



TEST REPORT

Report No. 010221110037

Dated NOV 23, 2021

Client : PLAN CREATIONS CO., LTD.
8 MOO 8, TRANG-PALIAN RD.,
YANTAKAO, TRANG 92140
ATTN: MS RATCHADA KONGTHON

Buyer : /

Test Sample Received : RECEIVED ON 17/11/2021

Test Period : FROM 17/11/2021 TO 23/11/2021

Sample Description : GEARS & PUZZLES

Product Code : 5394

Age Grade : 2Y+

Manufacturer : /

Country of Destination : /

Country of Origin : THAILAND

TEST REQUESTED	CONCLUSION	REMARK
ASTM F963-17 – STANDARD CONSUMER SAFETY SPECIFICATION FOR TOY SAFETY (MECHANICAL AND PHYSICAL PROPERTIES)	PASS	-
CPSC 2020 AGE DETERMINATION GUIDELINES	DATA	-
ASTM F963-17 – STANDARD CONSUMER SAFETY SPECIFICATION FOR TOY SAFETY (FLAMMABILITY)	PASS	-
CONSUMER PRODUCT SAFETY IMPROVEMENT ACT OF 2008 SECTION 101 CHILDREN'S PRODUCTS CONTAINING LEAD	PASS	-
CONSUMER PRODUCT SAFETY IMPROVEMENT ACT OF 2008 SECTION 101 CHILDREN'S PRODUCTS CONTAINING LEAD; LEAD PAINT RULE	PASS	-
ILCS 410 ILCS 45 LEAD POISONING PREVENTION ACT SEC. 6(B) CHILDREN'S PRODUCTS (ILLINOIS)	PASS	-
ASTM F963-17 – STANDARD CONSUMER SAFETY SPECIFICATION FOR TOY SAFETY (SOLUBLE HEAVY METAL CONTENT)	PASS	-
CONSUMER PRODUCT SAFETY IMPROVEMENT ACT OF 2008 SECTION 108 PROHIBITION OF SALE OF CERTAIN PRODUCTS CONTAINING SPECIFIED PHTHALATES	PASS	-
CALIFORNIA PROPOSITION 65 – PHTHALATE CONTENT	PASS	-



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For technical enquiries or any other concerns, please contact:

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PREPARED BY:

