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**THE QUALITY ASSESSMENT OF LIQUID DETERGENTS FOR A
WARE IN THE CONTEXT OF COMPARATIVE TESTINGS**

In the conditions of globalization of economic processes, there is a consumers lack of qualitative and well-timed information.

The creation of an efficient system for informing about the safety of goods and services in Ukraine and about consumer protection is possible only by increasing consumer consciousness of Ukrainians. Informing consumers of the true position in the consumer market, about possible risks and danger of consumption - the main goal of comparative testings.

Liquid detergents for a ware are popular goods in Ukraine, traditionally used in every house. Because of the wide range of offers in the market an interest of consumers, in results of comparative testing, is high.

Comparative testing - the tests of goods and services which are carried out by the independent organizations of consumers for the purpose of studying consumer properties of production of this market segment by their comparison among themselves and informing consumers about the received results.

The liquid detergents for a ware for comparative testings were purchased in supermarkets of Kiev. Five examples (bottles) of liquid detergents for a ware

of various brands were selected: an example №1 – "Gala balsam", an example №2 – "Test" Juicy Lemon, an example №3 – "Fairy" Juicy lemon, an example №4 – "Pur", №5 – "Premia". For organoleptic researches was chosen the group of students (commodity researchers) of the fourth year of education of KNUTE.

Packing and marking of production were estimated immediately, at the same time authors paid an attention not only to the existence of necessary information but also to the declared structure of a product (tab. 1).

Table 1

The characteristic of the exemplars of detergents for washing of a ware

№	Name of product	Manufacturer, country	Composition	Packaging	The term, years
1.	Gala balsam	Ukraine Procter & Gamble	Anionic surfactants, mineral salts, nonionic surfactants, dyes, preservatives, flavor	Polymer bottle	1,5
2.	Test Juicy Lemon	Ukraine, Chemicals Industry	Purified water, sodium salt of linear alkyl benzene-sulfonic acid, betain, lauriletoksysulfat sodium, sodium chloride, citric acid, coloring agent, preservative, flavoring composition	Polymer bottle 500 ml	1,5
3.	Fairy Juicy Lemon	Russia, Procter & Gamble	5-15% anionic surfactants, hexyl, <5% non-ionic surfactants, flavors, preservatives, tsynamal, linalool	Polymer bottle 500 ml	1,5
4.	Pur	Ukraine, Henkel	Water, anionic surfactants, amphoteric surfactants, polymer, dye, preservative, sodium chloride, vitamin B ₅ , flavor	Polymer bottle 500 ml	3
5.	Premia	Ukraine, FreshUp	Demineralized water, surfactants, glycerin, sodium chloride, urea, preservative, flavors food, food dye	Polymer bottle 500 ml	3

All of 5 exemplars have batches and are pressure-tight. All liquid detergents for a ware are packed into PET-bottles, with a capacity of 500 ml. Fullest information is provided on the packing of liquid detergents for a ware of "Test" and "Pur": the method of application and messages on the harmlessness of the given means after the termination of a period of validity, a way of utilization is specified. Only on a bottle of "Test" and "Gala balsam" the complete information on application and purposes of a scour is provided. In such liquid detergents as "Gala balsam", "Premia", "Test" and "Pur" was absent

an information of a composition of raw materials of a product - the content of surfactants is not specified.

All specimens had an attractive appearance, convenient dosing. Preference about the container had samples which were packaged in colorless transparent bottles. By visual assessment, "Fairy" and "Premia" had the best detergent power. Hydrogen ionization value within 6-9 is characteristic for liquid detergents for a ware.

Assessment of physical and chemical indexes of liquid detergents for a ware is presented in the tab. 2.

Table 2

Results of comparative assessment of liquid detergents for a ware

Indicator	The name of the product				
	Gala balsam	Test Juicy Lemon	Fairy Juicy Lemon	Premia	Pur
pH	6,90	7,20	8,87	6,6	5,90
The specific conductivity, Ohm/cm	346	467	553	1075	572
Redox potential, mV	+155	+132	+100	+88	+258
Surface tension, mN/m	31	34	32	44	32
Foaming, mm	190	180	215	200	185
Conditional viscosity, min	17	16	17	15	21
Density, g/cm ³	1,028	1,026	1,026	1,056	1,036
Mass fraction of anionic surfactants,%	17,6	20,2	14,0	5,1	15,6
Mass fraction of solids,%	17,8	19,8	12,9	11,2	16,9
Washing capacity (visual assessment)	satisfactorily	satisfactorily	good	good	satisfactorily

Exemplars of liquid detergents for a ware can be divided into the following groups: with a low electrical conductivity - "Gala", average - "Test", "Fairy" and "Pur" and high - "Premia". The greatest lathering power has an examples "Gala", "Premia" and "Fairy", and the least - "Test", "Pur". The tested liquid detergents for a ware had density ranging from 1.03 ("Gala", "Test",

"Fairy", "Pur") to 1.06 g/cm³ ("Premia"). Pur had the largest size of redox potential, Solutions of liquid detergents for washing of a ware of "Gala", "Test", "Fairy" i "Pur" have approximately identical interfacial tension, and "Premia" is slightly higher that correlates with sizes of a mass fraction anion of the fissile surface-active substances.

For the quantitative test of the washed-up plates evenly applied a mix of fats (vegetable and animal origin) and allowed them to stiffen then passed to washing of this ware. A high quantitative index of "Fairy" and "Premia" which made 13 plates, the lowest – "Test" (10 plates).

In conclusion, results of comparative tests testify of an absence of leaders who completely would satisfy all needs of consumers. Possessing information of results of comparative testings, the consumer does not only use the independent rights, reliable and competent information about the quality of production but also has an opportunity to use the right for the choice which is carried out consciously and rationally on the basis of provided information.

Literature:

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