



CLASSIFICATION OF FRUIT JUICES BASED ON CHEMICAL COMPOSITION

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Abstract: *The article proved that the Brix number of fruit juice is measured by the concentration of sucrose in solution and the presence of soluble dry residue.*

Key words: *To its own DST requirements, SanPiN, Commodity Nomenclature, Brix number, QSAR certification system, TIF TN.*

MEVA SHARBATLARINING KIMYOVIY TARKIBI BO'YICHA TASNIFI

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Annotatsiya: Maqolada meva sharbatining Brix soni eritmadagi saxaroza konsentratsiyasi va eruvchan quruq qoldiqning mavjudligi bilan o'lchanishi isbotlangan.

Kalit so'zlar: O'z DST talablariga, SanPiN, Tovar nomenklaturasi, Brix raqami, QSAR sertifikatlash tizimi, TIF TN.

КЛАССИФИКАЦИЯ ФРУКТОВЫХ СОКОВ ПО ХИМИЧЕСКОМУ СОСТАВУ

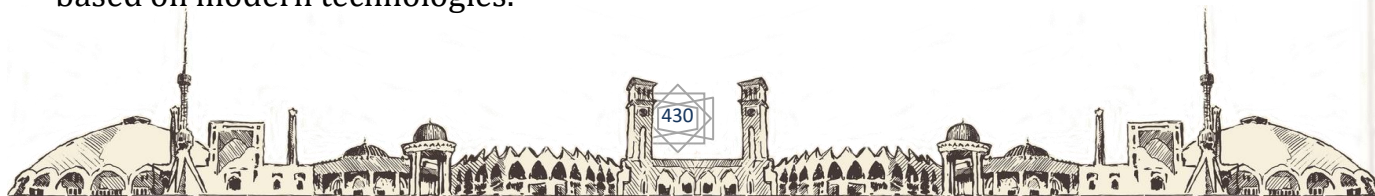
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Аннотация: В статье доказано, что число Брикса фруктового сока измеряется концентрацией сахарозы в растворе и наличием растворимого сухого остатка.

Ключевые слова: К собственным требованиям ДСТ, СанПиН, Товарная номенклатура, число Брикса, система сертификации QSAR, ТИФ ТН.

Introduction The expansion of the international economic relations of our country, the increase in the volume of movement of goods and the emergence of new problems related to quality and composition require a lot of urgent issues and their immediate solution. The solution of this will be the basis for the creation of state standards and specifications based on new advanced methods of inspection based on modern technologies.





It is known that the quality of food products, including wet fruits and fruit juices, meets the standards of physical and chemical parameters of carbon dioxide and alcohol in accordance with the requirements of the WHO.

Also, according to the physicochemical parameters of beverages, the difference in weight by weight, acidity, density, weight by moisture, compliance with the specified requirements, toxic elements: lead, arsenic, cadmium, mercury, copper, zinc; radionuclides: cesium-237, strontium-90 and caffeine should not exceed the specified level.

These normative documents do not take into account the control of quantitative norms of synthetic chemicals from the main physicochemical indicators that determine the quality of beverages.

Paragraph 1.8.5 of the Sanitary and Epidemiological Legislation of the Republic of Uzbekistan SanQM (SanPiN) 0138-03, Regulation of Food Safety, also includes only the quantitative norms of the above toxic elements.

The issuance of certificates of conformity by certification bodies is limited to the detection of heavy metals as the main criterion for their safety and quality. There are alarming reports of children suffering from liver disease and diseases of the digestive system, an increase in cancer among the population, consuming products added in unspecified concentrations from synthetic agents added to these foods.

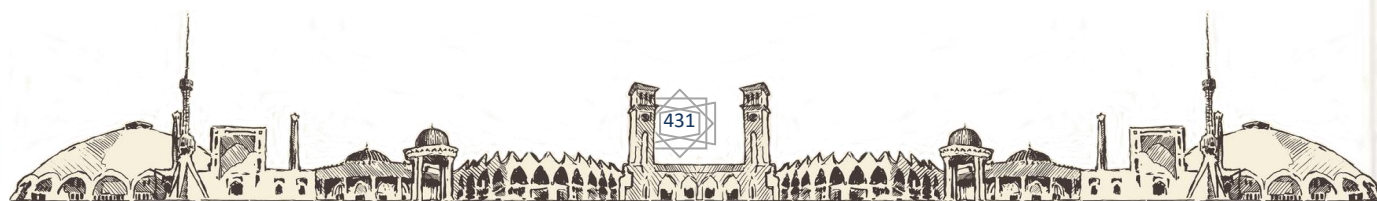
Imported, as well as non-alcoholic soft drinks produced in our country are mainly based on the preparation of various food additives.

The fact that the climate of the republic is hot and the duration of the summer is a bit longer also increases the demand of the population for thirst-quenching drinks. Taking advantage of the high demand and supply in the market, some counterfeiters try to import in various ways products that are unfit for consumption, ie synthetic preservatives and coloring synthetic dyes that ensure the long-term storage of the drink.

