Institute of Public Health in Ostrava
Centre of Hygienic Laboratories
CAI Accredited Testing Laboratory No. 1393
Partyzánské náměstí 7, 702 00 Ostrava

L 1393

TEST REPORT No. 48787/2012

Customer : NanoGT a.s.
U Pekáren 225
102 00 Praha 10

Set No. : 25218
Sample Received : 21.8.2012 11:00
Sample Analyzed : 21.8.2012 - 3.9.2012
Ref. No. : ZU/25233/2012
File No. : S-ZU/25233/2012
File code : 4.0.3

Sample No. : **79208**
Sampling date : Not mentioned
Sample name: **Nano suspension TiO2 - Smart Coat**- 95% ethanol
Sample amount : 4 pcs
Sample Type : Materials in contact with foodstuffs, subject of natural user, toys
Sampled by : Customer
Mode of sampling : Not mentioned
Purpose : on the request customers . Suspension will be used to coat the walls in food production.
Notice : The samples by custumer were prepared, the nanosuspension was spread on small glass plates.
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Results - chemical analysis

Parameter	Value	Unit	Kind	Method used	Uncertainty
Hg	<0,005	mg/kg	A	SOP OV 200.03 [2]	-
Ag	0,00110	mg/kg	A	SOP OV 201 [2]	±20%
As	<0,0000100	mg/kg	A	SOP OV 201 [2]	-
Ba	0,000434	mg/kg	A	SOP OV 201 [2]	±20%
Cd	0,0000350	mg/kg	A	SOP OV 201 [2]	±20%
Co	0,0000235	mg/kg	A	SOP OV 201 [2]	±20%
Cr	0,00185	mg/kg	A	SOP OV 201 [2]	±20%
Cu	0,000615	mg/kg	A	SOP OV 201 [2]	±20%
Fe	0,0430	mg/kg	A	SOP OV 201 [2]	±20%
Li (lithium)	0,0000700	mg/kg	A	SOP OV 201 [2]	±20%
Mn	0,000540	mg/kg	A	SOP OV 201 [2]	±20%
Pb	0,00140	mg/kg	A	SOP OV 201 [2]	±20%
Sb	0,0000250	mg/kg	A	SOP OV 201 [2]	±20%
Se	<0,000100	mg/kg	A	SOP OV 201 [2]	-
Ti	0,00101	mg/kg	A	SOP OV 201 [2]	±20%
Zn	0,00140	mg/kg	A	SOP OV 201 [2]	±20%

Notice to sampling : The sampling itself is not a subject of accreditation.

Notice to analysis :
Conditions of leaching: simulator 95% ethanol, for 1 hour, at temperature 40± 2°C, three times. Simulator volume of 200 ml was in contact with area of 200 cm2. The last (third) extract was analyzed.

Expertise and interpretations :

The sample (in the range of analysed parameters) meets the requirements of Regulation (EC) No 1935/2004 of the European Parliament and of the Council and Commission Regulation No. 10/2011.

Sample No. :	**79209**
Sampling date :	Not mentioned
Sample name:	**Nano suspensionTiO2 - Smart Coat**- 3% acetic acid
Sample amount :	4 pcs
Sample Type :	Materials in contact with foodstuffs, subject of natural user, toys
Sampled by :	Customer
Mode of sampling :	Not mentioned
Purpose :	on the request customers. Suspension will be used to coat the walls in food production.
Notice :	The samples by custumer were prepared, the nanosuspension was spread on small glass plates.

Results - chemical analysis

Parameter	Value	Unit	Kind	Method used	Uncertainty
Hg	<0,005	mg/kg	A	SOP OV 200.03 [2]	-
Ag	0,000200	mg/kg	A	SOP OV 201 [2]	±20%
As	<0,0000100	mg/kg	A	SOP OV 201 [2]	-
Ba	0,0000800	mg/kg	A	SOP OV 201 [2]	±20%
Cd	0,0000200	mg/kg	A	SOP OV 201 [2]	±20%
Co	<0,0000100	mg/kg	A	SOP OV 201 [2]	-
Cr	0,0180	mg/kg	A	SOP OV 201 [2]	±20%
Cu	0,000220	mg/kg	A	SOP OV 201 [2]	±20%
Fe	<0,00100	mg/kg	A	SOP OV 201 [2]	-
Li (lithium)	<0,0000100	mg/kg	A	SOP OV 201 [2]	-
Mn	0,0000600	mg/kg	A	SOP OV 201 [2]	±20%
Pb	0,0000500	mg/kg	A	SOP OV 201 [2]	±20%
Sb	<0,0000100	mg/kg	A	SOP OV 201 [2]	-
Se	<0,0000100	mg/kg	A	SOP OV 201 [2]	-
Ti	0,000500	mg/kg	A	SOP OV 201 [2]	±20%
Zn	<0,00100	mg/kg	A	SOP OV 201 [2]	-

Results - sensoric and qualitative analysis

Parameter	Description	Kind	Method used
taste	simulator: sour, no changes	A	SOP OV 124 [2]
apperance	simulator: clear, colorless liquid, no sediment no changes sample after leaching : no changes	A	SOP OV 124 [2]
Odour	simulator: free frmforeign odour, no changes	A	SOP OV 124 [2]

Notice to sampling : The sampling itself is not a subject of accreditation.

