



Labor Dr. Fülling GmbH & Co. KG

Chemische und mikrobiologische Untersuchungen

Labor Dr. Fülling GmbH & Co. KG • Remscheider Straße 178 • 42899 Remscheid

Dyrup A/S
TSA 63577
Libeth Scharff
Gladsaxevej 300

DK 2860 Denmark, Soeborg

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Von der Industrie- und Handelskammer
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our reference: Date:
182076-2a_eng/Fu 26.03.2018

Test report for chemical investigation

sample receipt date : 08.03.2018
examination period : 08.03.2018 - 23.03.2018

delivered by : Dyrup A/S TSA 63577

Sample sign: 33XX45 Bondex Premium

The results related only to the test sample.

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Investigation according to DIN EN 71-3 „Safety of toys – Part 3: Migration of certain elements“**sample preparation**

The varnish was put on a glass surface and dried. The dried material was scraped of and extracted.

**Determination of elements by ICP-MS (DIN EN ISO 17294-2) and ICP-OES (DIN EN ISO 11885)
Investigation of the hydrochloric acid extract (0.07 m HCl) according to DIN EN 71-3
(contents relating to the original matter)**

sample sign		33XX45 Bondex Premium	Limit category III	LoQ	method
aluminium	mg/kg	< 5	70000	5	DIN EN ISO 17294-2:2017-01
antimony	mg/kg	< 1	560	1	DIN EN ISO 17294-2:2017-01
arsenic	mg/kg	< 0,5	47	0,5	DIN EN ISO 17294-2:2017-01
barium	mg/kg	< 5	18750	5	DIN EN ISO 17294-2:2017-01
lead	mg/kg	< 1	160	1	DIN EN ISO 17294-2:2017-01
boron	mg/kg	< 5	15000	5	DIN EN ISO 17294-2:2017-01
cadmium	mg/kg	< 0,1	17	0,1	DIN EN ISO 17294-2:2017-01
chromium	mg/kg	< 1		1	DIN EN ISO 17294-2:2017-01
cobalt	mg/kg	< 1	130	1	DIN EN ISO 17294-2:2017-01
copper	mg/kg	< 1	7700	1	DIN EN ISO 17294-2:2017-01
manganese	mg/kg	< 5	15000	5	DIN EN ISO 17294-2:2017-01
nickel	mg/kg	< 1	930	1	DIN EN ISO 17294-2:2017-01
mercury	mg/kg	< 0,5	94	0,5	DIN EN ISO 17294-2:2017-01
selenium	mg/kg	< 1	460	1	DIN EN ISO 17294-2:2017-01
strontium	mg/kg	< 5	56000	5	DIN EN ISO 11885:2009-09
zinc	mg/kg	< 5	46000	5	DIN EN ISO 17294-2:2017-01
tin	mg/kg	< 5	180000	5	DIN EN ISO 17294-2:2017-01

**Photometric determination of chromium-VI according to DIN EN ISO 18412 :2006
Investigation of the hydrochloric acid extract (0.07 m HCl) according to DIN EN 71-3
(contents relating to the original matter)**

sample sign		33XX45 Bondex Premium	Limit category III	LoQ	method
Chromium (VI)	mg/kg	< 0,1	0,2	0,1	DIN EN ISO 18412:2006

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Determination of organo tin compounds according to DIN EN 71-3 : 2017
Investigation of the hydrochloric acid extract (0.07 m HCl) according to DIN EN 71-3
(contents relating to the original matter)

sample sign		33XX45 Bondex Premium	Limit category III	LoQ
dimethyl tin	mg/kg	< 0,05		0,05
monomethyl tin	mg/kg	< 0,05		0,05
di-n-propyl tin	mg/kg	< 0,05		0,05
monobutyl tin	mg/kg	< 0,05		0,05
dibutyl tin	mg/kg	< 0,05		0,05
tributyl tin	mg/kg	< 0,05		0,05
monooctyl tin	mg/kg	< 0,05		0,05
tetrabutyl tin	mg/kg	< 0,05		0,05
dioctyl tin	mg/kg	< 0,05		0,05
tricyclohexyl tin	mg/kg	< 0,05		0,05
trimethyl tin	mg/kg	< 0,05		0,05
trioctyl tin	mg/kg	< 0,05		0,05
diphenyl tin	mg/kg	< 0,05		0,05
triphenyl tin	mg/kg	< 0,05		0,05
sum of organo tin compounds calculated as tributyl tin (TBT)	mg/kg	< 0,2	12	

LoQ = Limit of Quantitation

Judgement

The tested materials meet the requirements according to DIN EN 71-3 „Safety of toys – Part 3: Migration of certain elements“ for category III (threadbare materials).

signature



Dr. M. Dierkes (laboratory manager)