EDMUND YAP

LABORATORY MANAGER

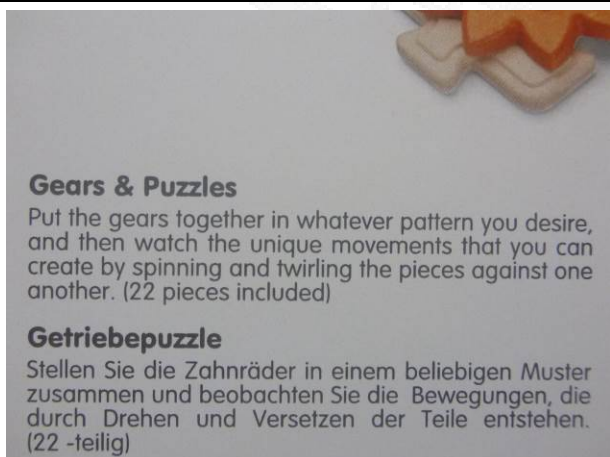
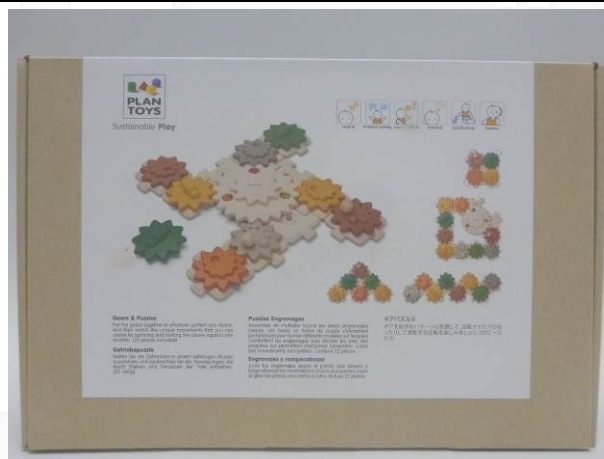
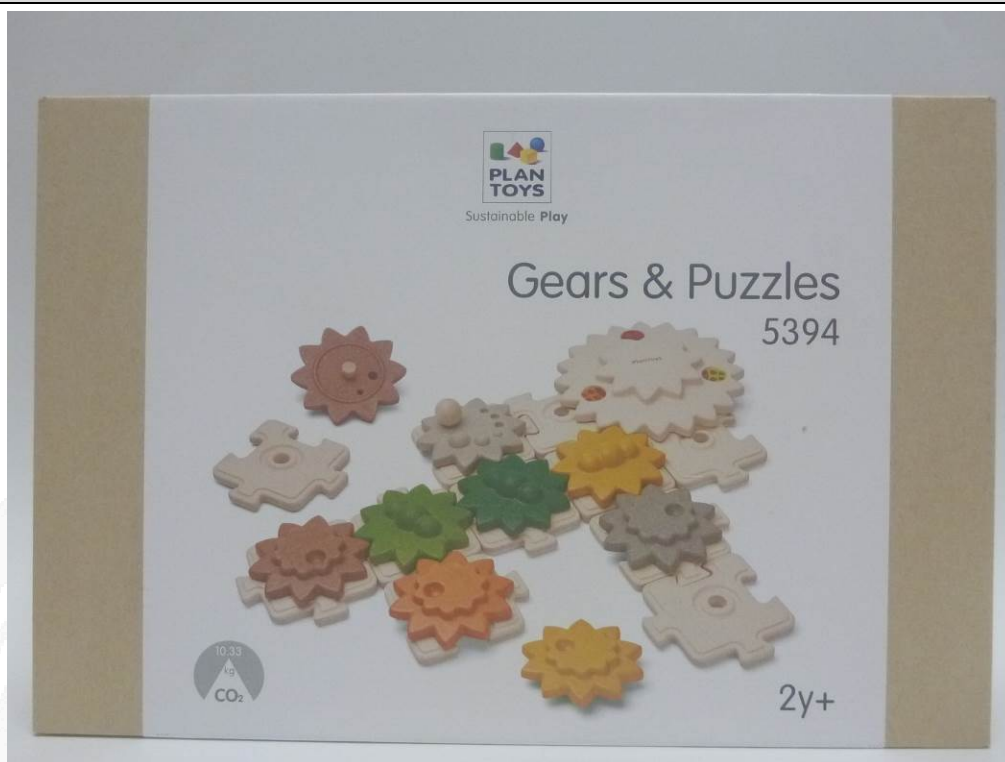
APPROVED BY:

SUZEN CHONG

SENIOR VICE PRESIDENT



SAMPLE PHOTO





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SAMPLE PHOTO





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REMARK:

As per customer request, results for chemical tests listed below were referenced from the corresponding reports, issued no more than 12 months prior to this report.

