It was another object of the invention to provide tablets based on allulose, i.e. tablets exhibiting high amounts of allulose, and at the same time, satisfying hardness.

BRIEF DESCRIPTION OF THE INVENTION

In a first aspect, the invention is directed to the use of allulose as a direct compression excipient in a directly compressible composition.

In a second aspect, the invention provides allulose, particularly suitable for such use, which is compressible in the sole presence of a lubricant, to form a tablet having a diameter of 13 mm, a weight of 800 +/-5 mg, a cylindrical shape with convex faces with a radius of curvature of 13 mm, whose hardness is greater than 50 N, at at least one compression force chosen within the range of 5 to 20 kN, the ejection force being lower than 1200 N.

In third aspect, the invention provides a directly compressible composition comprising allulose, wherein allulose represents at least 30 % of said directly compressible composition, said percentage being expressed in dry weight, with respect to the total dry weight of said directly compressible composition.

In a fourth aspect, the invention provides a method for the manufacture of a tablet, comprising the steps of: providing a directly compressible composition according to the invention; followed by directly compressing the composition to form the tablet.

In a fifth aspect, the invention provides a tablet comprising allulose and wherein allulose represents at least 30 % of said tablet, said percentage being expressed in dry weight, with respect to the total dry weight of said tablet.

In another aspect, there is disclosed a process for the manufacture of allulose as disclosed herein, the process comprising:a step (a) of providing allulose obtained by crystallization in water or in a mixture of ethanol and water, preferably in water alone; a step (b) of grinding allulose obtained in step (a); a step (c) of sieving the allulose obtained in step (b), so as to obtain allulose having mean volume diameter D 4.3 greater than 45 µm and equal to or lower than 310 µm, preferably equal to or lower than 250 µm, preferably equal to or lower than 200 µm, preferably equal to or lower than 125 µm; a step (d) of recovering the allulose obtained in step (c).

DETAILED DESCRIPTION OF THE INVENTION

The inventors succeeded in obtaining compositions based on allulose, suitable for direct compression, as evidenced in Examples 1, section 2), Figure 1. These directly compressible compositions allowed the formation of tablets having great hardness, greater than 50 N, when compressed at satisfying compression forces which do not need to exceed 20 kN, and at the same time, satisfying ejection forces were measured. These compositions had high amounts of allulose, and no other compression excipient was required to obtain these results.