



PRODUCT IN FOCUS

EXSYN[®]
ESSENTIAL CHEMISTRY

Sodium Alginate

INTRODUCTION

Sodium Alginate is a linear polysaccharide derivative of alginic acid processed from brown algae. The conversion of alginic acid to sodium alginate allows its solubility in water, which assists its extraction. Sodium Alginate is used as a hydrocolloid in various applications such as food manufacturing and pharmaceuticals, as an emulsifier in textiles and cosmetics industries and in dentistry to make molds. It is widely used in Molecular Gastronomy.

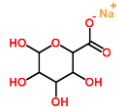
Applications

Pharmaceuticals: Pharma grade Sodium Alginate and Alginic Acid is widely used in pharmaceutical preparations, tissue engineering, clinical treatment and cell culture. It is also used as microencapsulated material and cold resistant agent for cells. In addition, can be used as thickening agent for external ointments, oral tablets for increasing viscosity and forming gel barrier, thus prolonging the drug release time and reduce adverse reactions. It is also added in antibiotic, insulin and hormone drug solution.

Food Industry: Sodium Alginate is a highly viscous purified product used as a food additive, and as a thickening agent, gelling agent, emulsifier and stabilizer. It is used to enhance the texture of noodles. Also used in Vegan meat, Noodles, Ice creams, Lactic Drinks, Breads, Puddings, Yoghurts, Sauce, Cookies, Desserts, Jelly, Cheese, Spherification, etc.

Cosmetics: Sodium Alginate is compatible with a variety of emulsifiers and other skin ingredients. It is an excellent carrier for antioxidants and other anti-aging ingredients, and offers a heightened skin feel. It will help to soften, hydrate and soothe skin and leave it feeling silky and soft. It is used to create a skin care serum or hair gel using water, infusions, distillates and water-soluble extracts etc.

Impressions: Sodium Alginate can react with calcium salts forming a heat – irreversible gel. It is widely used in impression material (Dental, Hand and Leg, study models, portraits etc). Normally for impression material it is mixed with Calcium Sulfate (Gypsum), Tri Sodium Phosphate, diatomaceous earth, zinc oxide, potassium titanium fluoride etc. Alginate impression materials are easy to use, less expensive, with quick setting time. It has low water content, steady viscosity and long shelf life. Alginates fine particle size makes impression surface smooth and thus more identical to the original mould.

Synonyms	Alginic acid sodium salt, E 401
CAS no.	9005-38-3
EINECS no.	934-404-1
Molecular formula	C ₆ H ₉ NaO ₇
Molecular weight	216.12
Structure	



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SPECIFICATIONS – food grade

Test	Unit	Specification
Colour	-	Cream coloured or lighter
Particle size	-	80 mesh
Moisture	%	Less than 15
pH	-	6 - 8
Ash	%	18 - 27
Viscosity (1% solution at 20° C)	mpas	500 - 700
Water insoluble matter	%	Less than 0.6
Lead (as Pb)	mg/kg	Less than 5
Arsenic	mg/kg	Less than 2
Total plate count	cfu/gm	Less than 1000
<i>Salmonella</i>	cfu/gm	Absent in 10 gm
<i>E. Coli</i>	cfu/gm	Absent in 1 gm
<i>Yeast & Mold</i>	cfu/gm	Less than 100

STORAGE

Store in a cool & dry place. Keep away from moisture.

PACKING

Standard packing is in 5 kg, 10 kg, 20 kg, 25 kg corrugated cartons and 25 kg fiber board drums. Food Grade Sodium Alginate is also available in paper board containers of 100 and 500 gm for retail consumption. Impression Grade Sodium Alginate is available in 500 gm pouches.

REGISTRATION / CERTIFICATION

ISO, FSSAI, HACCP, HALAL, KOSHER & GMP certified.

No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.