Item Description: 5394 GEARS & PUZZLES

<u>Components</u>	<u>Report Number</u>	<u>Date of Issue</u>
<u>ASTM F963-17 Soluble Heavy Metals</u>		
LIGHT GREEN COATING ON WOOD	010221080049	20 Aug 2021
RED COATING ON WOOD	010221060152	01 Jul 2021
ORANGE COATING ON WOOD	010221080049	20 Aug 2021
DARK BROWN COATING ON WOOD	010221070114	16 Jul 2021
YELLOW SAWDUST	120120075	18 Dec 2020
ORANGE SAWDUST	010221080054	20 Aug 2021
LIGHT GREEN SAWDUST	120120079	18 Dec 2020
GREEN SAWDUST	120120079	18 Dec 2020
WARM GRAY SAWDUST	010221060153	01 Jul 2021
BROWN SAWDUST	120120077	18 Dec 2020
GRAY SAWDUST (PASTEL)	010221080094	31 Aug 2021
SAWDUST WOOD	010221060153	01 Jul 2021
<u>Lead in Surface Coating</u>		
LIGHT GREEN COATING ON WOOD	010221080049	20 Aug 2021
RED COATING ON WOOD	010221060152	01 Jul 2021
ORANGE COATING ON WOOD	010221080049	20 Aug 2021
DARK BROWN COATING ON WOOD	010221070114	16 Jul 2021
<u>Lead in Substrate</u>		
YELLOW SAWDUST	120120075	18 Dec 2020
ORANGE SAWDUST	010221080054	20 Aug 2021
LIGHT GREEN SAWDUST	120120079	18 Dec 2020
GREEN SAWDUST	120120079	18 Dec 2020
WARM GRAY SAWDUST	010221060153	01 Jul 2021
BROWN SAWDUST	120120077	18 Dec 2020
GRAY SAWDUST (PASTEL)	010221080094	31 Aug 2021
SAWDUST WOOD	010221060153	01 Jul 2021
<u>Phthalate Content</u>		
LIGHT GREEN COATING ON WOOD	010221080049	20 Aug 2021
RED COATING ON WOOD	010221060152	01 Jul 2021
ORANGE COATING ON WOOD	010221080049	20 Aug 2021
DARK BROWN COATING ON WOOD	010221070114	16 Jul 2021
YELLOW SAWDUST	120120075	18 Dec 2020
ORANGE SAWDUST	010221080054	20 Aug 2021
LIGHT GREEN SAWDUST	120120079	18 Dec 2020
GREEN SAWDUST	120120079	18 Dec 2020
WARM GRAY SAWDUST	010221060153	01 Jul 2021
BROWN SAWDUST	120120077	18 Dec 2020
GRAY SAWDUST (PASTEL)	010221080094	31 Aug 2021
SAWDUST WOOD	010221060153	01 Jul 2021



TEST REPORT

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TEST RESULT(S):

ASTM F963-17 – Standard Consumer Safety Specification for Toy Safety (Mechanical and Physical Properties)

Test Method : Reference to ASTM F963-17.

Test Item(s)	Item / Component Description(s)
1	5394 GEARS & PUZZLES

Section	Requirement	Result
		1
4.1	Material quality	M
4.2	Flammability	See Results
4.3	Toxicology	See Results
4.4	Electrical/Thermal Energy	NA
4.5	Sound-Producing Toys	NA
4.6	Small Objects	M
4.7	Accessible Edges	M
4.8	Projections	NA
4.9	Accessible Points	M
4.10	Wires or Rods	NA
4.11	Nails and Fasteners	NA
4.12	Plastic Film	NA
4.13	Folding Mechanisms and Hinges	NA
4.14	Cords, Straps, and Elastics	NA
4.15	Stability and Over-Load Requirements	NA
4.16	Confined Spaces	NA
4.17	Wheels, Tires, and Axles	NA
4.18	Holes, Clearance, and Accessibility of Mechanisms	NA
4.19	Simulated Protective Devices	NA
4.20	Pacifiers	NA
4.21	Projectile Toys	NA
4.22	Teethers and Teething Toys	NA
4.23	Rattles	NA
4.24	Squeeze Toys	NA
4.25	Battery-Operated Toys	NA
4.26	Toys Intended to be Attached to a Crib or Playpen	NA
4.27	Stuffed and Beanbag-Type Toys	NA
4.28	Stroller and Carriage Toys	NA
4.29	Art Materials	NA
4.30	Toy Gun Marking	NA
4.31	Balloons	NA
4.32	Certain Toys with Nearly Spherical Ends	NA
4.33	Marbles	NA
4.34	Balls	NA
4.35	Pompoms	NA
4.36	Hemispheric-Shaped Objects	NA
4.37	Yo Yo Elastic Tether Toys	NA
4.38	Magnets	NA
4.39	Jaw Entrapment in Handles and Steering Wheels	NA
4.40	Expanding Materials	NA
4.41	Toy Chests	NA
5	Labeling Requirements	M
6	Instructional Literature	M
7	Producer's Markings	M



TEST REPORT

Report No. 010221110037

Dated NOV 23, 2021

TEST RESULT(S): (Continued)

Note:

M = Meet

NM = Not Meet

NA = Not Applicable

R = Refer to Comment Section

NR = Not Requested

NT = Not Tested

NP = Not Present

CPSC 2020 Age Determination Guidelines

Test Method : Reference to CPSC 2020 Age Determination Guidelines.

