



CONSUMER PRODUCTS SERVICES DIVISION

## GRATNELLS LLC

**Technical Report:** (5120)017-0104  
Date Received: FEBRUARY 11, 2020

February 27, 2020  
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CLEARWATER, FL 33762  
UNITED STATES

Sample Description:	GRATNELLS TRAYS	Sample Size:	12
Vendor:	GRATNELLS LTD.	Style No(s):	/
Manufacturer:	GRATNELLS LLC.	SKN/SKU No.:	F0106
Buyer:	/	PO No.:	200107_01
Labeled Age Grade:	NOT PRESENT	Ref #:	/
Appropriate Age Grade:	CHILDREN PRODUCTS, OVER 3 YEARS OF AGE	Country of Origin:	UK
Client Specified Age Grade:	/	Assortment No.:	/
Tested Age Grade:	CHILDREN PRODUCTS, OVER 3 YEARS OF AGE		
UPC Code:	5060138366527		

### **EXECUTIVE SUMMARY:**

The sample(s) MEETS the following requirement(s):

- The mechanical hazards requirements of ASTM F963-17, "Standard consumer safety specification for toy safety".
- The initial total heavy metals content analysis for soluble heavy metals content in substrate requirements of ASTM F963-17, "Standard Consumer Safety Specification for Toy Safety," Section 4.3.5.2(2)(b).
- The total lead content of 100ppm requirements by composite testing in substrate materials (Consumer Products Safety Improvement Act (CPSIA) of 2008).
- The total lead content of 90ppm requirements of 16 CFR 1303, "Ban of lead-containing paint and certain consumer products bearing lead-containing paint" as mandated by Congress in section 101(f) of the Consumer Products Safety Improvement Act (CPSIA) of 2008, Public Law 110-314.
- The flame retardant content requirements of the Washington Children's Safe Products Act (CSPA) - RCW Chapter 70.240.025.
- The chemical content requirement of the client's specification with reference to the Chemicals of High Concern to Children (CHCCs) Content as Contaminant - Vermont Statutes Annotated (V.S.A.), Title 18, Chapter 38A Chemicals of High Concern to Children.
- The phthalate content in requirement of the client's specifications.
- The phthalates (BBP, DBP, DEHP, DINP, DIBP, DPENP, DHEXP & DCHP) content requirements of the Consumer Product Safety Improvement Act (CPSIA) of 2008 Sec. 108(a) and 108(c), 16 CFR 1307).

**Note:** The received sample(s) contained accessible material(s) of less than 10 milligrams by weight on one single sample, therefore such material(s) was not subject to the heavy metals analysis of ASTM F963-17, "Standard consumer safety specification on toy safety", Section 4.3.5.1(2) and 4.3.5.2, as specified in Section 8.3.3.6(2) and Section 8.3.5.3(2).



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Bureau Veritas  
Consumer Products Services, Inc.

Michael K. Trometer, Jr.  
Associate Product Engineer,  
Toy and Juvenile Products Department

/cq



**RESULTS:**

**FLAME RETARDANTS CONTENT (Washington Children's Safe Product Act (CSPA) – RCW Chapter 70.240.025)**

Sample Identity	Color / Component	Location	Style
A.	Blue printed translucent plastic Blue plastic	Lid Tray	2 1

Analyte:	TDCPP	TCEP	DecaBDE	HBCDD	TBBPA	
Limit (%):	0.1	0.1	0.1	0.1	0.1	

Analyte	TDCPP	TCEP	DecaBDE	HBCDD	TBBPA	Conclusion
Sample	Result (mg/kg)					
A.	LT 0.0005	LT 0.0005	LT 0.0005	LT 0.0005	LT 0.0005	PASS

ND = none detected with the detection limit at 5 mg/kg  
 TDCPP = Tris(1,3-dichloro-2-propyl) phosphate  
 TCEP = Tris(2-chloroethyl) phosphate  
 DecaBDE = Decabromodiphenyl Ether

LT = Less than  
 HBCDD = Hexabromocyclododecane  
 TBBPA = Tetrabromobisphenol



**RESULTS:**

**PHTHALATES CONTENT IN CHILDREN'S TOYS AND CHILD CARE ARTICLES (Consumer Product Safety Improvement Act (CPSIA) of 2008, Section 108(a) and 108(c), 16 CFR 1307)**

