Abstract

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Title of Thesis:	Flow equation of sorbitol granules with addition of magnesium stearate.

The aim of this thesis is to study particulate built and consolidation properties of the granulate prepared by wet granulation of sorbitol and it´s size fractions in the range of 0,2 – 0,8 mm and it´s influence of adding lubricate magnesium stearate 0.5% and 1.0%. The properties were studied by the angle of repose, the three kinds of bulk density, tap density, the Hausner ratio. The granules showed adequate to good flow properties. The addition of magnesium stearate flow increases the rate through the granulate sorbitol. Mass flow rate through the orifice the conical hopper of the test depending on the particle size and hole diameter were monitored. With increasing particle size the rate of pouring decreases, while the diameter of the hole had the opposite effect. Dependence of the flow rate to the average of the opening of the hopper was modeled by a power equation Jones-Pilpel. When using the current parameters with accuracy reverse estimate of the flow rate ranged between approximately 2 – 4%.