



**JOURNAL OF ADVANCED
SCIENTIFIC RESEARCH**

ISSN: 0976-9595

Editorial Team

Editorial Board Members

Dr. Hazim Jabbar Shah Ali

Country: University of Baghdad , Abu-Ghraib , Iraq.

Specialization: Avian Physiology and Reproduction.

Dr. Khalid Nabih Zaki Rashed

Country: Dokki, Egypt.

Specialization: Pharmaceutical and Drug Industries.

Dr. Manzoor Khan Afridi

Country: Islamabad, Pakistan.

Specialization: Politics and International Relations.

Seyyed Mahdi Javazadeh

Country: Mashhad Iran.

Specialization: Agricultural Sciences.

Dr. Turapova Nargiza Ahmedovna

Country: Uzbekistan, Tashkent State University of Oriental Studies

Specialization: Art and Humanities, Education

Dr. Muataz A. Majeed

Country: INDIA

Specialization: Atomic Physics.

Dr Zakaria Fouad Fawzy Hassan

Country: Egypt

Specialization: Agriculture and Biological

Dr. Subha Ganguly

Country: India

Specialization: Microbiology and Veterinary Sciences.

Dr. KANDURI VENKATA LAKSHMI NARASIMHACHARYULU

Country: India.

Specialization: Mathematics.

Dr. Mohammad Ebrahim

Country: Iran

Specialization: Structural Engineering

Dr. Malihe Moeini

Country: IRAN

Specialization: Oral and Maxillofacial Radiology

Dr. I. Anand shaker

Country: India.

Specialization: Clinical Biochemistry

Dr. Magdy Shayboub

Country: Taif University, Egypt

Specialization: Artificial Intelligence

Kozikhodjayev Jumakhodja Hamdamkhodjayevich

Country: Uzbekistan

Senior Lecturer, Namangan State University

Dr. Ramachandran Guruprasad

Country: National Aerospace Laboratories, Bangalore, India.

Specialization: Library and Information Science.

Dr. Alaa Kareem Niamah

Country: Iraq.

Specialization: Biotechnology and Microbiology.

Dr. Abdul Aziz

Country: Pakistan

Specialization: General Pharmacology and Applied Pharmacology.

Dr. Khalmurzaeva Nadira - Ph.D., Associate professor, Head of the Department of Japanese Philology, Tashkent State University of Oriental Studies

Dr. Mirzakhmedova Hulkar - Ph.D., Associate professor, Head of the Department of Iranian-Afghan Philology, Tashkent State University of Oriental Studies

Dr. Dilip Kumar Behara

Country: India

Specialization: Chemical Engineering, Nanotechnology, Material Science and Solar Energy.

Dr. Neda Nozari

Country: Iran

Specialization: Obesity, Gastrointestinal Diseases.

Bazarov Furkhat Odilovich

Country: Uzbekistan

Tashkent institute of finance

Shavkatjon Joraboyev Tursunqulovich

Country: Uzbekistan

Namangan State University

C/O Advanced Scientific Research,

8/21 Thamocharan Street,

Arisipalayam, Salem

Decorative cosmetics - chemical composition and allergic reactions

Gafardinova Shirina Tadzhalievna student

Kimyo International University in Tashkent

Abstract: The article reveals the concept of decorative cosmetics and the influence of its chemical composition on the human body.

Key words: cosmetics; chemistry; allergy; beauty; health; care; appearance; substance; compound; products; reaction

Introduction

A person's appearance is an important component of his image. Women pay especially great attention to their appearance. Skin care is important for female attractiveness, and cosmetics are a great help in this.

Cosmetics are divided into types based on the stages of skin care. One of the primary places is occupied by decorative cosmetics, which are aimed at correcting appearance, namely, masking flaws and highlighting advantages. But using various decorative cosmetics, people often take risks, since their chemical composition directly affects their health.

Relevance

The topic of the chemical composition of decorative cosmetics and its effect on the human body is always relevant, since mascaras and lipsticks, eye shadows and blushes, pencils and varnishes are important attributes of our cosmetics bag. We often experiment with our appearance without thinking about the harm to our health. Therefore, it is important to study the composition of the cosmetics used and have an idea of the extent of its damage or benefit.