Notice to analysis :
Conditions of leaching: simulator 95% ethanol, for 1 hour, at temperature 40± 2°C, three times. Simulator volume of 200 ml was in contact with area of 200 cm2. The last (third) extract was analyzed.
Sensoric assessment: Sample was immersed in simulator of foodstuffs - 0,2% citric acid, for 1 hour, at temperature 40± 2°C, three times. The last (third) extract was evaluated.

Expertise and interpretations :

The sample (in the range of analysed parameters) meets the requirements of Regulation (EC) No 1935/2004 of the European Parliament and of the Council and Commission Regulation No. 10/2011.

Method specification :

SOP OV 200.03 (ČSN 75 7440)
SOP OV 201 (ČSN EN ISO 17294-1,ČSN EN ISO 17294-2)

Laboratory workplace :

(2) - Analyses performed at Ostrava (Partyzánské nám. 7, 702 00 Ostrava), tel: 00420 596 200 167, 111

Methods in KIND column: "A" accredited test

< - result is below the detection limit

Results deal with tested samples only.

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These expanded uncertainties of measurement are obtained by multiplying of standard uncertainty of measurement by extending coefficient k=2 (for confidence level 95%). Uncertainty of sampling not included.

Head of Hygienic Laboratories Center : Doškářová Šárka, RNDr.
Checked by : Němcová Vladimíra, Ing.
Completed by : Němcová Vladimíra, Ing.
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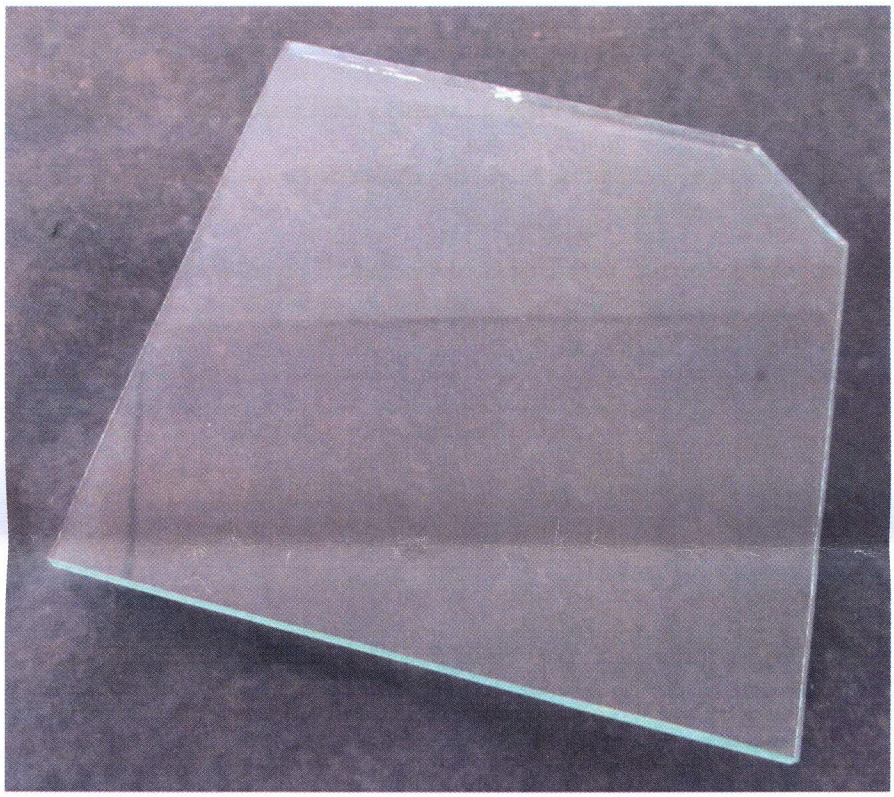
Zdravotní ústav se sídlem v Ostravě
Centrum hygienických laboratoří
Zkušební laboratoř akreditovaná ČIA č. 1393
Reg. č.: 5

Ing. Zdeňka Dardová
Head of Department of Sampling and Servicing

PŘÍLOHA č. 1 K PROTOKOLU č. 48787/2012



Vz. č. 79208-9