Such products imported to our country do not meet the standards of the country of origin. When issuing certificates of conformity, certification bodies should not only limit the detection of heavy metals as the main criterion for their safety and quality, but also control the amount of synthetic compounds.

It is known that producers, entrepreneurs, economic entities engaged in foreign economic activity in the implementation of foreign economic relations, ie in the process of export and import of goods on the basis of the Commodity Nomenclature of Foreign Economic Activity (TIF TN) classified and declared.

The application of the system of classification of goods on the basis of international law at the level of world standards is not only a requirement of the Harmonized System Convention, but also one of the main requirements of the World Trade Organization.





Therefore, a number of currently used state standards in the classification and certification of food products based on their chemical composition do not fully reflect the quality of food products, the modern level of development of technologies for their preparation.

For example, in determining the international code numbers of fruit juices in the Commodity Nomenclature of Foreign Economic Activity of the Republic of Uzbekistan in 2007, 20 groups of 2009 goods are classified by subheading 2009111100 - 2009909800.

2009 Sweet flavors and fruit juices (including grape juices) and vegetable juices without added sugar, fermented and without alcohol-containing additives:

- orange juice:

2009 11 - refrigerated:

- The number of briquettes is more than 67:

2009 11 110 - 100 kg net price, not exceeding 30 euros:

2009 11 190 - other:

200911190 1 - in barrels, cisterns, flexitankas with a concentrated volume of less

than 40 kg:

200911 190 9 - other:

- The number of briquettes was less than 67:

200911 910 - The price of a net mass of 0

-100 kg is not more than 30 euros and the amount of added sugar is not more than 30%:

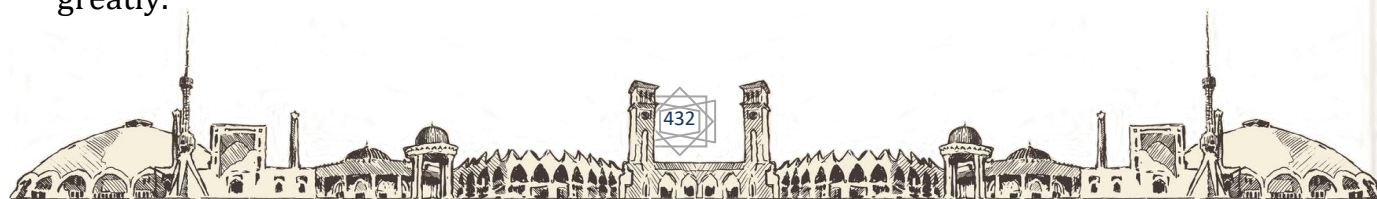
200911 990 - other: etc.

Fruit juices are thus coded with 130 code numbers ("Brix number greater than 67", "Brix number less than 67", "Brix number greater than 20", "Brix number less than 20", "Brix number greater than 20, but 67 less than », frozen, unfrozen, etc. are classified in the current TIF TN.

However, the fact that the products classified under these code numbers are classified without taking into account the chemical composition, is also the basis for the registration of low-quality, unfit for consumption products imported from abroad. Because the number of Brix, taken as the main indicator of fruit juices, is measured by the concentration of sucrose in solution and the presence of soluble dry residue.

When the chemical composition of several types of fruit juice samples was studied in the laboratory by physicochemical methods (chromatography, capillary electrophoresis, spectrophotometer), it was found that the addition of sugar to counterfeit products made of synthetic means increases the Brix index.

It is not uncommon for these juices to be sold at retail at high prices as natural fruit juices. It is natural that both consumers and local juice producers will suffer greatly.





Therefore, in the classification of fruit products, including fruit juices, according to international code numbers, their chemical composition is fully analyzed, and then the development of expert methods based on the achievements of the subject "Classification and certification of goods based on chemical composition" using modern equipment based on new technologies of coding, safety and quality and the implementation of certification is one of the urgent tasks of today.

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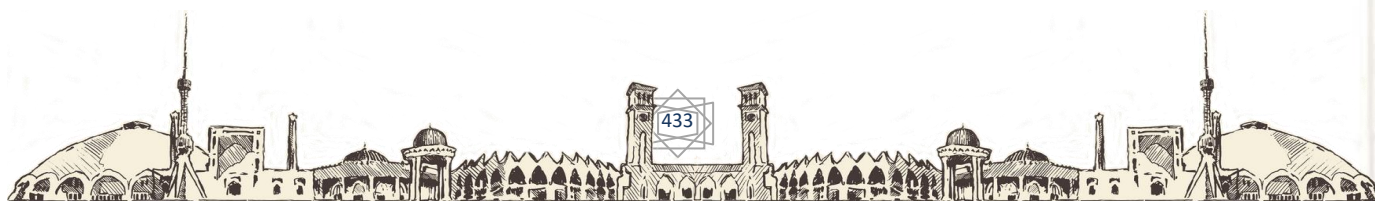
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