TÜV Rheinland LGA Products GmbH · 51101 Cologne

OOO «Egida +»
Gulnara Yakhina
Krasnokokshaiskaya Ul. 47
420032 Kazan
RUSSIAN FEDERATION

Contact Petra Van Dyck
E-Mail Petra.Van.Dyck@de.tuv.com
Phone +49 221/806-2129
Fax +49 221/806-2882
Cologne, 24.05.2018

Report No. 0003251792/60 AZ 301179

Test item:	One Foam
Identification:	Article name: Flexible foam Article No.: EL2036 Supplier name and number: "Egida+" ltd. Date stamp of article: 23 April 2018 Material / Component: Polyurethane Manufacturer's name: "Egida+" ltd.
Condition at delivery:	No claim
Date of delivery:	07.05.2018
Place of testing:	Cologne, Nuremberg
Test period:	15.05.2018 to 24.05.2018
Test scope:	Parameters selected by customer
Test specification:	IKEA IOS-MAT-0010 Vers. AA-10911-13 dated 2015-11-13/ IKEA IOS-MAT-0054 Vers. AA-92520-10 dated 2018-04-18
Test result:	Pass - According to the kind and extent of tests performed the test item meets the test specification.

Cologne, 24.05.2018

X Rothe

Sachverständige(r)/Expert
Signiert von: Annette Rothe

X P. Van Dyck

Sachverständige(r)/Expert
Signiert von: Petra Van Dyck

Report No.: 0003251792/60 AZ 301179
Date: 24.05.2018

1. Results

EN 71-3, Migration of certain elements, category 3

Sample No.	**301179-003**		
Sample composition	**Art. 1**		
Unit	mg/kg		
Soluble heavy metals			
Aluminium	<100		
Antimony	<5		
Arsenic	<1		
Barium	<100		
Boron	<10		
Cadmium	<0,1		
Chromium, total	<0,2		
Chromium (III)	<0,2		
Chromium(VI)	<0,2		
Cobalt	<1		
Copper	<10		
Lead	<1		
Manganese	<100		
Mercury	<1		
Nickel	<10		
Selenium	<5		
Strontium	<100		
Tin*	24		
Zinc	<100		

Legal limit values according to Directive 2009/48/EC:
Category 3:
Scraped-off toy material
aluminium 70000 mg/kg, antimony 560 mg/kg, arsenic 47 mg/kg, barium 18750 mg/kg, boron 15000 mg/kg, cadmium 17 mg/kg, chromium(III) 460 mg/kg, chromium(VI) 0,2 mg/kg, cobalt 130 mg/kg, copper 7700 mg/kg, lead 160 mg/kg, manganese 15000 mg/kg, mercury 94 mg/kg, nickel 930 mg/kg, selenium 460 mg/kg, strontium 56000 mg/kg, tin 180000 mg/kg, zinc 46000 mg/kg
According to Directive (EU) 2017/738 the limit value for lead will be decreased to 23 mg/kg. (valid from 28 October 2018).
According to Directive (EU) 2018/725 the limit value for chromium VI will be decreased to 0.053 mg/kg (valid from 18 November 2019).
*Tin: If the migration of tin is less than the reporting limit the compliance with the limit value of 12 mg/kg can be confirmed. The determination of tin-organic compounds is not required in regards to metals and all-mineral materials like glass, ceramics etc.

Report No.: 0003251792/60 AZ 301179
Date: 24.05.2018

EN 71-3, Migration of certain elements, organic tins as tributyltin equivalent

Sample No.	**301179-003.1**		
Sample composition	**Art. 1**		
Unit	mg/kg		
Sum of organic tins	n.n.		
Category	3		
Methyl tin (TBT-equivalent)	<0,04		
Monobutyl tin (TBT-equivalent)	<0,06		
Dibutyl tin (TBT-equivalent)	<0,06		
Tributyl tin	<0,02		
Tetrabutyl tin (TBT-equivalent)	<0,04		
n-Octyl tin (TBT-equivalent)	<0,04		
Di-n-octyl tin (TBT-equivalent)	<0,02		
Di-n-propyl tin (TBT-equivalent)	<0,02		
Diphenyl tin (TBT-equivalent)	<0,06		
Triphenyl tin (TBT-equivalent)	<0,12		
Tricyclohexyl tin (TBT-equivalent)	<0,06		
Dimethyl tin (TBT-equivalent)	<0,06		

n.n. not detectable

Legal limit values according to Directive 2009/48/EC:
Category 1:
Dry, brittle, powder-like or pliable toy material
Organic tin 0,9 mg/kg
Category 2:
Liquid or sticky toy material
Organic tin 0,2 mg/kg
Category 3:
Scraped-off toy material
Organic tin 12 mg/kg
*the scope of the stated parameters extends the scope of parameters listed in the DIN EN 71-3, because the migration limit of the Directive 2009/48/EC refers to organic tins in general. A harmonised list does not exist yet.

