Healthcare Pharma

EUROPE

Trusted partner for optimal Healthcare solutions

Discover how Cargill supports innovation with a portfolio of health-enhancing and functional ingredients, combined with cutting-edge clinical research and unmatched application expertise.

Cargill is a trusted partner to the Healthcare industry thanks to:

- Comprehensive portfolio of solutions
- Dedicated category expertise
- Quality management and regulatory support
- Differentiating through sustainability

PORTFOLIO OVERVIEW		STARCHES		SWEETENERS							TEXTURIZERS			EMULSIFIERS
		Starches	Maltodextrin	Dextrose	Erythritol	Glucose syrup	Isomalt	Maltitol	Mannitol	Sorbitol	Carrageenan	Pectin	Xanthan	Lecithin
APPLICATIONS	Solid dosage forms	•	•	•	•	•	•	•	•	•	•		•	•
	Liquid dosage forms					•		•		•	•	•	•	•
	Medicated confectionery				•	•	•	•	•	•	•			•
	Parenteral applications			•					•					
	Medical devices											•		

Cargill | Nourishing the world

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Your trusted partner for success

Portfolio

The nature of the pharmaceutical market calls for superior products with the required functionality, taste and shelf-life. This is where Cargill can support, with a broad offer of pharma-grade ingredients, supported by application expertise, which can be used as excipient or API in different dosage forms or as component in a medical device.

Highest quality

Most of our plants adhere to IPEC. PQG Good Manufacturing Practices (GMP) to guarantee that our products consistently meet the compendial standard. This commitment to quality ensures that every product we deliver is safe, effective, and reliable during manufacturing, storage and delivery operations. All our European plants operate under Quality Assurance Programs that are ISO 9001 and FSSC 22000.

Expertise

Cargill has specialist experience and know-how for working with a broad variety of specialty ingredients. We leverage our state-of -the-art technology, onsite laboratories, unique facilities and cooperation with universities, research centers, independent consultants and government bodies to help ensure up to date knowledge of developments as well as regulatory aspects.

Solid dosage forms

Tablets, powders, capsules, sachets and suppositories

Cargill offers a broad range of excipients for solid dosage formulations. From products that provide distinct benefits in direct compression, to binders, diluents, disintegrating agents for wet granulation, coatings and soft capsules, we offer ingredients to suit most needs.

	PRODUCT GROUP	STARCHES			SWEETENERS									TEXTURIZERS		EMULSIFIERS	
		Native	Pregelatinzed	Maltodextrin	Dextrose	Erythritol	Glucose Syrup	Isomalt	Maltitol Syrup	Maltitol	Mannitol	Sorbitol Syrup	Sorbitol	Carrageenan	Xanthan Gum	Deoiled Lecithin	Fluid Lecithin
APPLICATIONS	Granulate	•	•	•	•	•	•	•	•	•	•	•	•	•			
	Powders	•	•	•	•	•				•	•		•	•		•	•
	Softgel, soft capsule (shell)													•		•	•
	Suppositories													•			•
	Tablets	•	•	•	•	•	•			•	•		•	•	•	•	•
FUNCTIONALITIES	Coating			•			•		•	•				•			
	Controlled Release Agent													•	•	•	•
	Diluents, Binders	•	•	•	•	•	•	•	•	•	•	•	•	•			
	Disintegrant	•															
	Fat cyrstallizaton delay	•															•
	Spray dry carrier			•													
	Sweetener				•	•	•	•	•	•	•	•	•				
	Thickening, stabilizing, suspending													•			•
	Wetting & Dispersing Agents															•	•

Liquid dosage forms

Solutions, suspensions, emulsions, creams, gels and lotions

Excipients in liquid dosage form can serve different functionalities. One is to dilute or 'bulk out' the active ingredient and act as a processing aid for the formulation. Sweetening agents are used in liquid dosage formulations such as syrups in order to provide a palatable way of administering an active compound to patients, as well as for some of their more functional properties.

Another important function of an excipient is to texturize by thickening or gelling to stabilize the preparation, as well as to suspend the non-soluble ingredients of the formulation. Polysaccharides such as carrageenans or xanthan gums are used as rheology control and suspending agents to provide many attractive features to liquid oral pharmaceutical formulations.

Phospholipids can also be used to encapsulate an active ingredient by the spontaneous formation of cell-like structures: the liposomes. They are able to entrap the active ingredient, to protect it or to provide a controlled release.