Main part

In the literature you can often find the concept of “decorative cosmetics”. In my article I want to answer the questions: “What is this? And why is it needed?” If we consider the word “decor”, then it means “decoration”. Therefore, decorative cosmetics are aimed at creating a beautiful image. Generalizing this concept, we can give the following definition: “Decorative cosmetics is a type of cosmetics that is aimed at transforming the appearance, namely the face, making it more attractive, pleasant, emphasizing advantages or hiding disadvantages (concealers and foundations, powder, lipsticks, eye shadow, blush, liquid eyeliner.)” [1].

When considering the types of decorative cosmetics, it is important to distinguish their three main classes:

1. Mass-market. One of the cheapest lines of cosmetics, intended for mass consumption.

2. Middle-market. It belongs to the middle class products and claims to contain natural ingredients.

3. Lux. Positioned as high-end cosmetics. It differs in price category, much more expensive than the above-mentioned classes.

Professionnel cosmetics are distinguished as a separate type. Used for professional purposes.

We are primarily interested in the chemical composition of cosmetics aimed at mass consumption. Most often, girls and women use cosmetics such as lipstick, eye

shadow, and mascara. Let us consider in general their chemical composition, its benefits and harms.

Lipsticks typically consist of four components:

1. Base. It consists of natural plant waxes: beeswax or Brazilian palm wax.

The benefit of wax is that it prevents skin dehydration and allows lipstick to glide on easily.

The base also includes castor, mineral, olive and coconut oils, lanolin and petroleum jelly. Their useful practical purpose is to soften the lips and add a soft shine to the color.

2. Supplements are most often vitamins A and E. They have an anti-inflammatory effect.

3. A mixture of pigments and dyes determines the shade of the lipstick.

4. Fragrance is designed to hide the smell of the raw material of the lipstick.

But lipstick also contains harmful ingredients. These include carmine (used in the production of red-pink tones), it is prone to cause allergic reactions; lanolin, which also initiates allergies and is also predisposed to disrupt the digestive process; Vaseline, which can also be allergic and dry out lips, which leads to the need to apply lipstick more often [2]. We see that the same substances in lipstick can affect the body both positively and negatively.

Having studied the chemical composition of eye shadows, the following can be considered harmful to health: kaolin (white clay from the mineral kaolinite) - may be allergic; tocopherol acetate (antioxidant) - in large doses can cause irritation, peeling and burning of the skin; zinc oxide (a coloring matter that protects against ultraviolet radiation) - can cause an allergic reaction, burning and irritation of the skin and eyes. The mascara also contains unsafe substances. For example, dyes that can cause burning and irritation of the eyes. It is important that the box bears the inscription: "Approved by ophthalmologists!" Analyzing the influence of the chemical substances that make up these cosmetics, it is impossible to say unequivocally that they will necessarily harm the body, since the likelihood of allergic reactions and irritations depends on the individual reaction of a person's skin to these substances. It is also necessary to check the expiration date of cosmetics, since expired products can also cause allergies, because in this case the chemical elements, interacting with each other, affect the skin in a negative way. In this case, there is no need to feel sorry for such cosmetics and be sure to dispose of them [3].

In order to identify the quality of the lipstick and make a comparative description, I took 3 samples of lipstick:

1) low price category: Golden rose Velvet Matte 15 shade (Türkiye);

2) middle class: Max Factor Color Elixir (510 English Rose) (Ireland) [7];

3) lux category: Dior Addict Lacquer stick (577 Lazy) (France)[8].

1. Goldenrose Velvet Matte shade 15

Components and their purpose:

1) PPG-3 hydrogenated castor oil is a highly effective solubilizer of active substances, essential oils and perfume compositions for dissolving essential oils or oil-soluble active additives.

2) Isononyl isononanoate - a liquid with a pleasant fruity-floral smell and taste; used in lipstick fragrances.

3) Ethylhexyl palmitate - used as a co-emulsifier and oil substitute, solvent, wetting agent, and as a flavor fixative.

4) Ozokerite - acts as a binder, emulsifier and stabilizer, as well as an agent that controls the viscosity and transparency of substances.

