Microencapsulation of vitamin C through extrusion process

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A healthy diet and consumption of a variety of foods should ensure adequate supply of vitamin C to the body. A study was carried out to development of microcapsules for vitamin C by extrusion process. Sodium alginate used as a coating material. 2g of sodium alginate with 0.2N of CaCl₂ solution was better to develop the microcapsules and load the core material of vitamin-C (L-ascorbic acid). Encapsulation efficiency was noticed higher in 100mg of vitamin C beads. The average efficiency rate is 74%. Vitamin C microcapsules were stored for 15 days at room temperature and refrigerated conditions. When compared to room temperature stored capsules which lost the maximum amount of vitamin C (average range of loss 175%) with refrigerated stored capsules during the storage period of 10th day onwards.

Keywords: Microencapsulation, vitamin C, extrusion, microcapsule beads, encapsulation efficiency.

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