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NEW DAY IN MEDICINE**

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www.bsmi.uz

https://newdaymedicine.com E:

ndmuz@mail.ru

Тел: +99890 8061882

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## CLASSIFICATION OF NICOTINE-CONTAINING PRODUCTS KHALIMOVA DILRABO JALILOVNA

Khalimova D.J. <https://orcid.org/0009-0003-8545-6946> e-mail: [xalimova.dilrabo@bsmi.uz](mailto:xalimova.dilrabo@bsmi.uz)

Bukhara State Medical Institute named after Abu Ali ibn Sina, Uzbekistan, Bukhara, st. A. Navoi. 1  
Tel: +998 (65) 223-00-50 e-mail: [info@bsmi.uz](mailto:info@bsmi.uz)

### ✓ Resume

*Non-smoking tobacco products are positioned as an alternative to cigarette consumption. Non-smoking products differ in appearance, method of consumption, ingredient composition, level of toxicity, manufacturing technology, and physiological effect. In recent years, there has been a steady increase in consumption of both chewing tobacco and tobacco-free nicotine-containing products in Uzbekistan. A wide variety of non-smoking products creates certain problems with product identification. Methods generally accepted in the tobacco industry were used to determine the technological and consumer characteristics (humidity, fractional composition, nicotine content) of non-smoking tobacco.*

*Keywords: tobacco product, manufacturers, tobacco sticks, tobacco products*

## НИКОТИН САҚЛОВЧИ МАҲСУЛОТЛАР КЛАССИФИКАЦИЯСИ

Халимова Д.Ж. <https://orcid.org/0009-0003-8545-6946> e-mail: [xalimova.dilrabo@bsmi.uz](mailto:xalimova.dilrabo@bsmi.uz)

Абу али ибн Сино номидаги Бухоро давлат тиббиёт институти Ўзбекистон, Бухоро ш., А.Навоий кўчаси. 1 Тел: +998 (65) 223-00-50 e-mail: [info@bsmi.uz](mailto:info@bsmi.uz)

### ✓ Резюме

*Тутунсиз тамаки маҳсулотлари сигарет истеъмолига алтернатив сифатида кўрсатилмоқда. Бу турдаги маҳсулотлар ташиқ кўриниши, истеъмол усули, таркибий моддалари, токсиклик даражаси, ишлаб чиқариш технологияси ва физиологик таъсири билан фарқ қилади. Сўнги йилларда Ўзбекистонда ҳам чайналадиган, ҳам никотин сақловчи тутунсиз тамаки маҳсулотларни истеъмол қилишда барқарор ўсиш кузатилмоқда. Тутунсиз маҳсулотларнинг хилма-хиллиги уларни аниқлашда муайян муаммоларни келтириб чиқармоқда. Тутунсиз тамаки маҳсулотларининг технологик ва истеъмол хусусиятларини (намлик, фракцион таркиб, никотин миқдори) аниқлашда тамаки саноатида қабул қилинган умумий методлардан фойдаланилди.*

*Калит сўзлар: тамаки маҳсулоти, ишлаб чиқарувчилар, тамаки таёқчалари, тамаки маҳсулотлари*

## КЛАССИФИКАЦИЯ НИКОТИНОСОДЕРЖАЩИХ ПРОДУКТОВ

Халимова Д.Ж. <https://orcid.org/0009-0003-8545-6946> e-mail: [xalimova.dilrabo@bsmi.uz](mailto:xalimova.dilrabo@bsmi.uz)

Бухарский государственный медицинский институт имени Абу Али ибн Сины, Узбекистан, г. Бухара, ул. А. Навои. 1 Тел: +998 (65) 223-00-50 e-mail: [info@bsmi.uz](mailto:info@bsmi.uz)

### ✓ Резюме

*Бездымные табачные изделия позиционируются как альтернатива курению сигарет. Эти продукты различаются по внешнему виду, способу употребления, составу ингредиентов, уровню токсичности, технологии производства и физиологическому воздействию. В последние годы в Узбекистане наблюдается устойчивый рост потребления как жевательных табачных изделий, так и никотиносодержащих продуктов, не содержащих табака. Разнообразие бездымных продуктов создаёт определённые трудности в их идентификации. Для определения технологических и потребительских характеристик бездымного табака (влажность, фракционный состав, содержание никотина) были использованы общепринятые методы табачной промышленности.*

