



Fibers for Life.

JRS MEDIC

Alginates - Hydrocolloids for Biobased Solutions

'Dive in' and Discover JRS PHARMA's Alginates
Extracted from Sustainable Brown Seaweed

VIVAPHARM® Alginates



The World of Alginates

Introduction

JRS PHARMA's Alginate range performs an essential role in a wide variety of healthcare applications. Derived from a rich field of brown seaweed just off the French Brittany coast, the portfolio consists of:

VIVAPHARM® Alginates

- › Sodium Alginate
- › Calcium Alginate
- › Potassium Alginate
- › Alginic Acid

Why VIVAPHARM® Alginates?

Due to its viscosifying, gelling as well as film forming and absorption properties under a variety of different conditions, VIVAPHARM® Alginates are one of the most versatile hydrocolloids. The ability to dissolve and build up gels without heat and the precise control over the gel setting time by adjusting the crosslinking ion release with sequestrants are key benefits. This versatility is reflected in different applications using alginates, from medical and care to nutraceuticals and pharmaceuticals, such as a thickener in syrups, controlled release in tablets, tablet disintegrant, enteric coating for capsules, wound dressing with hemostatic properties, or a physical raft against reflux.

Quality Made in Europe

JRS, a family-owned, independent company, prioritizes high quality, reliability, and a long-term strategic approach.

The Alginate production takes place at our plants in Landerneau and Lannilis, France. There, the majority of our raw materials, the brown seaweed, is harvested.

- › Best-in-class safety practices
- › Stringent quality standards
- › Environmental protection
- › High batch-to-batch consistency

Sustainable Seaweed Harvest

- › Supervision of sustainable harvesting practice by public authorities
- › Ecologically selected harvesting areas and campaign durations
- › A short distance from the sea to the production sites for optimal product quality
- › Long-term contracts with local fishermen
- › Minimal waste production due to application of side products in surrounding agricultures
- › Integrated, on-site water purification process