5) Synthetic wax - increases the softening temperature of lipsticks; improves product uniformity and surface quality, protects against sticking and enhances slip; effective as a matting agent.

6) HDI/trimethylol hexyl lactone crosspolymer - creates a smooth feel to the final product.

7) Hydrogenated coconut glycerides - thickener, skin softener.

8) Nylon-12 - opacifying agent, filler in cosmetics; absorbs fat.

9) Candelilla wax is the basis for decorative cosmetics.

10) Cetiaryl alcohol - is a thickener and viscosity stabilizer for the oil-in-water system.

11) Ethylhexyl hydroxystearate is an emollient.

12) Octyldodecanol - can act as a flavor fixative, emulsion stabilizer

13) Phytostearyl/octyldodecyl lauroyl glutamate - can act as a flavor fixative, emulsion stabilizer, and is also a skin conditioning agent.

14) Carnauba wax - allows you to obtain a thick consistency and makes products resistant to moisture and temperature fluctuations.

15) Perfumery fragrance - fragrant substances intended for aromatizing cosmetics.

16) Phoenix standard is a preservative, effective against gram-negative bacteria.

17) Tocopheryl acetate - effective as an antioxidant, prevents the oxidation of unsaturated lipids; has vitamin activity, penetrating into the deep layers of the epidermis and hydrolyzing into vitamin E.

18) Silica - effective matting effect.

19) Octadecyl ditbutyl-4-hydroxyhydrocinnamate - antioxidant

20) +/- Mica, CI 77891, CI 77491, CI 77492, CI 77499, CI 45410, CI 45380, CI 17200, CI 15850, CI 12085, CI 73360, CI 16035, CI 42090, CI 77742, CI 19140, C.I. 15985, CI 47005, tin oxide - pigments that provide a range of different shades. It is also a conditioning agent for the skin.

2. Max Factor Color Elixir (510 English Rose)

Components and their purpose:

1) Castorum communis seed oil - nourishes and softens dry and flaky skin well.

2) Isopropyl isostearate - emollients and solvents, provide a light and non-greasy consistency of the formulations.

3) Mica - colored using mineral pigments in different shades.

4) Ethylhexyl hydrostearate is an emollient.

5) Acetylated lanolin - used as a film-forming component.

6) Ozokerite - acts as a binder, emulsifier and stabilizer, as well as an agent that controls the viscosity and transparency of substances.

7) Candelilla wax is the basis for decorative cosmetics.

8) Paraffin is a thickening component.

9) Carnauba wax - allows you to obtain a thick consistency and makes products resistant to moisture and temperature fluctuations.

10) Cetyl alcohol is a solvent, emulsifier, thickener and structural basis for other ingredients.

11) Cetyl lactate is a co-emulsifier that helps improve the appearance and texture of the cosmetic composition.

12) Persea gratissima oil - easily and quickly absorbed by the skin, leaves no residue and does not cause irritation.

13) Hydrogenated vegetable oil - helps fight skin diseases, relieves inflammation and irritation.

14) Coconut oil - moisturizes, nourishes, has anti-inflammatory and regenerating properties; is a foaming agent and antioxidant, protecting the skin from negative environmental influences.

15) Aloe barbadensis leaf extract - has a powerful antioxidant, antibacterial, healing, tonic effect.

16) Camellia leaf extract - has antioxidant, deodorizing, preservative effects, antimicrobial, anti-caries and antiviral activity.

17) CI 77491, CI 77891 - pigments that provide a range of different shades.

3. Dior Addict Lacquer stick (577 Lazy)

Components and their purpose:

1) Polyglyceryl-2 triisostearate is an excellent dispersant for inorganic pigments.

2) Methyl hydrogenate rosinate - helps soften the skin and prepares it.

3) Polyisobutene hydrogenated - gives a silky feel on the skin, an alternative to mineral oil.

4) Octyldodecanol - can act as a aroma fixative, emulsion stabilizer, and is also a skin conditioning agent.

5) Polyethylene - polyethylene granules are considered the most delicate type of abrasive particles.

6) Dimer dinoleyl, dimer dinoleate is an emollient that acts as a lubricant, giving the skin a soft and smooth appearance.