Claimed Age Grade	Recommended Age Grade
2Y+	2Y+

ASTM F963-17 – Standard Consumer Safety Specification for Toy Safety (Flammability)

Test Method : Reference to ASTM F963-17 Annex A5 and A6.

Test Item(s)	Item / Component Description(s)
1	5394 GEARS & PUZZLES

Test Item(s)	Length of Major Axis (in)	Burn Length (in)	Burn Time (s)	Req. (in/s)	Burn Rate (in/s)	Result
1	5.6	DNI	DNI	0.1	DNI	DNI
Conclusion	-	-	-	-	-	PASS

Note:

M = Meet

NM = Not Meet

NA = Not Applicable

R = Refer to Comment Section

NR = Not Requested

NT = Not Tested

NP = Not Present

DNI = Did Not Ignite

Consumer Product Safety Improvement Act of 2008 Section 101 Children's Products Containing Lead

Test Method : Reference to CPSC-CH-E1002-08.3 Analysis by ICP-MS.

Test Item(s)	Item / Component Description(s)						
1	YELLOW SAWDUST						
2	ORANGE SAWDUST						
3	LIGHT GREEN SAWDUST						
4	GREEN SAWDUST						
5	WARM GRAY SAWDUST						
6	BROWN SAWDUST						
7	GRAY SAWDUST (PASTEL)						
8	SAWDUST WOOD						

-	Unit	Req.	Result				
Test Item(s)	-	-	1	2	3	4	5
Lead	mg/kg	100	ND	3.4	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS	PASS

-	Unit	Req.	Result		
Test Item(s)	-	-	6	7	8
Lead	mg/kg	100	ND	2.7	2.4
Conclusion	-	-	PASS	PASS	PASS

Note:

- mg/kg = milligrams per kilogram

- ND = Not Detected

- Reporting limit (Each): 2 mg/kg



TEST REPORT

Report No. 010221110037

Dated NOV 23, 2021

TEST RESULT(S): (Continued)

Consumer Product Safety Improvement Act of 2008 Section 101 Children's Products Containing Lead; Lead Paint Rule

Test Method : Reference to CPSC-CH-E1003-09.1 Analysis by ICP-MS.

Test Item(s)	Item / Component Description(s)
1	LIGHT GREEN COATING ON WOOD
2	RED COATING ON WOOD
3	ORANGE COATING ON WOOD
4	DARK BROWN COATING ON WOOD

-	Unit	Req.	Result			
Test Item(s)	-	-	1	2	3	4
Lead	mg/kg	90	2.9	ND	4.5	ND
Conclusion	-	-	PASS	PASS	PASS	PASS

Note:

- mg/kg = milligrams per kilogram
- ND = Not Detected
- Reporting limit (Each): 2 mg/kg

410 ILCS 45 Lead Poisoning Prevention Act sec. 6(b) Children's Products (Illinois)

Test Method : Reference to CPSC-CH-E1002-08.3, CPSC-CH-E1003-09.1 Analysis by ICP-MS.

