

Obtained homeopathic medicine *Rosmarinus D3* are globular granules with white colour and sweet taste; amount of the stuck together granules – 0.60 ± 0.02 (pieces); quantity granules in 1.0 g – 45 ± 1 (pieces); losses in mass at the drying – 0.95 ± 0.04 (%); ability to decay – 2.5 ± 0.5 (min); an average mass of one granule – 0.22 ± 0.2 (g); filling volume – 0.75 ± 0.02 (g/cm³).

Conclusions. As can be seen from obtained results, prepared granules have good organoleptic, physical-chemical, technological quality, which are correspond to the standards according to the SPhU.

THE CORRECT SELECTION OF LUBRICANTS AS ONE OF THE WAYS TO A SUCCESSFUL TABLET COMPOSITION

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Introduction. As known, excipients are required ingredients in most drugs. Despite the small amounts in which lubricants are generally applied, they are the most commonly used substances in tablet formulations.

Aim. It is to characterize the effectiveness of lubricants as auxiliary substances in the development of drugs in tablet form.

Materials and methods. The study was conducted based on a literature sources analysis.

Results and discussion. Nowadays there is a wide range of lubricants produced under various brands: stearic acid, magnesium and calcium stearate, talc, silica, hydrogenated castor oil, poloxamer 407, PEG 4000, PEG, 6000, sodium lauryl sulfate, etc. These excipients, as a rule, are added to the powder (granular) mixture just before pressing process. Their main function in the composition is to ensure the proper ejection force of the tablet from the die of the press tool and thereby facilitate the tableting process. This function becomes especially important when high pressing forces are used, since significant compaction of the mixture can lead to its adhesion to the surface of the punches. In addition, it is of great importance to ensure accurate dosing of the tablet mass into the die of the tablet machine and good ejection force of the obtained tablets at high speeds of the tableting process, which, in turn, affects the productivity and economy of the equipment, as well as service life of the press tool. According to the literature sources, some lubricants can additionally affect the technological parameters of the mixture, since, along with the main function (ejection force), they have properties to improve flowability, remove static electricity, etc.

However, despite all the advantages, many lubricants are known for being difficult to work with, since even in small quantities they affect the technological properties of both the mixture and the tablet itself. Thus, a lack of lubricant can lead to adhesion of the material to the punches and die and, accordingly, the destruction of the tablets, which would lead to a halt in the process of the finished product obtaining. On the other hand, over-lubrication can lead to insufficient strength and poor disintegration and dissolution of the tablets.

Conclusions. Therefore, in the development of tablet formulations, an important aspect is a complex of studies on the selection of a suitable lubricant and determination of its rational amount in the composition of solid dosage forms.