7) Hydrogenated polydecenes are safe emollients: non-comedogenic, do not cause irritation to the eyes and skin.

8) Hydrogenated styrene / methyl styrene / indene copolymer - viscosity control.

9) Microcrystalline wax - differs from paraffin in its very fine crystalline structure, as well as higher viscosity and high melting point.

10) Trimethylolpropane triisostearate is an emollient.

11) Beeswax - has a strong anti-inflammatory effect, softens well, does not clog pores, regenerates, protects the skin from the harmful effects of detergents.

12) Aluminum Calcium Borosilicate/Silica - Improves glide in cosmetic mixtures and reduces the appearance of fine lines and wrinkles, easily absorbs moisture and oil.

13) Perfumery fragrance - fragrant substances intended for flavoring cosmetics.

14) BHT - main function is as an antioxidant.

15) Pentaerythrityl tetraditebutyl hydroxyhydrocinnamate is an antioxidant.

16) Propyl gallate - used as an antioxidant.

17) Benzyl salicylate - used in the preparation of perfume compositions and fragrances.

18) Linalool - has the aroma of lily of the valley.

19) Amylcinnamal - a liquid with an oily-fruity odor with a balsamic note.

20) Tocopherol (vitamin E) - is a strong antioxidant, prevents oxidative processes in the body, is used together with vitamin A for the stability of the latter, regenerates, and has an anti-aging effect.

21) Limonene - has high antibacterial activity.

22) [+/-: CI 12085, CI 15850, CI 15985, CI 19140, CI 42090, CI 45380, CI 45410, CI 73360, CI 77891, CI 77163, CI 77491, CI 77492, CI 77499, CI 77742] - - - pigments that provide a range of different shades.

The analysis of the declared composition of the lipstick samples I selected complies with the GOST standard and does not contain toxic impurities. The main components everywhere are fat, wax and oil. The cheap sample uses synthetic wax, while the middle class and lux samples use natural wax. The second sample contains the most natural oils. Lux lipstick contains more antioxidants. Vitamins and nutritional components are included in all samples [4].

You can test decorative cosmetics for toxic substances yourself in a laboratory setting.

What toxic substances can cosmetics contain? To answer this question, let's turn to heavy metals, for example, lead. This substance may be contained in lipstick.

Although cosmetologists claim that heavy metals are safe in small doses, on the other hand, lead tends to accumulate in the body.

What are the dangers of lead? First of all, it can cause female infertility, caries, diseases of the skeletal system, anemia; reduce immunity, absorption of calcium, zinc, selenium.

For example, lead was found in samples of lipsticks from Dior, Maybelline, Max Factor and Oriflame, but its doses did not exceed the established norm, that is, no more than 5 mg/kg (data from the OZPP Roskontrol) [5]. However, according to statistics, a woman often uses lipstick, that is, over the course of a year she can eat a large amount of it and, accordingly, accumulate lead in her body.

Conclusion

Summarizing the above, we can conclude that modern decorative cosmetics have a place in people's lives, but they must be selected in accordance with the individual characteristics of the skin. It is important to take care of your cosmetics bag and get rid of expired products on time. Today, science has gone far ahead, many new technologies have been developed, and cosmetic products are tested before entering the market [6]. Therefore, it is important to avoid purchasing low-quality products and purchase cosmetics from trusted manufacturers.

Bibliography:

1. Villamo H. Cosmetic chemistry: Transl. from Finnish M.: Mir, 1990.-288 p.
2. Vilкова S.A. Commodity research and examination of perfumery and cosmetic products. Textbook for universities. M.: Publishing House "Business Literature", 2000.-279 p.

3. Voitsekhovsaya A.L., Volfenzon I.I. Chemistry for you. Cosmetics today. M.: Chemistry, 2008.-176 p.

4. The influence of cosmetics on the human body. URL: <https://scienceforum.ru/2016/article/2016029008>

5. Harmful components in cosmetics. URL: <https://ladyup.online/kosmeticheskie-sredstva/vred/vrednye-komponenty-v-kosmetike.html>

6. Decorative cosmetics and its effect on the skin. URL: <http://www.hintfox.com/article/dekorativnaja-kosmetika-i-ee-vlijanie-na-kozhy.html>