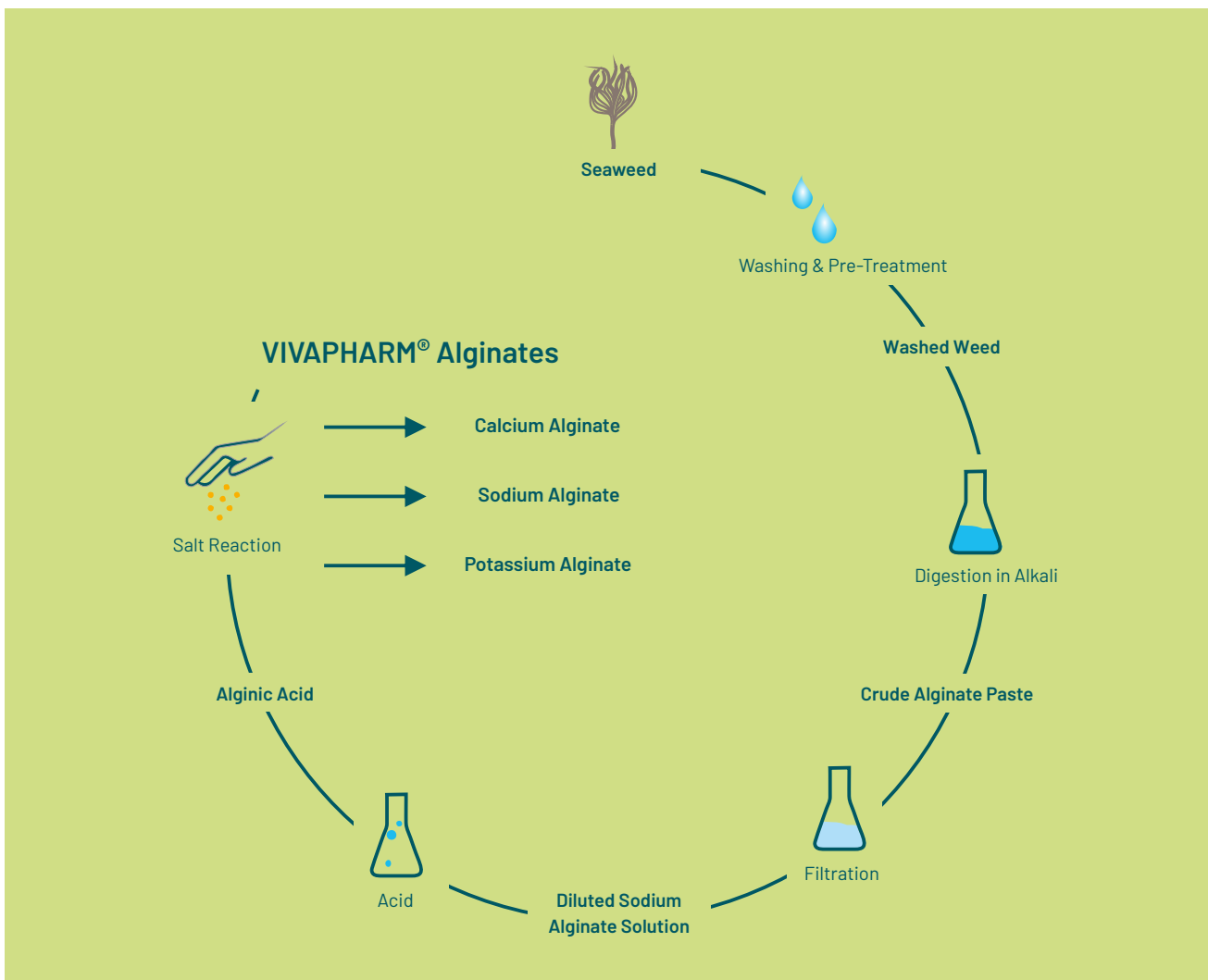
Biobased Hydrocolloid

- › No alcohol precipitation
- › No limit for acceptable daily intake (ADI) by EFSA and FDA
- › Clean label friendly
- › Non-animal origin/vegetarian/vegan
- › Recognized as GRAS by FDA

JRS VIVAPHARM[®] Alginates – Manufacturing Process

The extraction technology of Alginic Acid from seaweed is based on more than 50 years of experience at Landerneau and Lannilis.

After extraction, the Alginic Acid is converted into a series of Alginic Acid salts, such as Sodium Alginate. Each type yields its own unique properties in a wide range of healthcare applications.





Product Overview and Functionalities

With VIVAPHARM® Alginates, JRS PHARMA offers an extensive portfolio for the pharmaceutical, nutraceutical and the medical device market:

- › Disintegration and pH-controlled release properties in tablets
- › Film forming properties for oxygen protective coatings
- › Gel barrier (raft) formation in anti-reflux applications
- › Instant gelling for strong, flexible, clear, glossy and uniform film strips, capsules, and 3D scaffolds
- › Adsorption and hemostatic behavior in wound care products
- › Tailored gelling in dental impressions

Tailor-made VIVAPHARM® Alginates have a wide variety of properties and viscosities, depending on the requirements and defined objectives:

	Sodium Alginate	Calcium Alginate	Potassium Alginate	Alginic Acid	
VIVAPHARM® Alginates	Available viscosity ranges (1 %, 20 °C)	Ultra low to high viscous in the range ~10 - 950 mPa·s	Insoluble	Available viscosity ranges: 100 - 150 mPa·s	
	Available Granulometry	Varous granulometry in the range of min 90% < 80 - 630 µm	98 % < 160 µm	Available Granlometry: min 90% < 80 µm & min 95% < 630 µm	
	Solubility in cold water	Yes	No	Yes	No
	Solubility in hot water	Yes	No	Yes	No
	Gel forming with multivalent ions (e.g. Ca ²⁺)	Yes	No	Yes	No
	Swells in colder water	No	Yes	No	Yes
	Disintegrant	No	Yes	No	Yes
	Wound Treatment	Yes	Yes	No	No
	Controlled Release	Yes	No	No	No
	Anti-Reflux	Yes	No	No	No
Applications	Gelling Agent	Yes	No	Yes	No
	Thickener	Yes	No	Yes	No
	Emulsifier	Yes	No	Yes	No
	Suspending Agent	Yes	No	Yes	No
	Film formation	Yes	No	Yes	No
	Dental Impressions	Yes	No	Yes	No
	Vegan Alternative to Gelatin (e.g. capsuls...)	Yes	No	Yes	No

VIVAPHARM[®] Alginates - Product Information Summary

Why VIVAPHARM[®] Alginates

- › Manufactured without alcoholic precipitation
- › Sustainable, plant-based source
- › Biocompatible and degradable in various environments
- › Clean label friendly
- › Tailored products offer a broad range of solutions
- › JRS' comprehensive application and development service supports fast adaptation and product introduction
- › Control viscosity, texture, and shape of products
- › Improves heat stability:
 - avoids melting or sticking of the final product in hot climate
 - maintains capsule integrity
- › Cold solubility reduces manufacturing effort, as heating is not required
- › Gel setting time can be controlled precisely by targeted ion release
- › Control the release of active ingredients
- › Fluid management in wound dressings





Storage, Samples and Packaging

Store in original, sealed containers protected from excessive heat and moisture.

Free standard samples are available in 200 g and 250 g.

VIVAPHARM® Alginates

Sodium Alginate and Potassium Alginate

Packaging Size	Euro Pallet* (800 x 1200 mm)	Container Pallet* (1000 x 1200 mm)
25 kg paper bag with PE inliner	20 bags x 25 kg: 500 kg	30 bags x 25 kg: 750 kg 40 bags x 25 kg: 1000 kg

Alginic Acid and Calcium Alginate

Packaging Size	Euro Pallet* (800 x 1200 mm)	Container Pallet* (1000 x 1200 mm)
15 kg paper bag with PE inliner	20 bags x 15 kg: 300 kg	60 bags x 15 kg: 600 kg

* non-stackable

Regulatory Information

- > Ph. Eur., USP/NF
- > ISO 9001, ISO 14001
- > Halal, Kosher
- > GMO-free
- > Allergen free
- > FDA approved as Gras (21 CFR 184.1011/1187/1724)
- > Free of residual solvents according to requirements of USP, Ph. Eur., and ICHQ3C
- > No REACH registration necessary
- > cGMP production standards for excipients confirmed by ANSM
- > US DMF IV for excipients for Sodium Alginate registered (No. 034780)
- > CEP for Sodium Alginate registered



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