**Test Method:** With reference to U. S. CPSC-CH-C1001-09.3 (April 1, 2010) / CPSC-CH-C1001-09.4 (January 17, 2018).

Sample Identity	Color / Component	Location	Style
A.	Blue coating	Lid	2
B.	Translucent plastic Blue plastic	Lid Tray	2 1

Test Parameter:	Listed Phthalates (See Remark)		
Requirement:	Each 0.1%		
Sample ID	Detected Analyte	Concentration (%)	Conclusion
A.	ND	ND	PASS
B.	ND	ND	PASS

*Results reported in percentage*  
*ND = None detected*  
*Detection Limit: Each Phthalate (0.005%)*

LIST OF RESTRICTED PHTHALATES		
Number	Chemical Name	CAS Number
1.	Butyl benzyl phthalate (BBP)	85-68-7
2.	Dibutyl phthalate (DBP)	84-74-2
3.	Di(2-ethylhexyl) phthalate (DEHP)	117-81-7
4.	Di-iso-nonyl phthalate (DINP)	28553-12-0 & 68515-48-0
5.	Di-iso-butyl phthalate (DIBP)	84-69-5
6.	Di-n-pentyl phthalate (DPENP or DnPP)	131-18-0
7.	Di-n-hexyl phthalate (DHEXP or DnHP)	84-75-3
8.	Dicyclohexyl phthalate (DCHP)	84-61-7



**RESULTS:**

**8 PHTHALATES CONTENT (Client's Specification)**

Sample Identity	Color / Component	Location	Style
A.	Blue coating	Lid	2
B.	Translucent plastic Blue plastic	Lid Tray	2 1

Test Parameter:	Listed Phthalates (See Remark)		
Requirement:	Each 0.1%		
Sample ID	Detected Analyte	Concentration (%)	Conclusion
A.	ND	ND	PASS
B.	ND	ND	PASS

*Remark:*

<i>BBP (CAS No: 85-68-7)</i>	<i>= Butyl benzyl phthalate</i>
<i>DBP (CAS No: 84-74-2)</i>	<i>= Dibutyl phthalate</i>
<i>DEHP (CAS No: 117-81-7)</i>	<i>= Di(2-ethylhexyl) phthalate</i>
<i>DnOP (CAS No: 117-84-0)</i>	<i>= Di-n-octyl phthalate</i>
<i>DIDP (CAS No: 26761-40-0 &amp; 68515-49-1)</i>	<i>= Di-iso-decyl phthalate</i>
<i>DINP (CAS No: 28553-12-0 &amp; 68515-48-0)</i>	<i>= Di-iso-nonyl phthalate</i>
<i>DCHP (CAS No: 84-61-7)</i>	<i>= Dicyclohexyl phthalate</i>
<i>DIBP (CAS No: 84-69-5)</i>	<i>= Di-iso-butyl phthalate</i>

*Results reported in percentage*  
*ND = None detected*  
*Detection Limit: Each Phthalate (0.005%)*





**RESULTS:**

**Chemicals of High Concern to Children (CHCCs) Content as Contaminant - Vermont Statutes Annotated (V.S.A.), Title 18, Chapter 38A Chemicals of High Concern to Children**

