



GRATNELLS LTD
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UNITED KINGDOM

Test Report No. BTO 275817/2
Issue Date: 23rd January 2020

Attn: Anthony Byrne

The following sample was submitted and identified by the client as:

Sample Name: Gratnells Biobased Trays
Sample Description: Plastic trays, 31x26x15 cm.
Sample Submitted: 15th January 2020
Testing Period: Testing conducted between 20th January 2020 and 23rd January 2020
(Please note that this testing was conducted at another laboratory within the SGS group of companies)
Tests Requested: Please refer to the result summary.
Test Method & Results: Please refer to next page(s)

Result Summary:

Test Requested	Conclusion
Directive 2009/48/EC and its Amendment Council Directive (EU) 2017/738, Commission Directive (EU) 2018/725 – EN71-3:2019 Migration of certain elements	PASS

Signed for and on behalf of
SGS United Kingdom Ltd.

.....
Chris Walker, BSc (Hons)
Technical Manager

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APPENDIX

Test Results:

Directive 2009/48/EC and its Amendment Council Directive (EU) 2017/738, Commission Directive (EU) 2018/725 – EN71-3:2019 Migration of certain elements

Category III: Scraped-off toy material

Method: With reference to EN 71 Part 3: 2019. Analysis of general elements was performed by ICP- OES. Chromium (III) was obtained by calculation, chromium (VI) was analysed by IC-UV/VIS.

Test Item(s)	Result(s) (mg/kg)	Reporting Limit (mg/kg)	Permissible Limit (EN71-3:2019) (mg/kg)
Specimen No.	A1	-	-
Mass of trace amount (mg)	--	-	-
Soluble Aluminium (Al) (mg/kg)	ND	50	70,000
Soluble Antimony (Sb) (mg/kg)	ND	10	560
Soluble Arsenic (As) (mg/kg)	ND	10	47
Soluble Barium (Ba) (mg/kg)	ND	50	18,750
Soluble Boron (B) (mg/kg)	ND	50	15,000
Soluble Cadmium (Cd) (mg/kg)	ND	5	17
Soluble Chromium (Cr) (mg/kg)	0.14	0.053	--
Soluble Chromium(III) (Cr (III)) (mg/kg)	ND	5	460
Soluble Chromium(VI) (Cr(VI)) (mg/kg)	ND	0.053	0.053
Soluble Cobalt (Co) (mg/kg)	ND	10	130
Soluble Copper (Cu) (mg/kg)	ND	50	7,700
Soluble Lead (Pb) (mg/kg)	ND	10	23
Soluble Manganese (Mn) (mg/kg)	ND	50	15,000
Soluble Mercury (Hg) (mg/kg)	ND	10	94
Soluble Nickel (Ni) (mg/kg)	ND	10	930
Soluble Selenium (Se) (mg/kg)	ND	10	460
Soluble Strontium (Sr) (mg/kg)	ND	50	56,000
Soluble Tin (Sn) (mg/kg)	ND	4.9	180,000
Soluble Organic Tin^ - (mg/kg)	--	--	12
Soluble Zinc (Zn) (mg/kg)	ND	50	46,000
Conclusion	PASS	--	--

Specimen Description:

A1 Light grey plastic main

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Note:

- mg/kg = milligram per kilogram
- ND = Not Detected
- 1% = 10000mg/kg = 10000ppm

- ^ Confirmation test of soluble organic tin is not required in case of soluble tin, after conversion, does not exceed the soluble organic tin requirements as specified in EN71-3:2019



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*** End of Report ***

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