

The poster features a background image of the US Capitol building at night, illuminated with warm lights, and its reflection in a pool of water. An American flag is visible in the top right corner, partially overlapping the text. The entire poster is framed by a red border.

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QUANTITATIVE DETERMINATION OF TOTAL FLAVONOIDS IN CHOLERETIC CAPSULES BASED ON DRY EXTRACT OF SAMARKAND IMMORTELLE

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Relevance: Currently, in the range of medicinal products with choleretic, hepatoprotective, antioxidant, anti-radiation, immunomodulatory, and other spectra of action available in the pharmaceutical market of the Republic of Uzbekistan, foreign preparations dominate. One way to address this issue is to investigate new species from already studied plant genera, such as the Samarkand immortelle. It is known that the flowers of the Samarkand immortelle are used in traditional medicine as a choleretic and hepatoprotective agent. The chemical composition of the Samarkand immortelle flowers has been studied only partially. To expand the range of domestically produced choleretic drugs, we have developed a technology for producing capsules based on the dry extract of Samarkand immortelle.

Objective of the study: Quantitative determination of the total flavonoids in choleretic capsules based on the dry extract of Samarkand immortelle.

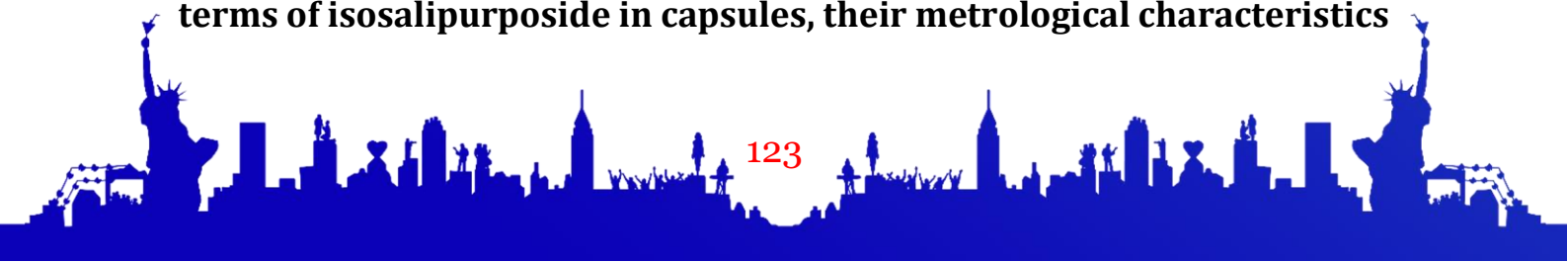
Materials and methods: The object of the study is capsules based on a dry extract obtained through alcohol-water extraction from the flowers of Samarkand immortelle, recommended as a choleretic agent.

Analysis of the literature has shown that in the regulatory documentation for Samarkand immortelle raw material, the total flavonoid content (calculated as isosalipurposide) is used as the main biologically active substance. The quantitative content is determined by the spectrophotometric method at a wavelength of 315 ± 2 nm. In this regard, it was decided to standardize the capsules we obtained for this biologically active substance using this method.

Results: The results of the quantitative determination of the total flavonoid content in terms of isosalipurposide and their metrological characteristics are presented in the table.

Table

**Results of quantitative determination of the total flavonoid content in
terms of isosalipurposide in capsules, their metrological characteristics**





Content of the total flavonoids calculated as isosalipurposide, %	Metrological characteristic
26,03	$X_{aver}=26,67$
26,38	$S=0,5080 \quad S_x=0,2272$
26,60	$T(95 \%, 4)=2,78$
27,04	$\Delta X_{aver}=0,6316$
27,30	$E=5,30 \% \quad \varepsilon_{aver} = 2,36 \%$

The average content of total flavonoids in the dry extract, calculated as isosalipurposide, was 26.67%.

Conclusions: According to the obtained data, the total flavonoid content in capsules based on dry extract of Samarkand immortelle, calculated as isosalipurposide, is 26.67% (average of 5 determinations), with a relative error at 95% probability = 2.36%. The standard for the content of biologically active substances in the dietary supplement is set at 25%.