Lead total basic material, USA

Sample No.	**301179-005**		
Sample composition	**Art. 1**		
Unit	mg/kg		
Lead	<10		

Limit values:
40 mg/kg for polymerics (plastics, silicone, rubber, latex, elastomers), PU-foam, latex-foam, label
90 mg/kg for wood, natural materials, glass, ceramics, enamel

Report No.: 0003251792/60 AZ 301179
Date: 24.05.2018

Organotin compounds

Sample No.	**301179-002**		
Sample composition	**Art. 1**		
Unit	mg/kg		
Organotin compounds, total	n.n.		
Monobutyltin, MBT	<0,005		
Dibutyltin, DBT	<0,005		
Tributyltin, TBT	<0,005		
Tetrabutyltin, TeBT	<0,005		
Monooctyltin, MOT	<0,005		
Dioctyltin, DOT	<0,005		
Tricyclohexyltin, TcyT	<0,005		
Triphenyltin, TPhT	<0,005		
Di-n-propyl tin	<0,005		
Diphenyl tin	<0,005		

Limit values:
DBT and TBT 0,1 mg/kg each
Sum of all organotin compounds 2,5 mg/kg

Report No.: 0003251792/60 AZ 301179
Date: 24.05.2018

Phthalates, CPSC

Sample No.	**301179-004**		
Sample composition	**Art. 1**		
Unit	mg/kg		
Phthalates, total	n.n.		
Dimethylphthalate, DMP	<50		
Diethylphthalate, DEP	<50		
Dipropylphthalate, DPP	<50		
Dibutylphthalate, DBP	<50		
Diisobutylphthalate, DIBP	<50		
Di-n-pentylphthalate, DnPP	<50		
n-Pentyl-isopentyl phthalate, PiPP	<50		
Diisopentylphthalate DiPP	<50		
Di-n-hexyl phthalate, DNHP	<50		
Dicyclohexylphthalate, DCHP	<50		
Benzylbutylphthalate, BBP	<50		
1,2-Benzenedicarboxylic acid, di-C6 -8-branched alkyl esters, C7-rich, DIHP	n.n.		
1,2-benzenedicarboxylic acid, di-C7-11-branched and linear alkyl ester, DHNUP	n.n.		
Bis-(2-ethylhexyl)phthalate, DEHP	<50		
Di-n-octylphthalate, DNOP	<50		
Di-n-nonyl phthalate, DnNP	n.n.		
Diisononylphthalate, DINP	<50		
Diisodecylphthalate, DIDP	<50		
Bis-(2-methoxyethyl) phthalate, BMEP	<50		
Bis(2-n-butoxyethyl)phthalate, BBEP	<50		
Bis(4-methyl-2-pentyl)phthalate, BMPP	<50		
Bis(2-ethoxyethyl)phthalate, BEEP	<50		
Butyloctylphthalate	<50		
Hexyl-2-ethylhexylphthalate, HEHP	<50		
Diphenylphthalate	<50		
Dibenzylphthalate	<50		
1,2-Benzenedicarboxylic acid, di-C7-9-branched and linear alkyl esters	n.n.		
1,2-Benzenedicarboxylic acid, di-C9-11-branched and linear alkyl esters	n.n.		

n.n. not detectable

Limit values: 100 mg/kg per compound, 250 mg/kg total

Report No.: 0003251792/60 AZ 301179
Date: 24.05.2018

TDA and MDA

Sample No.	**301179-001**		
Sample composition	**Art. 1**		
Unit	mg/kg		
2,4-Toluylendiamine	<1		
2,6-Toluylendiamine	<1		
2,2-Diaminodiphenylmethane	<1		
2,4-Diaminodiphenylmethane	<1		
4,4´-Diaminodiphenylmethane	<1		

