

Title (en)
BULK FREEZING OF BIOPHARMACEUTICALS

Title (de)
MASSENEINFRIERUNG VON BIOPHARMAZEUTIKA

Title (fr)
CONGÉLATION EN VRAC DE PRODUITS BIOPHARMACEUTIQUES

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Application
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Abstract (en)
[origin: WO2012135216A2] A system and method for bulk freezing is provided. In one embodiment, the system and method for bulk freezing includes a bulk freezing container adapted to hold at least one and preferably a plurality of bags holding a biopharmaceutical liquid. The bulk freezing container includes at least a first and second shelf having corrugations w herein the second shelf is vertically arranged above the first shelf with the bags disposed between the shelves. The bags and the corrugations of the first and second shelves define a plurality of substantially parallel flow channels through which a cryogenic cold fluid or a warming fluid is passed to freeze and/or thaw the biopharmaceutical fluid. In another embodiment, the bulk freezing system and method includes a bulk freezing container with a plurality of adjacent elongated chambers adapted for holding the biopharmaceutical fluid. The adjacent elongated chambers have side walls defining a plurality of substantially parallel flow channels between the plurality of adjacent elongated chambers through which a heat transfer medium is passed for heat exchange through the side walls of the elongated chambers to the fluid within the elongated chambers.

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