

## JUSTIFICATION OF COMPLEX SWEETENER IN COMPOSITION OF DENTAL GEL BASED ON EXTRACTS FROM PLANT RAW MATERIALS

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The use of drugs for application to oral mucous membranes involves contact with taste receptors, so the taste properties of such drugs are very important. The plant raw materials, the extracts of which are used as components of the drugs, have a specific and often unpleasant taste, so it is advantageous to introduce the corrective agents [1]. Intensive sweeteners are most often used, and sugar substitutes with low glycemic index are less common [2].

The purpose of this work is to study model samples of dental gel with different concentrations of sweeteners - potassium acesulfame and sodium saccharin, namely 0,05 %, 0,10 % and 0,15 %. As factors are taken concentrations of intense sweeteners, which were added to model samples of dental gel, response function is taste qualities of test samples. The results of the study are shown in table 1.

Table 1 – Effect of concentration ratio of intense sweeteners on taste quality of dental gel samples

Samples, №	Concentration of intense sweeteners in dental gel composition, %				Tastes, $y_1$
	Potassium acesulfame, $x_1$		Sodium saccharin, $x_2$		
	sym.	%	sym.	%	point grade
1	+1	0,15	+1	0,15	2
2	-1	0,05	0	0,10	9
3	0	0,10	-1	0,05	10
4	-1	0,05	-1	0,05	5
5	-1	0,05	+1	0,15	8
6	0	0,10	+1	0,15	4
7	+1	0,15	-1	0,05	7
8	+1	0,15	0	0,10	3

According to the results of the studies, sample № 3 was selected, which showed a taste profile close to the taste profile of the 9,0% sucrose solution and was marked by the absence of metallic aftertaste. This sample can be used to adjust the taste of drugs for application to oral mucous membranes.

### References:

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