**APPENDIX**

List of Chemicals of High Concern to Children (CHCCs) [ Vermont Statutes Annotated (V.S.A.), Title 18, Chapter 38A ] :					
No.	Name of Analyte(s)	CAS-No.	No.	Name of Analyte(s)	CAS-No.
10	1,1,2,2-Tetrachloroethane	79-34-5	53	4-tert-Octylphenol (tert-4-OP) ( 4-Octylphenol ); 1,1,3,3-Tetramethyl-4-butylphenol	140-66-9
11	Tetrabromobisphenol A (TBBPA)	79-94-7	54	Estragole	140-67-0
12	Bisphenol A (BPA)	80-05-7	55	2-Ethylhexanoic acid	149-57-5
13	Bisphenol S (BPS)	80-09-1	56	Pentadecafluorooctanoic acid (PFOA) and related substances	335-67-1
14	Dicyclohexyl phthalate (DCHP)	84-61-7	57	Octamethylcyclotetrasiloxane (D4)	556-67-2
15	Diethyl phthalate (DEP)	84-66-2	58	Pentachlorobenzene	608-93-5
16	Di-iso-butyl phthalate (DIBP) ( Diisobutyl phthalate )	84-69-5	59	Bisphenol F (BPF)	620-92-8
17	Di-n-butyl phthalate (DBP) ( Dibutyl phthalate )	84-74-2	60	C.I. solvent yellow 14	842-07-9
18	Di-n-hexyl phthalate (DnHP)	84-75-3	61	n-Methyl-2-pyrrolidone (NMP) ( N-Methylpyrrolidone )	872-50-4
19	Phthalic anhydride	85-44-9	62	Decabromodiphenyl ether (DecaBDE or BDE-209)	1163-19-5
20	Butyl benzyl phthalate (BBP)	85-68-7	63	Ethylhexyl diphenyl phosphate (EHDPP)	1241-94-7
21	N-Nitrosodiphenylamine	86-30-6	64	Tricresyl phosphate	1330-78-5
22	Hexachlorobutadiene	87-68-3	65	Perfluorooctane sulfonic acid (PFOS) and its salts	1763-23-1
23	Propyl paraben	94-13-3	66	4-n-Octylphenol (4-OP) ( 4-Octylphenol )	1806-26-4
24	Butyl paraben	94-26-8	67	2-Ethyl-hexyl-4-methoxycinnamate	5466-77-3
25	o-Toluidine ( 2-Aminotoluene )	95-53-4	68	Lead & lead compounds	7439-92-1
26	4-Methyl-m-phenylenediamine ( 2,4-Toluenediamine )	95-80-7	69	Mercury (Hg) and its compounds including methyl mercury (CAS-No. 22967-92-6)	7439-97-6
27	Methyl paraben	99-76-3	70	Molybdenum & molybdenum compounds	7439-98-7
28	p-Hydroxybenzoic acid ( 4-Hydroxybenzoic acid )	99-96-7	71	Antimony (Sb) and its compounds	7440-36-0



**RESULTS:**

**Chemicals of High Concern to Children (CHCCs) Content as Contaminant - Vermont Statutes Annotated (V.S.A.), Title 18, Chapter 38A Chemicals of High Concern to Children**

**APPENDIX**

List of Chemicals of High Concern to Children (CHCCs) [ Vermont Statutes Annotated (V.S.A.), Title 18, Chapter 38A ] :					
No.	Name of Analyte(s)	CAS-No.	No.	Name of Analyte(s)	CAS-No.
29	Ethylbenzene	100-41-4	72	Arsenic (As) and its compounds including arsenic trioxide (CAS-No. 1327-53-3) and dimethyl arsenic (CAS-No. 75-60-5)	7440-38-2
30	Styrene	100-42-5	73	Cadmium (Cd) and its compounds	7440-43-9
31	4-Nonylphenol; 4-NP and its isomer mixtures including CAS 84852-15-3 and CAS 25154-52-3	104-40-5	74	Cobalt (Co) and its compounds	7440-48-4
32	4-Chloroaniline ( para-Chloroaniline )	106-47-8	75	Tris(1-chloro-2-propyl) phosphate (TCPP)	13674-84-5
33	Acrylonitrile	107-13-1	76	Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)	13674-87-8
34	Ethylene glycol	107-21-1	77	Butylated hydroxyanisole (BHA)	25013-16-5
35	Toluene	108-88-3	78	Hexabromocyclododecane (HBCDDs or HBCD)	25637-99-4
36	Phenol	108-95-2	79	Bis(2-Ethylhexyl)-2,3,4,5-tetrabromophthalate (TBPH) ( Bis (2-ethylhexyl) Tetrabromophthalate )	26040-51-7
37	2-Methoxyethanol	109-86-4	80	Di-iso-decyl phthalate (DIDP) ( Diisodecyl phthalate )	26761-40-0
38	2-Ethoxyethanol ( Ethylene glycol monoethyl ether )	110-80-5	81	Di-iso-nonyl phthalate (DINP) ( Diisononyl phthalate )	28553-12-0
39	Triphenyl phosphate (TPP)	115-86-6	82	2,2-Bis(chloromethyl) trimethylene bis(bis(2-chloroethyl) phosphate) (V6) ( Bis(chloromethyl)propane-1,3-diyl tetrakis-(2-chloroethyl) bis(phosphate) )	38051-10-4
40	Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	83	Isopropylated triphenyl phosphate (IPTPP)	68937-41-7
41	Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	84	Decabromodiphenyl ethane (DBDPE)	84852-53-9
42	Dimethoxyethyl phthalate ( Di-(2-methoxyethyl) phthalate )	117-82-8	85	Short chain chlorinated paraffins (C10 - C13) (SCCPs)	85535-84-8
43	Di-n-octyl phthalate (DNOP)	117-84-0	86	2-Ethylhexyl tetrabromobenzene (TBB) (2-ethylhexyl-2,3,4,5-tetrabromobenzoate )	183658-27-7

