

Patents related to active beads containing encapsulated ingredients

US 6,325,859	Make emulsions of oil-in-water & encapsulate with alginate by dripping in CaCl ₂ bath
US 6,238,690	Core-shell material for food products: shell comprising glassy state carbohydrate (e.g. sucrose, glucose, fructose, sorbitol, maltitol, xylitol, etc) & core comprising flavourings, oil-based materials or confectionery fillings.
US 5,855,826	Encapsulates fat-soluble actives in collagen / alginate / agar / gelatin /chitin, and then encapsulate microcapsules in gellan gum matrix
US 5,620,707	Beadlets for flavouring beverage: shell from gelatin / PVA / waxes / gums. Core contains flavour / sweetener components in oily carrier. Beads formed through co-extrusion of heated material into cooler environment.
US 4,888,140	Round, fluid-filled microcapsules through co-extrusion through concentric nozzle of shell (gelatin) and core (triglyceride carrier)
US 4,426,337	Co-extrusion of shell (gelatin) and core (oral refrigerant or spice condiment)
US 4,332,790	Nestlé patent on manufacturing fat microcapsules containing micro-organisms

Patents cited by International Search Report on previous application

US 5,543,162	Polymeric capsule containing at least two polymers
US 5,545,410	Controlled release encapsulated carbohydrate
EP 0 494 417	Encapsulates active ingredients in cross-linked gelatin
JP vol. 018, no. 288	(Patent abstracts)

US Patents related to suspension of inclusions in beverages

The following is an incomplete list of US patents in the period 1996 to 2001 relating to the use of gellan gum for suspension of inclusions in beverages or for stabilization of beverages.

US 5,376,396	Uses CMC and gellan
US 5,597,604	0.01-0.15% gellan + sequestrant in beverage
US 5,654,027	Calls the pre-gel a "concentrated gum dispersion" with gellan, sequestrant and optionally a calcium salt.
US 6,042,854	Gellan 10-500 ppm for liquid nutritional products
US 6,106,883	Uses pre-gel solution of gellan, sequestrant