Title (en)

A METHOD AND A SYSTEM FOR CONVERTING LIQUID PRODUCTS INTO FREE-FLOWING POWDERS WITH PRE-COOLING

Title (de)

VERFAHREN UND SYSTEM ZUR UMWANDLUNG VON FLÜSSIGEN PRODUKTEN ZU FREISTRÖMENDEN PULVERN MIT VORKÜHLUNG

Title (fr)

PROCEDE ET SYSTEME DE CONVERSION DE PRODUITS LIQUIDES EN POUDRES FLUIDES AVEC PREREFROIDISSEMENT

Publication

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Application

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Abstract (en)

[origin: WO02087348A1] The present invention relates to a method and a system for converting liquid products for the cheese making or casein producing industry into substantially free-flowing powdery products, by subjecting the liquid product to heating to a temperature above the crystallisation temperature of any component in the liquid product in a heat exchanger, flash separating volatile components from said heated liquid product to obtain a past concentrate, pre-cooling a fraction of said past concentrate, and drying said combination product. By the pre-cooling it is possible to create lactose crystals by an extremely rapid in-line pre-cooling without any significant increase in viscosity (which would lead to an un-pumpable paste). It is assumed that only a fraction of the paste gets into contact with the walls of the cooler causing a rapid formation of a high number of seed crystals. Further, it is assumed that the seed promote the formation of lactose crystals during the subsequent drying process.

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