ASSESSMENT OF THE QUALITY INDICATORS OF THE BIOLOGICALLY ACTIVE ADDITIVE BASED ON *GERANIUM SANGUINEUM*

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Relevance. According to statistical analyses, most agents used today for the treatment of infectious throat diseases are obtained through chemical synthesis, while preparations derived from natural raw materials are relatively rare. It should be noted that physiologically active natural compounds are superior to their synthetic analogues in terms of safety indicators. The composition selected by scientists of the Institute of Bioorganic Chemistry of the Academy of Sciences of the Republic of Uzbekistan, based on plant raw materials, has demonstrated efficacy in the treatment of these diseases. Therefore, obtaining a convenient dosage form and standardizing it is of great importance.

Aim of the study. Evaluation of the quality indicators of a biologically active supplement based on Geranium sanguineum and Glycyrrhiza glabra.

Materials and methods. The studies on the evaluation of the quality indicators of the biologically active supplement were carried out in accordance with the requirements of the National Standard of Uzbekistan O‘zMSt 166:2024 and the State Pharmacopoeia of the Republic of Uzbekistan.

Results. The composition of one tablet: active substance – Geran 0.25 mg; licorice root extract (Glycyrrhiza glabra) – 5 mg; excipients: sorbitol or mannitol – 970 mg, menthol or menthol oil – 5 mg, calcium stearate – 10 mg. Total tablet mass – 1000 mg. The tablets appeared as white or whitish round tablets with flat edges and smooth surfaces. Their appearance complied with the requirements of the State Pharmacopoeia. For testing, 20 tablets were randomly selected and weighed on an FA1204B analytical balance with an accuracy of 0.001 g. The average tablet mass was 0.991 g, with deviations of +4.8% and -3.1%. The disintegration time was determined using the LB-2D apparatus. The dissolution medium was 700 ml of purified water, maintained at 37 ± 2.0 °C. After filling the vessel with the medium and adjusting to the required temperature, six tablets were placed in the basket tubes (one per tube) and covered with discs, after which the test was initiated. All six tablets disintegrated completely within 8–10 minutes and passed through the mesh. Tablet friability was tested on 10 tablets. Their initial mass was 9.8475 g, and after the test their mass was 9.8296 g. The friability was calculated using the formula: $X = 100 – (m_1 – m_2 / m_1 \times 100\%) = 99.82\%$.

Conclusion. The study results showed that the tablet dosage form of the biologically active supplement based on Geranium sanguineum and Glycyrrhiza glabra, as an additional source of flavonoids and glycyrrhizic acid complex, meets the requirements of the National Standard O‘zMSt 166:2024 with respect to quality indicators.