450	Non-viscous binder for sausages
M 345	56	8.8	E 450, E 451, E 452	Non-viscous cutter phosphate for comminuted meat
M 298	55.5	8.8	E 450, E 451	Non-viscose multipurpose binder for sausages
M 263	56.5	9.2	E 450, E 451, E 452	High-viscosity binder for meat and poultry products
M 218SQD	57	9.7	E 451	Super Quick Dissolve specially processed Sodium Tripolyphosphate for meat, poultry and seafood
M 217 M 216S	57	9.9	E 451	Quick dissolve multipurpose Sodium Tripolyphosphate for meat and seafood (powder and granular)
M 211 M 212	57.5	9.9	E 451	Multipurpose Sodium Tripolyphosphate for meat (powder and granular)
M 221 M 222	53	10.5	E 450	Multipurpose Tetrasodium Pyrophosphate for meat (powder and granular)
M 347N	60.5	7.5	E 450, E 451, E 452	Brine phosphate for poultry products
M 254	56	8.7	E 450, E 451	Brine phosphate for cooked ham and meat pieces
M 276	58	8.7	E 450, E 451, E 452	Ice-cold brine phosphate with increased functionality
M 344	52	8.8	E 450, E 451	Low-sodium ice-cold brine phosphate
M 256	56	8.8	E 450, E 451	Injection and tumbling brine for cooked ham and bacon
M 441	58	8.9	E 450, E 451, E 452	Multi-purpose phosphate for pickling, injection and tumbling brine
M 273	58.5	9.2	E 450, E 451, E 452	Phosphate for injection brines and marinades
M 274	57.5	9.5	E 450, E 451, E 452	Brines and marinades phosphate, tuned for poultry
M 277	57	9.5	E 450, E 451, E 452	Brine phosphate for poultry
M 287	56.5	9.5	E 450, E 451, E 452	High effective for brines, marinades and dry addition application
M 264S	55.5	9.8	E 450, E 451	Ice-cold brine phosphate; non-viscous binder
M 260	56	9.9	E 450, E 451	Multipurpose ice-cold brines and marinades phosphate

Partial list: In order to define the most suitable product for your process, please contact us. Tailor-made solutions are also available.

Haifa's food phosphates comply with the regulations of the Israeli Ministry of Health, and are certified HACCP, Kosher and Halal.

All food phosphate salts production facilities meet the requirements of ISO 9001, ISO 14001, OHSAS 18001, ISO 22000, BRC and GMP standards.



Phosphates for Seafood Processing

Fish and seafood rapidly lose natural fluids and tend to oxidative rancidity, hence they are highly sensitive to both processing and storage conditions.

Haifa's food phosphates are designed to reduce drip losses during cooking and improve texture, tenderness and juiciness. They ensure optimal water retention, improve yield, prevent oxidation, and inhibit microbiological spoilage and rancidity development. Furthermore, they preserve flavor, color and texture.

Haifa's phosphates also provide incremental binding in minced products such as fish balls and surimi.

Dry Addition

M 217, F 261, and M 447 are ideal for emulsion products with various levels of viscosity.

General recommended dosage: 0.3 - 0.5%.

Brine Preparation

M 416, F 252, F 701, F 241S and M 218SQD are highly effective and soluble in ice-cold brines. They increase yield and water binding capacity, reduce flavor and texture deterioration, and stabilize color, taste and appearance.

Recommended dosage in brine: 1.0 - 8.0% for various seafood applications.

Haifa Phosphates for Fish & Seafood Products

Grade Name	Typical Values		E Number	Main Application
	P ₂ O ₅ %	pH (1%)		
F 241S	58.5	8.7	E 450, E 451, E 452	Brine additive for fish and fish fillets, warm seas shrimps and scallops
F 701	56	8.7	E 450, E 451	Brine phosphate for seafood processing, esp. for cold seas shrimps
F 252	57.5	9.5	E 451, E 452	Brine additive for fish and fish fillets, warm seas shrimps and scallops
M 218SQD	57	9.7	E 451	Super Quick Dissolve specially processed Sodium Tripolyphosphate for seafood processing
M 416	57	9.9	E 451	Brine additive for seafood processing
F 261	55	10	E 450, E 451	Non-viscous additive for crabstick (surimi)

Partial list; In order to define the most suitable product for your process, please contact us. Tailor-made solutions are also available.

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Haifa Group is a multinational corporation which was founded in 1966 and operates in over 80 countries around the globe. The company is headquartered in Haifa, Israel, and is privately owned by an American holding company controlled by the Trump Group.

A leading developer, producer and marketer of food-grade and technical-grade chemicals and fertilizers for agriculture and horticulture Haifa has over four decades of experience in transforming rock phosphates into high-quality products for a wide range of applications. Among others Haifa specializes in producing phosphate salts for all segments of the food and beverage industry, including Bakery, Meat, Poultry, Fish, Dairy, Vegetable Processing and Water Treatment.

By adhering to the highest international standards, Haifa ensures consistent, environmentally friendly production and high-quality products. All of the company's food phosphate salts production facilities comply with ISO 9001, ISO 14001, OHSAS 18001, ISO 22000, BRC and GMP standards, as well as HACCP. Additionally, all of Haifa's food phosphates are both Kosher and Halal certified.

With two production sites in Israel, a multitude of subsidiaries and warehouses strategically located throughout North and South America, Europe and Asia and with dedicated agents in numerous other key geographic markets, Haifa serves leading food manufacturers in 80 countries on all five continents with high-quality products and customer service.

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