	PRODUCT GROUP	SWEETENERS			TEXTURIZERS		EMULSIFIERS	
		Glucose syrup	Maltitol syrup	Sorbitol Syrup	Carrageenan	Xanthan Gum	Fluid Lecithin	Fractionated Lecithin
APPLICATIONS	Emulsions						•	•
	Solutions	•	•	•				
	Suspensions				•	•	•	•
FUNCTIONALITIES	Emulsifying						•	•
	Liposomes (for Controlled Release)						•	•
	(Sugar-free) bulk Sweetening agent	•	•	•				
	Thickening, stabilizing, suspending				•	•	•	•
	Wetting, dispersing						•	•

Medicated confectionery

Gums, jellies, hard boiled confectionery, chewing gum

Medicated confectionery is widely used in the formulation of drugs for many conditions such as minor throat irritations, coughs, colds, respiratory tract congestion and allergies. Other medicines containing active ingredients such as antacids, vitamins and herbal extracts can also be formulated as confectionery products.

	PRODUCT GROUP	SWEETENERS							TEXTURIZERS		EMULSIFIERS
		Erythritol	Glucose syrup	Isomalt	Maltitol syrup	Maltitol	Sorbitol Syrup	Sorbitol	Carrageenan	Pectin	Fluid Lecithin
APPLICATIONS	Chewing gum	•	•	•	•	•	•	•			•
	Gums & Jellies		•		•	•	•		•	•	•
	Hard boiled confectionery		•	•	•	•	•				
FUNCTIONALITIES	Anti-crystallizing agent		•								
	Coating Agent			•		•					
	Conventional & Sugar-free bulking agent		•		•		•	•			•
	Emulsifying										•
	Sanding	•									
	Softening										•
	Sweetener	•	•	•	•	•	•	•			
	Thickening, gelling								•	•	

Parenteral applications

Parenteral nutrition, injectables, dialysis

Parenteral nutrition and injectable applications are applications requiring products of the highest standards of quality. Our products are manufactured with the same care, control and attention to detail at every stage of the process, and we have invested heavily to help ensure all pharmaceutical grade products are produced in line with appropriate quality management systems. As with all parenteral applications, helping to ensure the solution has controlled pyrogenicity is vital.

	PRODUCT GROUP	SWEETENERS	
		Dextrose	Mannitol
APPLICATIONS	Dialysis	•	
	Injectables	•	•
	Parenteral nutrition	•	
FUNCTIONALITIES	Energy Source	•	
	Excipient		•
	Osmotic Agent	•	

Our plants operate a dedicated production channel for pharmaceutical-grade dextrose monohydrate and mannitol for intravenous injections. The plant facilities have been audited by most of the producers of solutions of parenteral infusion and hemodialysis worldwide. In all aforesaid audits, Cargill was approved as a qualified supplier. Our plant for pharmaceutical dextrose monohydrate is a certified API manufacturing site and has been successfully audited by many leading health authorities worldwide.

Medical devices

Wound dressings, ostomy care

Ostomy pouching systems are prosthetic medical devices used to collect bodily waste, commonly associated with colostomies, ileostomies and urostomies. As a plant-based hydrocolloid, pectin provides great functionalities for ostomy adhesives and accessories.

Hydrocolloid dressings are ideal for burns, liquid-emitting wounds, necrotic wounds, pressure ulcers, and venous ulcers. These self-adhesive, non-breathable dressings are comfortable and suitable for sensitive skin. They create a moist environment that promotes healing by absorbing water and forming a gel, which keeps the wound clean and protected from infection.

	PRODUCT GROUP	TEXTURIZERS	
		Carrageenan	Pectin
APPLICATIONS	Ostomy Care		•
	Wound dressings	•	
FUNCTIONALITIES	Absorbing	•	•
	Adhesiveness		•
	Gelling	•	•

Active Pharmaceurical Ingredient (API)

	PRODUCT GROUP	SWEETENER
		Dextrose
APPLICATIONS	Dialysis	•
APPLICATIONS	Parenteral	•
FUNCTIONALITIES	Carbohydrate source	•
FUNCTIONALITIES	Osmotic agent	•