Limit value 5 mg/kg per compound

Report No.: 0003251792/60 AZ 301179
Date: 24.05.2018

Volatile organic compounds, tenax-method

loading:	1,0	m²/m³	
exchange of air:	1,0	/h	
temperature:	23	°C	
relative humidity:	50	%	
sampling:		nach ISO 16000-6/-9	
start of sampling in chamber	48	h	

Sample No.	**Info**		**301179_007**
Sample Name			**006) Art. 1**
	CMR 1A/B Einstufung nach GHS[1)]	**CAS Nr.**	**µg/m³**
aromatic hydrocarbons			
phenol	Muta.2	108-95-2	<1
amines and amides			
formamide	Repr.1B	75-12-7	<1

limit of quantification:
calibrated substances 1 µg/m³ substance specific
*not calibrated substances 5 µg/m³ quantified as the toluene equivalent, semi quantitative
** most likely library proposal, quantified as toluene equivalent
***value out of calibrated range, semi quantitative
RT: retention time
1)Classification according to Part 3 of Annex VI of (EC) No 1272/2008 incl. amendments, for the purposes of its adaptation to technical and scientific progress (ATP)

Report No.: 0003251792/60 AZ 301179
Date: 24.05.2018

2. Summary of methods

EN 71-3, Migration of certain elements, category 3	Standard: EN 71-3:2013+A2:2017	Issue date: 09.08.17

Method description: Safety of toys - Part 3: Migration of certain elements and chromium(VI) from toy materials of category III. Analysis by ICP-MS according to DIN EN ISO 17294-2 respectively chromium(VI) after pre-column accumulation and post-column derivatisation by ion chromatography

EN 71-3, Migration of certain elements, organic tins as tributyltin equivalent	Standard: EN 71-3:2013+A2:2017	Issue date: 09.08.17

Method description: Safety of toys - Part 3: Migration of certain elements, determination of organic tins - Results are stated as tributyltin equivalent according to part 9.3. Quantification by GS-MS
Notes: Single components with an amount below the detection limit are not included in the calculation of the sum. In case that all components are not detected, the result is n.d. (not detectable).

Lead total basic material, USA	Standard: MS-0022823	Issue date: 24.01.18

Method description: Determination of the total content of lead after decomposition according to ASTM E 1645-01 (Standard Practice for Preparation of Dried Paint Samples by Hotplate or Microwave Digestion for Subsequent Lead Analysis), quantification by ICP according to ASTM E 1613-12 (Standard Test Method for Determination of Lead by Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES), Flame Atomic Absorption Spectrometry (FAAS), or Graphite Furnace Atomic Absorption Spectrometry (GFAAS) Techniques), as far as possible identical to CPSC-CH-E1002-08

Organotin compounds		

Method description: In-house method - Determination of organotin compounds after extraction with methanolic solvent and derivatisation. Quantification by GC-MS
Notes: Quantification equates the DIN EN ISO 17353.

Phthalates, CPSC		

Method description: Determination of selected phthalates after extraction with organic solvent, quantification by GC-MS according to: CPSC-CH-C1001-09.3
Notes: Not quantifiable compounds e.g. technical mixtures or isomers are marked with *. The indication of results for non quantifiable compounds is d = detected. In the report only the quantifiable respectively detected compounds are stated, however all listed compounds are analysed.

Report No.: 0003251792/60 AZ 301179
Date: 24.05.2018

TDA and MDA		

Method description:
Determination of TDA and MDA after extraction with 0,1% acetic acid, afterwards derivatization with pentafluoropropionic acid anhydride (PFPA) and quantification by LC-MS according to Analytica Chimica Acta 510 (2004) 109-119, deviation in sample preparation 0,4 g on 6 ml

Volatile organic compounds, tenax-method	**Standard: DIN ISO 16000-6**	**Issue date: 01.12.04**

Method description:
Indoor air - Part 6: Determination of volatile organic compounds in indoor and chamber air by active sampling on TENAX TA, thermal desorption and gas-chromatography MSD/FID

Volatile organic compounds, tenax-method	**Standard: DIN ISO 16000-6**	**Issue date: 01.12.04**

Method description:
Indoor air - Part 6: Determination of volatile organic compounds in indoor and chamber air by active sampling on TENAX TA, thermal desorption and gas-chromatography MSD/FID. Test conditions: conditioning 48h, loading 1m²/m³, air change 1/h

----End of report----