Test Item(s)	Item / Component Description(s)
1	LIGHT GREEN COATING ON WOOD
2	RED COATING ON WOOD
3	ORANGE COATING ON WOOD
4	DARK BROWN COATING ON WOOD
5	YELLOW SAWDUST
6	ORANGE SAWDUST
7	LIGHT GREEN SAWDUST
8	GREEN SAWDUST
9	WARM GRAY SAWDUST
10	BROWN SAWDUST
11	GRAY SAWDUST (PASTEL)
12	SAWDUST WOOD

-	Unit	Req.	Result				
Test Item(s)	-	-	1	2	3	4	5
Total Lead (Pb)	mg/kg	40	ND	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS	PASS

-	Unit	Req.	Result				
Test Item(s)	-	-	6	7	8	9	10
Total Lead (Pb)	mg/kg	40	ND	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS	PASS

-	Unit	Req.	Result	
Test Item(s)	-	-	11	12
Total Lead (Pb)	mg/kg	40	ND	ND
Conclusion	-	-	PASS	PASS



TEST REPORT

Report No. 010221110037

Dated NOV 23, 2021

TEST RESULT(S): (Continued)

Note:

- mg/kg = milligrams per kilogram
- Reporting limit (Each): 2 mg/kg
- ND = Not Detected

ASTM F963-17 – Standard Consumer Safety Specification for Toy Safety (Soluble Heavy Metal Content)

Test Method : Reference to ASTM F963-17 Analysis by ICP-MS.

Test Item(s)	Item / Component Description(s)
1	LIGHT GREEN COATING ON WOOD
2	RED COATING ON WOOD
3	ORANGE COATING ON WOOD
4	DARK BROWN COATING ON WOOD
5	YELLOW SAWDUST
6	ORANGE SAWDUST
7	LIGHT GREEN SAWDUST
8	GREEN SAWDUST
9	WARM GRAY SAWDUST
10	BROWN SAWDUST
11	GRAY SAWDUST (PASTEL)
12	SAWDUST WOOD

-	Unit	Req.	Result				
Test Item(s)	-	-	1	2	3	4	5
Antimony (Sb)	mg/kg	60	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	25	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	1000	ND	ND	ND	64	ND
Cadmium (Cd)	mg/kg	75	ND	ND	ND	ND	ND
Chromium III (Cr III)	mg/kg	60	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	90	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	60	ND	ND	ND	ND	ND
Selenium (Se)	mg/kg	500	ND	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS	PASS

-	Unit	Req.	Result				
Test Item(s)	-	-	6	7	8	9	10
Antimony (Sb)	mg/kg	60	ND	ND	ND	ND	ND
Arsenic (As)	mg/kg	25	ND	ND	ND	ND	ND
Barium (Ba)	mg/kg	1000	ND	70	ND	ND	ND
Cadmium (Cd)	mg/kg	75	ND	ND	ND	ND	ND
Chromium III (Cr III)	mg/kg	60	ND	ND	ND	ND	ND
Lead (Pb)	mg/kg	90	ND	ND	ND	ND	ND
Mercury (Hg)	mg/kg	60	ND	ND	ND	ND	ND
Selenium (Se)	mg/kg	500	ND	ND	ND	ND	ND
Conclusion	-	-	PASS	PASS	PASS	PASS	PASS



TEST REPORT

Report No. 010221110037

Dated NOV 23, 2021

TEST RESULT(S): (Continued)

-	Unit	Req.	Result	
Test Item(s)	-	-	11	12
Antimony (Sb)	mg/kg	60	ND	ND
Arsenic (As)	mg/kg	25	ND	ND
Barium (Ba)	mg/kg	1000	ND	ND
Cadmium (Cd)	mg/kg	75	ND	ND
Chromium III (Cr III)	mg/kg	60	ND	ND
Lead (Pb)	mg/kg	90	ND	ND
Mercury (Hg)	mg/kg	60	ND	ND
Selenium (Se)	mg/kg	500	ND	ND
Conclusion	-	-	PASS	PASS

Note:

- mg/kg = milligrams per kilogram
- Reporting limit (each) = 2 mg/kg
- ND = Not Detected

Consumer Product Safety Improvement Act of 2008 Section 108 Prohibition of Sale of Certain Products Containing Specified Phthalates

Test Method : Reference to CPSC-CH-C1001-09.4 Analysis by GC-MS.