*Ключевые слова: табачная продукция, производители, табачные стики, табачные изделия*

## Relevance

They have a high negative impact on the human body. As soon as nicotine enters the body, it spreads rapidly through the blood and can cross the blood-brain barrier. On average, 7 seconds after inhaling tobacco smoke is enough for nicotine to reach the brain. The half-life of nicotine from the body is about two hours. The average cigarette provides about 2 mg of absorbed nicotine. The estimated lower dose limit for death is 500-1000 mg of nicotine orally for adults 6.5-13 mg / kg, for rats — 140 mg / kg through the skin, for mice — 0.8 mg / kg intravenously and 5.9 mg / kg intraperitoneal administration. Nicotine addiction includes drug-fueled behavior, compulsive use, and relapse after abstinence. Nicotine addiction includes tolerance, sensitization, physical and psychological dependence. Nicotine addiction causes stress. Nicotine is considered a teratogen in humans. The average lethal dose of nicotine.

A tobacco product is a product made entirely or partially from tobacco, intended for smoking, chewing, sucking, or inhaling through the nose. Tobacco products are divided into: Smoking tobacco products. For example, a cigarette, a cigar, a cigarillo, a hookah. Smokeless tobacco products. Tobacco intended for oral consumption, which does not require a burning process. For example, tobacco products for electronic heating, chewing tobacco, snuff, snus. Tobacco products include products used similarly to conventional tobacco products that mimic the consumption of tobacco products, as well as products that replace tobacco products, regardless of the nicotine content in these products. For example, an electronic cigarette, a nicotine pad. Tobacco products for smoking Tobacco products for smoking usually include cigarettes, cigarillos, cigars, handmade cigarettes ("hand-rolled cigarettes"), as well as hookah. We have already discussed what cigarettes, cigarillos and cigars are and how they differ in the article. Therefore, we suggest briefly examining these concepts and those that have not yet been disclosed. A cigarette is a tobacco product for smoking in the form of a tube made of special cigarette paper filled with crushed tobacco, to one end of which a special filter is attached, partially preventing the penetration of chemicals and compounds into the body (however, there are cigarettes without a filter). Tobacco smoke is formed as a result of smoking during the combustion of tobacco, during which more than 4,000 chemicals and compounds are released. The most harmful to health are nicotine, carbon monoxide, tar, heavy metal salts and residual substances formed as a result of gorenje.

First of all, a potential buyer should pay attention to such criteria as the nicotine content in a particular product. This is really very important for those who want to control the strength of the product used. Before choosing a specific type of tobacco-containing product, it is recommended to familiarize yourself with the entire product range. Given the large number of species and the wide range, it will be quite difficult to do this. In the selection process, it is necessary to take into account all the little things, starting from the possible regularity of smoking, ending with an analysis of the risks from using a specific type of tobacco product. Having identified these components, it is possible to search for the desired variant of a certain format, strength and a certain number of permissible puffs / uses. It is also important to familiarize yourself with the manufacturers. Especially when it comes to e-cigarettes, as the product is popular, it is produced by dozens of well-known brands and hundreds of little-known companies that have recently entered the market. Well-known cigarette brands are Parliament, Marlboro, L&M, Bond, Philip Morris and others. You can view more details and order on the website. A cigar is a tobacco product made from tightly rolled tobacco leaves. Cigars are designed to be smoked by inhaling the smoke produced by burning tobacco leaves.

Air-dried abacus is well fertilized using both manure and artificial fertilizers. The plants top off, but higher and later than the plants for tubo-root drying. Versification serves to redirect nutrients from reproduction to leaf growth and root formation. Often, air-dried plants do not take root until the harvest itself. The shadow created by stepsons prevents starch photosynthesis. The leaves of Burley and Maryland tobacco are large — 90-160 cm<sup>2</sup>, cylindrical or pyramid-shaped, the plant reaches a height of 180 cm. Tobacco harvesting begins when the middle leaves on the stem are ripe. The plants are cut off entirely. If the weather conditions were dry during cultivation, then the first two tiers of the lower leaves should be removed. Five or six plants are pricked through the lower part of the stem onto a stick and left in the field for drying for about 4 days. After drying, tobacco sticks are hung in rows in the sheds to dry. Sheds should be positioned and constructed in such a way as to obtain the maximum air circulation to be regulated. The relative humidity should be 65-70%. The initial curing of tobacco takes 10-12 days. In the next 6-7 days, tobacco turns brown. Drying lasts 30-40 days. Drying sheds are heated only in conditions of extreme cold or humidity, which interfere with uniform drying. Heat is not used to speed up the drying process. In the first days of air drying, protein substances break down, and decomposition