CAS-No. = Chemical Abstracts Service registry number





**RESULTS:**

**TOTAL LEAD CONTENT IN SURFACE COATING BY COMPOSITE TESTING ("Ban of Lead-containing paint and certain consumer products bearing Lead-containing paint", Consumer Product Safety Improvement Act (CPSIA) of 2008)**

**Test Method:** U.S. CPSC-CH-E1003.09.1:2011

Element:				Lead		
Requirement: Maximum allowable limit:				90 mg/kg		
Sample Description				Result (mg/kg)		Conclusion
Color / Component		Location	Style	Overall	Potential	
(A)	Blue coating	Lid	2	LT 10	-	PASS

LT = Less Than

\* = Average of duplicate analyses

mg/kg = milligrams per kilogram (ppm = parts per million)

Potential = Estimated lead content per component is based on calculation by component individual weight

**TOTAL LEAD CONTENT IN SUBSTRATE BY COMPOSITE TESTING (100PPM) (Consumer Product Safety Improvement Act (CPSIA) of 2008)**

**Test Method:** U.S. CPSC-CH-E1001-08.3:2012 or U.S. CPSC-CH-E1002-08.3:2012

Analyte	Lead	
Requirement: Maximum allowable limit:	100 mg/kg	

Analyte			Lead (Pb)		Conclusion
Sample Description			Result		
Color / Component		Location	Style	(mg/kg)	
(A)	Translucent plastic	Lid	2	LT 10	PASS
	Blue plastic	Tray	1		

LT = Less Than

\* = Average of duplicate analyses

mg/kg = milligrams per kilogram (ppm = parts per million)



**RESULTS:**

**TOTAL HEAVY METALS CONTENT – INITIAL ANALYSIS FOR SOLUBLE HEAVY METALS CONTENT IN SUBSTRATE (ASTM F963-17, Section 4.3.5.2(2)(b))**

**Test Method:** ASTM International Standard ASTM F963-17, Section 8.3.1 and Annex A7.

Sample Identity	Color	Location	Style
Type I: Substrate other than modeling clay			
A.	Translucent plastic Blue plastic	Lid Tray	2 1

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se
Max. Limit Type I (mg/kg)	25	1000	75	60	60	90	60	500
Max. Limit Type II (mg/kg)	25	250	50	25	25	90	60	500

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se	Conclusion
Sample	Result (mg/kg)								
A	LT 7	LT 10	LT 10	LT 7	LT 5	LT 10	LT 10	LT 10	PASS

*mg/kg = milligrams per kilogram (ppm=parts per million)*

*LT = Less Than*

*ND = None Detected*

*Detection limit (mg/kg): As and Cr = 7, Hg = 5, other elements = 10*

*As = Arsenic, Ba = Barium, Cd = Cadmium,*

*Cr = Chromium, Hg = Mercury, Pb = Lead,*

*Sb = Antimony, Se = Selenium*

**Remark:**

Textiles (natural or synthetic) are exempted for lead content requirement according to clarification of Toy Industry Association for ASTM F963-17. The lead content analysis result of corresponding material herein is for client's reference only.

**EXHIBIT # 1**



SAMPLE PHOTO