

MINISTRY OF ECONOMIC DEVELOPMENT AND TRADE OF UKRAINE

**STATE ENTERPRISE "UKRAINIAN STATE
RESEARCH AND PRODUCTION CENTER OF STANDARDIZATION,
METROLOGISTS,
CERTIFICATION AND CONSUMER PROTECTION"
(SUBSIDIARY "UKRMETRTESTSTANDARD")
RESEARCH CENTER OF TESTING OF PRODUCTS**

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APPROVE

Chief of research center

Candidate of chemical sciences

SEAL / MINISTRY OF ECONOMIC
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RESEARCH CENTER OF TESTING OF PRODUCTS/
signature _____ Voloshynets V.G.

March 22, 2013 year

**MINUTES
of testing of products
№ 2876-2877/13b**

National center of testing of products is certified by National agency of certification of Ukraine on competence according to requirements DSTU ISO/IEC 17025:2006

Certificate of accreditation № 2H677 dd. June 29, 2012 year.

Total sheets 3

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Ukrainian Scientific and Methodological Center for conformity and testing
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Executant KASPAROV, file P:\Prot_13\2877_13.doc

KYIV 2013

1. **Applicant:** «Studiopak Technology» LLC, Ukraine, 01042, Kyiv city, Patrisa Lumumby street 4/6, b. A, of 508

Task № 01335-17/13 dd. 12.03.2013 of Ukrainian scientific-methodical center of certification of concordance and testing of food products SC "Ukrmetrteststandart" for testing of products according to the letter of Applicant № 5 dd. 12.03.2013

2. **Object of testing and registration number:**

2876. One-used container made from aluminum foil rectangular under TUU 27.4-36756925-001:2010

2877 One-used container made from aluminum foil round under TY Y 27.4-36756925-001:2010

3. **Producer:** «Studiopak Technology» LLC, Ukraine, Kyiv region, Kyiv-Svyatoshyn district, v. Sofiivska - Borschagivka, Gorkogo Street 1A

Notes: name of products and producer is indicated according to act of selection of applicant.

4. **Act of selection of orders:** Samples were selected and delivered by representative of Applicant

5. **Date of receipt of samples for testing:** 13.03.2013

6. **Dates of testing:** 13.03.2013 -21.03.2013

7. **Results of testing:** are mentioned in the table

8. **Responsible executor:**

Chief of laboratory
Table

V.K. Kovtun

**RESULTS OF TESTING of sample № 2876 - 2877
under indexed of chemical safety**

| Name of indexes | Requirements of Conclusion of DSEE MHU № 05.03.02-04/49754 | Results of testing | Relative mistake of testing, % | Index of ND on methods of testing |
|--|--|----------------------|--------------------------------|-----------------------------------|
| 2876. One-used container made from aluminum foil rectangular Migration into diluted water | | | | |
| Migration of plumbum (Pb), mg/dm ³ | Not more than 0,03 | Not more than 0,01 | 10 | ISO 8288-83 Method B |
| Migration of cadmium (Cd), mg/dm ³ | Not more than 0,001 | Not more than 0,0005 | 10 | ISO 8288-83 Method B |
| Migration of aluminum (Al), mg/dm ³ | Not more than 0,5 | 0,20 | 25 | GOST 18165-89 |
| Міграція мангану (Mn), мг/дм ³ | Not more than 0,1 | 0,07 | 10 | GOST 24295-80, p.7 |
| Міграція хрому (Cr), мг/дм ³ | Not more than 0,1 | Not more than 0,02 | 10 | GOST 24295-80, p.7 |

Results of testing are related only with tested samples

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| | | | | |
|---|---------------------|----------------------|----|----------------------|
| Migration of copper (Cu), mg/dm ³ | Not more than 1,0 | Not more than 0,02 | 10 | GOST 24295-80, p.7 |
| Migration of zinc (Zn), mg/dm ³ | Not more than 1,0 | Not more than 0,02 | 10 | GOST 24295-80, p.7 |
| Migration of epichlorohydrin, mg/dm ³ | Not more than 0,1 | Not more than 0,02 | 10 | MUN№ 4149-86 |
| 2877 One-used container made from aluminum foil round Migration into diluted water | | | | |
| Migration of plumbum (Pb), Mg/dm ³ | Not more than 0,03 | Not more than 0,01 | 10 | ISO 8288-83 Method B |
| Migration of cadmium (Cd), mg/dm ³ | Not more than 0,00] | Not more than 0,0005 | 10 | ISO 8288-83 Method B |
| Migration of aluminum (Al), mg/dm ³ | Not more than 0,5 | 0,16 | 25 | GOST 18165-89 |
| Migration of Mangan (Mn), mg/dm ³ | Not more than 0,1 | 0,05 | 10 | GOST 24295-80, p.7 |
| Migration of chrome (Cr), mg/dm ³ | Not more than 0,1 | Not more than 0,02 | 10 | GOST 24295-80, p.7 |
| Migration of copper (Cu), mg/dm ³ | Not more than 1,0 | Not more than 0,02 | 10 | GOST 24295-80, p.7 |
| Migration of zinc (Zn), mg/dm ³ | Not more than 1,0 | Not more than 0,02 | 10 | GOST 24295-80, p.7 |
| Migration of epichlorohydrin, mg/dm ³ | Not more than 0,1 | Not more than 0,02 | 10 | MU № 4149-86 |

To determine the migration of toxic elements model fluid at temperature of 90 ° C was poured into the product and boiled for 30 minutes, then cooled and poured the liquid.

Methods and measuring devices used to determine safety parameters:

- Definition of migrating content of cadmium, copper, mangan, plumbum, chrome and zinc was measured by flame atomic absorption spectrometry for atomic absorptio spectrophotometer AAZ -6 Uahio (firm "ApaLuhik iepa AO", Germany);
- Definition of content of migration epichlorohydrin was measured by gas-liquid chromatography on chromatograph HP 6890 Riyz with input device with a static vapor phase HP 7694 Headspace Sampler (firm "Hewlett Packard ", USA).

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