products move from the leaves to the stem. Next, the leaves dry out and the enzymes are deactivated. The second stage of drying is slow oxidation. At this stage, polyphenols are formed, which give a brown color, and the composition of the available organic acids changes. At the final stage, the drying of the veins is completed. Air-dried tobacco contains almost no sugar. The total nitrogen content increases from the bottom of the stem to the top. Nicotine increases from the bottom to the middle, then remains constant almost to the top.

Over the course of several weeks to several months, tobacco leaves on sticks are collected and sent to the packaging room. This stage is called bulking. During this period, the moisture content in tobacco increases and the enzymes that did not die during drying become active, resulting in the loss of some sugar. When the humidity of tobacco rises above 10%, precautions must be taken to avoid mold damage. After bulking, the tobacco raw materials are sorted, tied into papules of 15-20 leaves and placed in containers for sale. Many manual operations of the classic pipe-and-fire drying process have become impractical. Therefore, mechanical methods of tobacco harvesting and bulk-curing dryers are used, which are fully ready for sorting. Sorted tobacco is not bound in papushki, but sold in loose form. The stages of redrawing, aging in piles and aging are the same for air-dried and tubo-fire-dried Tobaccos. The cost of pipe-drying tobacco increases by about 75% from the moment when the tobacco raw materials are purchased to the cigarette manufacturing process. The largest part of the increase in cost (approximately 30%) is caused by losses from the purchased weight of tobacco in the form of veins, torn leaf (pharmaceutical materials) and contamination with mineral impurities (earth, sand). Some of these losses are offset by the sale of veins and pharmaceutical products for the production of reconstituted tobacco. Other significant costs (more than 20%) are the maintenance and storage of tobacco for 2 years, as well as the cost of improving the processes of indoor processing, redrawing, packaging and transportation to the storage site (about 25%).

The main quality categories (high-quality raw materials, medium-quality raw materials and low-quality raw materials) The properties of tobacco vary well. High-quality raw materials are characterized by the manifestation of Virginia tobacco-specific smoking properties, as well as lemon-yellow and yellowish-orange colors with a reddish tinge and a slight degree of damage. Chemical composition: a high Schmuck number (above 2.0) and a low ash content of up to 14%. High-quality raw materials should at least be represented by 4 quality groups based on scrap: lower medium, medium, upper medium and upper leaves. The medium-quality raw materials are characterized by neutral smoking properties with the appearance of pinching. The Schmuck number ranges from 1.0 to 2.0, and the amount of ash reaches 17%. The color of the leaves is uneven: yellow-green, reddish-brown or yellow with brown spots. Damage from diseases and pests is moderate. Qualitative groups are distinguished based on color and damage: yellowish-greenish, yellow-brown, red-brown leaves. Low—quality raw materials have pronounced unpleasant sensations when smoking and the worst chemical composition - the Schmuck number is below 1.0. Externally, the raw materials have a green, dark brown or brownish-black color and a severe degree of damage.

As cigarette smoking becomes increasingly unpopular due to restrictions and increased awareness among people, manufacturers are trying to find new ways to continue profiting from nicotine addiction. The tobacco industry is investing heavily in the development of new products offering alternatives to smoking. Since it is difficult to get rid of addiction, tobacco companies are trying to promote their new products as a means to a useful way of quitting smoking. Unfortunately, the tobacco industry is not striving to improve the health of the population, but is fighting for its own viability. In order to ensure the long-term future of the tobacco industry, investments in nicotine products are increasing, the main target of which is young people.