Dextrose

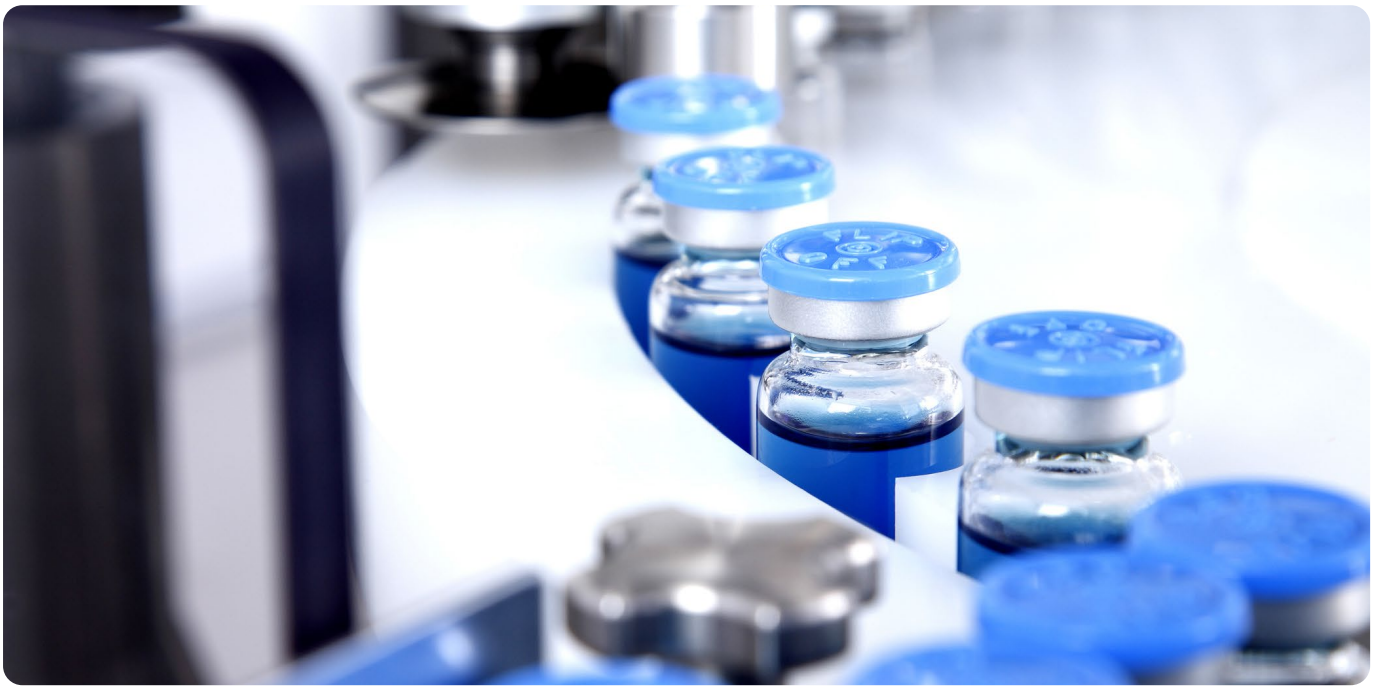
A glucose monohydrate used as API for parenteral nutrition and dialysis solutions (peritoneal and hemodialysis). It's pyrogen free, with below purity levels:

Microbiological purity

- Total aerobic microbial count: max. 10^3/g
- Total yeasts and moulds: max. 10^2/g
- Absence of E. coli (1 g)
- Absence of Salmonella (10 g)
- Absence of Staphylococcus aureus (1 g)

Biological purity

- Pyrogen-free
- Bacterial endotoxin controlled: max 1.25 IU/g



Our pharma plant network

In Europe, Cargill has one of the most diverse and broadest asset network in the industry, with 11 plants producing for pharma customers.

Product integrity is supported through manufacturing policies, including process HACCP evaluations, and process control mechanisms. These policies and processes cover all stages of product manufacturing — from raw material through to finished product storage and customer delivery. SSAFE vulnerability assessments and VACCP vulnerability assessments are conducted in each location.

Cornerstones of our Quality Assurance Program:

- ISO 9001 and FSSC 22000 certified plants throughout Europe
- Excipient channels are in line with IPEC-PQG GMP guidelines for pharmaceutical excipients
- Production of IV-glucose in line with ICH Q7 GMP guidelines
- In-process control
- Full traceability
- Compliance with leading compendial monographs
- Environmental management systems

Our GMP Quality Commitment

Detailed, written procedures provides you with documented proof of consistent processes, whether for your own records or audits

Batch production and release provides 100% traceability and transparency

4-eye control system ensures quality at all stages of production

Certificate of analyses with measured results saves you valuable time and administration

GMP approved transport ensures safe, reliable transportation

For more information

cargill.com/pharmaceutical

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