

INDUSTRIAL DEVELOPMENT FOR MASS PRODUCTION OF A DIETARY SUPPLEMENT OBTAINED BY TOPSPRAY CONTINUOUS FLUID BED AGGLOMERATION

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This work describes the industrial development of a new dietary supplement based on the needs of the Colombian people. Actually, in Colombia, some dietary supplements comes in granules traditionally produced by extrusion; this production process leads to product degradation specially in the vitamin content due to high temperatures and high shear. To solve this issue producers overdose the ingredients to overcome the loss generated due to processing conditions that at the end increases the product cost. Therefore, Quala S.A. proposed a top-spray production technology for continuous fluid bed agglomeration, which allows using lower temperatures with lower shear rates for the granulation leading to less impact on the stability of the vitamins and other components as flavours. The variables of greatest relevance in the production of the multivitamin granules were also studied in order to obtain the main characteristics that are useful for the product consumption. As far as we know, this is an innovative technology for the production of dietary supplements and provides good results not only for Quala S.A. but also for the national industry.

Biography

Daniel Laguado is a Chemical Engineer from Universidad del Valle (Colombia) with a Master degree in Product Formulation and Technology from Universidad de Huelva (Spain). In 2009, he was awarded by the European Union with a scholarship for his Master degree in Engineering Rheology as part of the Erasmus Mundus program. Currently he is working as Research & Development Manager for the consumer health care division in Quala SA, a consumer goods manufacturing industry with presence in several countries in Latin America. He has more than eight years of experience in product & process development working at companies like Johnson & Johnson (Hair, Skin Care and OTC divisions) and PepsiCo (Snacks products).

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