Varietal differences are especially evident in morphological features: the shape of the leaf plate; the shape of the leaf base; the nature of the leaf surface. The important indicators that most fully and reliably reflect the maturity and smoking properties of tobacco raw materials are the color and moisture content of the leaves. So, the darker the green color and the more part of the leaf it occupies, the lower the quality of tobacco will be. The dark green color of the leaf is usually associated with harvesting unripe leaves or with their lack of fatigue at the first stage of drying, the brown color is the result of overexposure of leaves at high relative humidity and elevated air temperature during drying and fermentation. According to the degree of humidity, tobacco raw materials can be dry (when compressed in the palms of the hands, the leaves break and crumble); normally moist (after compression, the leaves return to their original shape, that is, they have good elasticity) and excessively moist (after compression, the leaves partially

expand or do not expand at all). The moisture content of unfermented tobacco raw materials for all types and commercial grades should be 19.0-21.0%. Depending on the color, degree of humidity, and contamination of leaves with sand and earth, four commercial tobacco varieties have been identified (see special reference data on the characteristics of each variety).

To conduct an examination of tobacco products (including for customs purposes), it is necessary to use the following basic concepts that characterize tobacco products.

1) tobacco is a plant of the genus *Nicotina* of the family of nightshade species *Nicotina Tabacum*, *Nicotiana Rustica*, cultivated in order to obtain raw materials for the production of tobacco products;

2) raw materials for the production of tobacco products - tobacco that has undergone post-harvest and (or) other industrial processing;

3) tobacco products - products made entirely or partially from tobacco leaf as a raw material, prepared in such a way as to be used for smoking, sucking, chewing or sniffing;

4) type of tobacco product - a set of smoking and non-smoking tobacco products, similar in consumer properties and method of consumption. These include cigarettes, cigars, cigarillos (cigaritas), cigarettes, hookah tobacco, thin-cut smoking tobacco, pipe tobacco, bidi, kretek, sucking tobacco (snus), chewing tobacco, snuff tobacco, naswai and other tobacco products;

5) smoking tobacco products - tobacco products intended for smoking;

6) a cigarette is a type of smoking tobacco product consisting of cut raw materials for the production of tobacco products wrapped in cigarette paper.

If the consumer packaging or leaflet contains words or phrases containing additional characteristics of the tobacco product, such as "low-tar", "light" and (or) "very light", words with the same root as the words "low", "light", analogues of such words in foreign languages., as well as transliterated analogues of such words, marks and other designations (except for registered trademarks) from foreign languages into Russian, which create the impression that such a tobacco product is less harmful to health (hereinafter referred to as the word or phrase used) is marked on consumer packaging: "(the word or phrase used with a capital letter in quotation marks) does not mean that this product is less harmful to health." This label must occupy at least 10 percent of the area of the larger side of the consumer packaging of tobacco products and be applied to one of the larger sides of the consumer packaging of tobacco products in a clear, easy-to-read similar font, the size of which is not less than the font size of the word or phrase used.

### **Conclusion**

Other warning labels about the dangers of smoking, with the exception of those indicated, may be established by the federal executive governmental body responsible for developing state policy. and regulatory and legal regulation in the field of healthcare. The above-mentioned warning labels may be changed periodically by decision of the federal executive authority responsible for developing state policy and regulatory regulation in the field of healthcare, but no more than once a year. Each of the preliminary labels on the dangers of smoking mentioned above may be accompanied by drawings (including pictographs) approved by the federal executive governmental body responsible for developing state policy and regulatory regulation in the field of healthcare, and should be applied to approximately an equal number of consumer packaging units of the same name of smoking tobacco products produced by the manufacturer of tobacco products in circulation during the calendar year. The main warning label about the dangers of smoking should be placed on one larger side (front surface) of the consumer packaging unit for smoking tobacco products, and the other warning label about the dangers of smoking should be placed on the other larger side (surface opposite to the front) of the consumer packaging unit for smoking tobacco products. The area bounded by the frame, including the area of the frame itself, must occupy: for the main warning label - at least 30 percent of the area of the larger side of the consumer container, for the other warning label - at least 50 percent. The specified information is applied in capital letters in black on a white background, in bold, clear, easy-to-read font of the largest possible size. The line spacing should not exceed the font height. The information should be evenly distributed over the entire area bounded by the frame.

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