Test Item(s)	Item / Component Description(s)
1	LIGHT GREEN COATING ON WOOD
2	RED COATING ON WOOD
3	ORANGE COATING ON WOOD
4	DARK BROWN COATING ON WOOD
5	YELLOW SAWDUST
6	ORANGE SAWDUST
7	LIGHT GREEN SAWDUST
8	GREEN SAWDUST
9	WARM GRAY SAWDUST
10	BROWN SAWDUST
11	GRAY SAWDUST (PASTEL)
12	SAWDUST WOOD

-	Abbrev.	Unit	Req.	Result				
Test Item(s)	-	-	-	1	2	3	4	5
Di-(2-ethylhexyl) phthalate	DEHP	%	0.1	ND	ND	ND	ND	ND
Di-butyl phthalate	DBP	%	0.1	ND	ND	ND	ND	ND
Benzyl butyl phthalate	BBP	%	0.1	ND	ND	ND	ND	ND
Di-iso-nonyl phthalate	DINP	%	0.1	ND	ND	ND	ND	ND
Di-iso-butyl phthalate	DIBP	%	0.1	ND	ND	ND	ND	ND
Di-n-pentyl phthalate	DPENP	%	0.1	ND	ND	ND	ND	ND
Di-n-hexyl phthalate	DHEXP	%	0.1	ND	ND	ND	ND	ND
Di-cyclohexyl phthalate	DCHP	%	0.1	ND	ND	ND	ND	ND
Conclusion		-	-	PASS	PASS	PASS	PASS	PASS



TEST REPORT

Report No. 010221110037

Dated NOV 23, 2021

TEST RESULT(S): (Continued)

-	Abbrev.	Unit	Req.	Result				
Test Item(s)	-	-	-	6	7	8	9	10
Di-(2-ethylhexyl) phthalate	DEHP	%	0.1	ND	ND	ND	ND	ND
Di-butyl phthalate	DBP	%	0.1	ND	ND	ND	ND	ND
Benzyl butyl phthalate	BBP	%	0.1	ND	ND	ND	ND	ND
Di-iso-nonyl phthalate	DINP	%	0.1	ND	ND	ND	ND	ND
Di-iso-butyl phthalate	DIBP	%	0.1	ND	ND	ND	ND	ND
Di-n-pentyl phthalate	DPENP	%	0.1	ND	ND	ND	ND	ND
Di-n-hexyl phthalate	DHEXP	%	0.1	ND	ND	ND	ND	ND
Di-cyclohexyl phthalate	DCHP	%	0.1	ND	ND	ND	ND	ND
Conclusion		-	-	PASS	PASS	PASS	PASS	PASS

-	Abbrev.	Unit	Req.	Result	
Test Item(s)	-	-	-	11	12
Di-(2-ethylhexyl) phthalate	DEHP	%	0.1	ND	ND
Di-butyl phthalate	DBP	%	0.1	ND	ND
Benzyl butyl phthalate	BBP	%	0.1	ND	ND
Di-iso-nonyl phthalate	DINP	%	0.1	ND	ND
Di-iso-butyl phthalate	DIBP	%	0.1	ND	ND
Di-n-pentyl phthalate	DPENP	%	0.1	ND	ND
Di-n-hexyl phthalate	DHEXP	%	0.1	ND	ND
Di-cyclohexyl phthalate	DCHP	%	0.1	ND	ND
Conclusion		-	-	PASS	PASS

Note:

- Reporting limit (Each): 0.01 %

- ND = Not Detected

ANNEX					
Compound	Abbrev.	CASRN	Compound	Abbrev.	CASRN
Di-(2-ethylhexyl) phthalate	DEHP	117-81-7	Di-iso-butyl phthalate	DIBP	84-69-5
Di-butyl phthalate	DBP	84-74-2	Di-n-pentyl phthalate	DPENP	84-61-7
Benzyl butyl phthalate	BBP	85-68-7	Di-n-hexyl phthalate	DHEXP	28553-12-0 / 68515-48-0
Di-iso-nonyl phthalate	DINP	131-18-0	Di-cyclohexyl phthalate	DCHP	84-75-3

CASRN: Chemical Abstracts Service Registry Number

California Proposition 65 – Phthalate Content

Test Method : Reference to CPSC-CH-C1001-09.4 Analysis by GC-MS.

