

Cocoa butter has pronounced anti-inflammatory and softening effects. It was injected as a hydrophobic phase of the ointment base.

As emulsifiers for the formation of a stable emulsion ointment basis, it was proposed to use the following surfactants: glycerol monostearate, cetyl alcohol, or, if necessary, a combination thereof.

Glycerol monostearate – a texture component and an emulsifier, which has the same antiviral activity. It protects the skin from adverse environmental factors; moisturizes, prevents moisture loss; softens the skin; promotes better penetration of active substances.

Cetyl alcohol, which belongs to the class of fatty alcohols, not only does not provoke dryness and dehydration of the skin, but, conversely, as part of emulsion systems plays the role of a beautiful moisturizer, protecting the epidermis from overdrying. Advantages of the application include its safety, non-toxicity and natural origin. It also has an occlusive effect, which can create a moisture-retaining film, improves the permeability of the lipid barrier for active substances and softens the skin.

To select the emulsifier and its amount, samples of ointments containing selected active pharmaceutical ingredients and emulsifiers in different concentrations were investigated.

Conclusions. Based on the results of experimental studies, it was determined that to obtain a stable emulsion system, it is necessary to use glycerol monostearate at a concentration of 20% of the weight of the oil phase. Also, the technology of the ointment was proposed on the proposed emulsion basis.

DEVELOPMENT OF COMPOSITION AND TECHNOLOGY OF GEL-MASKS WITH ARGIRELINE

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Introduction. Mimic wrinkles on the human skin appear in typical places, as a result of the reduction of mimic muscles. Due to the danger and side effect of injection methods of wrinkle correction in modern cosmetology, external agents became widely popular: creams, gels, masks. The most effective biologically active substances of this segment of cosmetic products are polypeptides that are used in age-sensitive skin care products, hair growth stimulation, alopecia therapies.

Aim. The aim is to justify the composition of the healing cosmetic mask, the active substance of which is acetyl-hexapeptide-3.

Materials and methods. Analysis and systematization of literature data, physical-chemical and structural-mechanical research were used.

Results and discussion. Analysis of literature data showed the prospect of gel form for the development of gel mask with Argireline. Gels do not cause clogging of skin pores, they are quickly and evenly distributed, are absorbed better than ointments; after applying the gel do not leave a fat trace and do not contaminate clothing. As a biologically active substance we selected acetyl-hexapeptide-3, known under the trade name Argireline. This substance provides a muscle relaxant effect on the muscles of the face, thereby eliminating the main cause of mimic wrinkles. This is a water soluble substance, therefore, a hydrophilic gel was chosen as the basis. Gel with Argireline was made on the basis of water and hydrophilic elastomers – sodium alginate, carbopol and aristoflex.

The study of physical and chemical parameters of the samples obtained, structural and mechanical studies have shown that the optimal gel formulation for the processed medium is aristoflex (Aristoflex AVC). Gels based on it can be prepared both in hot (up to 80 °C), and in cold way. Since the peptide substance is included in the gel, we chose a cold method of preparation (the temperature does not exceed 40 °C). A transparent, glossy gel, which was uniformly and easily applied to the skin, was obtained. Rheological parameters of the obtained sample were studied.

Conclusions. Based on the results of the physicochemical and structural-mechanical studies of samples with Argireline, an optimum gel formulation and its concentration for an anti-aging gel mask was established.