Test Item(s)	Item / Component Description(s)
1	LIGHT GREEN COATING ON WOOD
2	RED COATING ON WOOD
3	ORANGE COATING ON WOOD
4	DARK BROWN COATING ON WOOD
5	YELLOW SAWDUST
6	ORANGE SAWDUST
7	LIGHT GREEN SAWDUST
8	GREEN SAWDUST
9	WARM GRAY SAWDUST
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TEST RESULT(S): (Continued)

-	Abbrev.	Unit	Req.	Result				
Test Item(s)	-	-	-	1	2	3	4	5
Benzyl butyl phthalate	BBP	%	0.1	ND	ND	ND	ND	ND
Di-butyl phthalate	DBP	%	0.1	ND	ND	ND	ND	ND
Di-(2-ethylhexyl) phthalate	DEHP	%	0.1	ND	ND	ND	ND	ND
Di-iso-decyl phthalate	DIDP	%	0.1	ND	ND	ND	ND	ND
Di-iso-nonyl phthalate	DINP	%	0.1	ND	ND	ND	ND	ND
Di-n-hexyl phthalate	DNHP	%	0.1	ND	ND	ND	ND	ND
Conclusion		-	-	PASS	PASS	PASS	PASS	PASS

-	Abbrev.	Unit	Req.	Result				
Test Item(s)	-	-	-	6	7	8	9	10
Benzyl butyl phthalate	BBP	%	0.1	ND	ND	ND	ND	ND
Di-butyl phthalate	DBP	%	0.1	ND	ND	ND	ND	ND
Di-(2-ethylhexyl) phthalate	DEHP	%	0.1	ND	ND	ND	ND	ND
Di-iso-decyl phthalate	DIDP	%	0.1	ND	ND	ND	ND	ND
Di-iso-nonyl phthalate	DINP	%	0.1	ND	ND	ND	ND	ND
Di-n-hexyl phthalate	DNHP	%	0.1	ND	ND	ND	ND	ND
Conclusion		-	-	PASS	PASS	PASS	PASS	PASS

-	Abbrev.	Unit	Req.	Result	
Test Item(s)	-	-	-	11	12
Benzyl butyl phthalate	BBP	%	0.1	ND	ND
Di-butyl phthalate	DBP	%	0.1	ND	ND
Di-(2-ethylhexyl) phthalate	DEHP	%	0.1	ND	ND
Di-iso-decyl phthalate	DIDP	%	0.1	ND	ND
Di-iso-nonyl phthalate	DINP	%	0.1	ND	ND
Di-n-hexyl phthalate	DNHP	%	0.1	ND	ND
Conclusion		-	-	PASS	PASS

Note:

- Reporting limit (Each): 0.01 %

- ND = Not Detected

ANNEX					
Compound	Abbrev.	CASRN	Compound	Abbrev.	CASRN
Di-butyl phthalate	DBP	84-74-2	Di-iso-decyl phthalate	DIDP	68515-49-1 / 26761-40-0
Benzyl butyl phthalate	BBP	85-68-7	Di-iso-nonyl phthalate	DINP	131-18-0
Di-(2-ethylhexyl) phthalate	DEHP	117-81-7	Di-n-hexyl phthalate	DNHP	28553-12-0 / 68515-48-0

CASRN: Chemical Abstracts Service Registry Number

END OF REPORT

This report sets forth our findings solely with respect to the test samples identified herein. The results in this report are not representative of the quality or characteristics of the lot/batch from which a test sample was taken or any similar or identical product unless specifically and expressly noted. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client, GIC Testing & Inspection Services Pte. Ltd. therefore assumes no responsibility for the accuracy of information on the brand name, model/ style number, consignment or any information supplied. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission.