

Test Report

No.: 68.431.22.4284.01

Date: 2022-11-22



Greater China

Applicant: Spector & CO
Address: /
Sample Description: EARBUD KIT
End Use: Technology
Item No.: T307
Style No.: DINO
Supplier: USY009
Country of Origin: CHINA
Country of Destination: CANADA & U.S.A.
Receipt Date of Sample: 2022-09-29, 2022-11-09
Date of Testing: From 2022-09-29 to 2022-11-18
Sample Submitted: The sample(s) was (were) submitted by applicant and identified.
Test Result: Refer to the data listed in following pages

Test Item	Conclusion
1. US California Proposition 65 - Total Cadmium Content Test - Paint and Similar Surface-Coating Materials	Pass*
2. US California Proposition 65 - Total Cadmium Content Test - Substrate Materials	Pass*
3. US California Proposition 65 - Total lead Content Test - Paint and Similar Surface-Coating Materials	Pass*
4. US California Proposition 65 - Total Lead Content Test - Substrate Materials	Pass*
5. Phthalates Content (11P)	Pass*
6. Tungsten Content Test	Report As Is
7. Canadian Surface Coating Materials Regulations SOR/2016-193 - Total Mercury Content Test	Pass
8. Canadian Surface Coating Materials Regulations SOR/2016-193 - Total Lead Content Test	Pass
9. Canadian Consumer Products Containing Lead Regulations SOR/2018-83 - Total Lead Content Test	Pass
10. Total Nickel Content Test	Report As Is
11. U.S. CFR Title 16 Part 1307 - Toys and Childcare Articles - Phthalates Content (8P)	Pass
12. US California Proposition 65 - Phthalates Content (6P)	Pass*
13. Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)	Pass*
14. Fluorine(F) Content	Pass*

Remarks: 1. MDL = Method Detection Limit
2. N.D. = Not Detected (<MDL)
3. ≤ Less than

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Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China

Phone: +86 755 8828 6998
Fax: +86 755 8828 5299
E-mail: info@tuvsud.com
Web : http://www.tuvsud.cn

Lab 1 - Chemical testing and part of electrical testing Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China

Lab 2 - Physical & Mechanical Test: Building A2, Jin'ao Industrial Park, No. 150, Jingfang Road, Fuhai, Baoan District, Shenzhen, Guangdong, China

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4. 1 mg/kg = 1 ppm = 0.0001%

5. NA=Not Applicable

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Testing Center

Prepared by:

Authorized by:

Jojo Zhao



Eva Liang

Jojo Zhao
Project Coordinator

Eva Liang
Project Manager

Note:

- (1) The TÜV SÜD Certification and Testing (China) Co., Ltd. "General Terms & Conditions" applied.
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For further details, please see "Testing and certification regulation", chapter A-3.4
For full version, please visit: EN : <https://www.tuvsud.cn/zh-cn/resource/terms-and-conditions---en> ; SCN: <https://www.tuvsud.cn/zh-cn/terms-and-conditions> ; TCN: <https://www.tuvsud.com/zh-tw/terms-and-conditions>
- (2) The results relate only to the Items tested.
- (3) The test report shall not be reproduced except in full without the written approval of the laboratory
- (4) If relevant standards do not specify decision rule(s), follow decision rule as below:
 - "Pass" means that the measured result is within the limits, even when extended by expanded uncertainty at a level of confidence of 95%.
 - "Fail" means that the measured result is beyond the limit, even when extended by expanded uncertainty at a level of confidence of 95%.
- (5) The test item and sample were specified by the client.
- (6) "*" denotes the conclusion was drawn according to the client's specification.

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Description of Tested Subject:

Sample	Description	Photo
A	Whole product	
001	Black coating (Zipper head & zipper puller)	
002	Silvery metal (Zipper head)	
003	Silvery metal (Zipper puller)	
004	Black synthetic leather w/ adhesive backing (Box)	
005	Black fabric (Zipper band)	
006	Black plastic (Zipper teeth)	
007	Black fabric (Connection)	
008	Black plush fabric (Lining)	
009	Black net fabric (Interlayer)	

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010	Black fabric (Elastic band)	
011	Golden metal (Tip of Plug)	
012	Golden metal (Second part of Plug)	
013	Golden metal (Third part of Plug)	
014	Golden metal (Bottom of Plug)	
015	Black plastic (Plug)	
016	Black soft plastic (Plug & connector)	
017	Black soft plastic (Earphone cable)	
018	Silvery metal (Button)	
019	Black plastic (Button box)	
020	Black soft plastic (Ear Plug)	
021	Black plastic (Earphone)	
022	Silvery plated off white plastic (Earphone)	
023	Silvery coating (Letter on earphone)	
024	Black plastic net w/ adhesive backing (Earphone)	

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025	Green printed brown PCB (Earphone)	
026	Blue coating (Zipper head & zipper puller)	
027	Blue synthetic leather w/ adhesive backing (Box)	
028	Blue fabric (Zipper band)	
029	Blue plastic (Zipper teeth)	
030	Blue fabric (Connection)	
031	Blue soft plastic (Plug & connector)	
032	Blue soft plastic (Earphone cable)	

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033	Blue plastic (Button box)	
034	Blue soft plastic (Ear Plug)	
035	Blue plastic (Earphone)	
036	Dull silvery plated off white plastic (Earphone)	
037	White plastic net w/ adhesive backing (Earphone)	
038	Orange coating (Zipper head & zipper puller)	
039	Orange synthetic leather w/ adhesive backing (Box)	
040	Orange fabric (Zipper band)	
041	Orange plastic (Zipper teeth)	
042	Orange fabric (Connection)	

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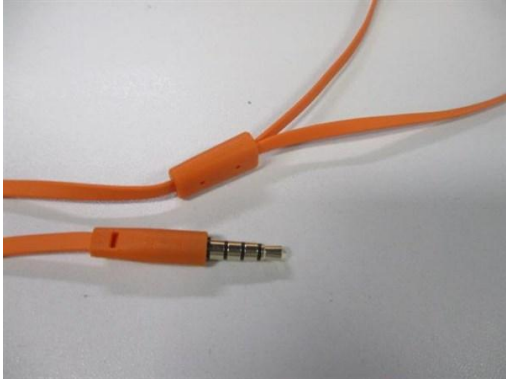


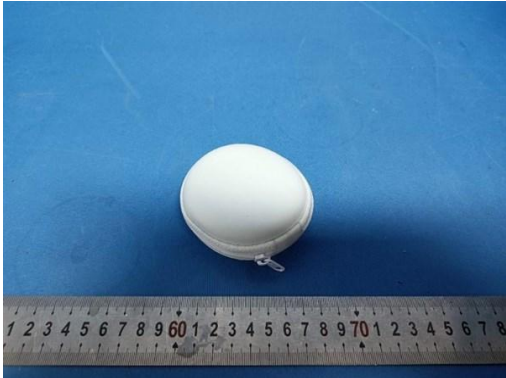
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043	Orange soft plastic (Plug & connector)	
044	Orange soft plastic (Earphone cable)	
045	Orange plastic (Button box)	
046	Orange soft plastic (Ear Plug)	
047	Orange plastic (Earphone)	
048	White coating (Zipper head & zipper puller)	
049	White synthetic leather w/ adhesive backing (Box)	

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050	White fabric (Zipper band)	
051	White plastic (Zipper teeth)	
052	White fabric (Connection)	
053	White plush fabric (Lining)	
054	White net fabric (Interlayer)	
055	White fabric (Elastic band)	
056	White soft plastic (Plug & connector)	
057	White soft plastic (Earphone cable)	
058	White plastic (Button box)	

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059	White soft plastic (Ear Plug)	
060	White plastic (Earphone)	

T. No	Sample	Description
T1	001	Black coating (Zipper head & zipper puller)
T2	002	Silvery metal (Zipper head)
T3	003	Silvery metal (Zipper puller)
T4	004	Black synthetic leather w/ adhesive backing (Box)
T5	005	Black fabric (Zipper band)
T6	006	Black plastic (Zipper teeth)
T7	007	Black fabric (Connection)
T8	008	Black plush fabric (Lining)
T9	009	Black net fabric (Interlayer)
T10	010	Black fabric (Elastic band)
T11	011	Golden metal (Tip of Plug)
T12	012	Golden metal (Second part of Plug)
T13	013	Golden metal (Third part of Plug)
T14	014	Golden metal (Bottom of Plug)
T15	015	Black plastic (Plug)
T16	016	Black soft plastic (Plug & connector)
T17	017	Black soft plastic (Earphone cable)
T18	018	Silvery metal (Button)
T19	019	Black plastic (Button box)
T20	020	Black soft plastic (Ear Plug)
T21	021	Black plastic (Earphone)
T22	022	Silvery plated off white plastic (Earphone)
T23	023	Silvery coating (Letter on earphone)
T24	024	Black plastic net w/ adhesive backing (Earphone)
T25	025	Green printed brown PCB (Earphone)
T26	026	Blue coating (Zipper head & zipper puller)
T27	027	Blue synthetic leather w/ adhesive backing (Box)
T28	028	Blue fabric (Zipper band)
T29	029	Blue plastic (Zipper teeth)
T30	030	Blue fabric (Connection)
T31	031	Blue soft plastic (Plug & connector)

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T. No	Sample	Description
T32	032	Blue soft plastic (Earphone cable)
T33	033	Blue plastic (Button box)
T34	034	Blue soft plastic (Ear Plug)
T35	035	Blue plastic (Earphone)
T36	036	Dull silvery plated off white plastic (Earphone)
T37	037	White plastic net w/ adhesive backing (Earphone)
T38	038	Orange coating (Zipper head & zipper puller)
T39	039	Orange synthetic leather w/ adhesive backing (Box)
T40	040	Orange fabric (Zipper band)
T41	041	Orange plastic (Zipper teeth)
T42	042	Orange fabric (Connection)
T43	043	Orange soft plastic (Plug & connector)
T44	044	Orange soft plastic (Earphone cable)
T45	045	Orange plastic (Button box)
T46	046	Orange soft plastic (Ear Plug)
T47	047	Orange plastic (Earphone)
T48	048	White coating (Zipper head & zipper puller)
T49	049	White synthetic leather w/ adhesive backing (Box)
T50	050	White fabric (Zipper band)
T51	051	White plastic (Zipper teeth)
T52	052	White fabric (Connection)
T53	053	White plush fabric (Lining)
T54	054	White net fabric (Interlayer)
T55	055	White fabric (Elastic band)
T56	056	White soft plastic (Plug & connector)
T57	057	White soft plastic (Earphone cable)
T58	058	White plastic (Button box)
T59	059	White soft plastic (Ear Plug)
T60	060	White plastic (Earphone)

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Test Result(s):

1. US California Proposition 65 - Total Cadmium Content Test - Paint and Similar Surface-Coating Materials

Test with reference to microwave digestion, determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Sample	Unit	MDL	Client's Limit	Result(s)	Conclusion
001	mg/kg	10	75	N.D.	Pass
023	mg/kg	10	75	N.D.	Pass
026	mg/kg	10	75	N.D.	Pass
038	mg/kg	10	75	N.D.	Pass
048	mg/kg	10	75	N.D.	Pass

2. US California Proposition 65 - Total Cadmium Content Test - Substrate Materials

Test with reference to acid digestion or microwave digestion, determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Sample	Unit	MDL	Client's Limit	Result(s)	Conclusion
002	mg/kg	10	75	N.D.	Pass
003	mg/kg	10	75	N.D.	Pass
004	mg/kg	10	75	N.D.	Pass
005+007	mg/kg	10	75	N.D.	Pass
006+015	mg/kg	10	75	N.D.	Pass
008+009+010	mg/kg	10	75	N.D.	Pass
011	mg/kg	10	75	N.D.	Pass
012	mg/kg	10	75	N.D.	Pass
013	mg/kg	10	75	N.D.	Pass
014	mg/kg	10	75	N.D.	Pass
016+017+020	mg/kg	10	75	N.D.	Pass
018	mg/kg	10	75	N.D.	Pass
019+033+035	mg/kg	10	75	N.D.	Pass
021+022+024	mg/kg	10	75	N.D.	Pass
027+039+049	mg/kg	10	75	N.D.	Pass
028+040+050	mg/kg	10	75	N.D.	Pass
029+041+051	mg/kg	10	75	N.D.	Pass
030+042+052	mg/kg	10	75	N.D.	Pass
031+032+034	mg/kg	10	75	N.D.	Pass
036+037	mg/kg	10	75	N.D.	Pass
043+044+046	mg/kg	10	75	N.D.	Pass
045+047	mg/kg	10	75	N.D.	Pass
053+054+055	mg/kg	10	75	N.D.	Pass
056+057+059	mg/kg	10	75	N.D.	Pass
058+060	mg/kg	10	75	N.D.	Pass

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3. US California Proposition 65 - Total Lead Content Test - Paint and Similar Surface-Coating Materials

Test with reference to microwave digestion, determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Sample	Unit	MDL	Client's Limit	Result(s)	Conclusion
001	mg/kg	10	90	N.D.	Pass
023	mg/kg	10	90	N.D.	Pass
026	mg/kg	10	90	N.D.	Pass
038	mg/kg	10	90	N.D.	Pass
048	mg/kg	10	90	N.D.	Pass

4. US California Proposition 65 - Total Lead Content Test - Substrate Materials

Test with reference to acid digestion or microwave digestion, determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Sample	Unit	MDL	Client's Limit	Result(s)	Conclusion
002	mg/kg	10	100	26.8	Pass
003	mg/kg	10	100	35.0	Pass
004	mg/kg	10	100	N.D.	Pass
005+007	mg/kg	10	100	N.D.	Pass
006+015	mg/kg	10	100	N.D.	Pass
008+009+010	mg/kg	10	100	N.D.	Pass
011	mg/kg	10	100	47.9	Pass
012	mg/kg	10	100	45.5	Pass
013	mg/kg	10	100	78.5	Pass
014	mg/kg	10	100	64.4	Pass
016+017+020	mg/kg	10	100	N.D.	Pass
018	mg/kg	10	100	N.D.	Pass
019+033+035	mg/kg	10	100	N.D.	Pass
021+022+024	mg/kg	10	100	N.D.	Pass
027+039+049	mg/kg	10	100	N.D.	Pass
028+040+050	mg/kg	10	100	N.D.	Pass
029+041+051	mg/kg	10	100	N.D.	Pass
030+042+052	mg/kg	10	100	N.D.	Pass
031+032+034	mg/kg	10	100	N.D.	Pass
036+037	mg/kg	10	100	N.D.	Pass
043+044+046	mg/kg	10	100	N.D.	Pass
045+047	mg/kg	10	100	N.D.	Pass
053+054+055	mg/kg	10	100	N.D.	Pass
056+057+059	mg/kg	10	100	N.D.	Pass
058+060	mg/kg	10	100	N.D.	Pass

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5. Phthalates Content (11P)

Test with reference to in-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					001+023	004
Diethyl phthalate(DEP)	84-66-2	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					005+007	006+015
Diethyl phthalate(DEP)	84-66-2	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.

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Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China

Phone: +86 755 8828 6998

Fax: +86 755 8828 5299

E-mail: info@tuv sud.com

Web : http://www.tuvsud.cn

Lab 1 - Chemical testing and part of electrical testing

Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China

Lab 2 - Physical & Mechanical Test:

Building A2, Jin'ao Industrial Park, No. 150, Jingfang Road, Fuhai, Baoan District, Shenzhen, Guangdong, China

Test Report

No.: 68.431.22.4284.01

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Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					008+009+010	016+017+020
Diethyl phthalate(DEP)	84-66-2	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	0.010
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					019+033+035	021+022+024
Diethyl phthalate(DEP)	84-66-2	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	0.1	N.D.	N.D.

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Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					026+038+048	027+039+049
Diethyl phthalate(DEP)	84-66-2	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					028+040+050	029+041+051
Diethyl phthalate(DEP)	84-66-2	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.

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Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					030+042+052	031+032+034
Diethyl phthalate(DEP)	84-66-2	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					036+037	043+044+046
Diethyl phthalate(DEP)	84-66-2	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.

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Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					045+047	053+054+055
Diethyl phthalate(DEP)	84-66-2	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	0.011
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					056+057+059	058+060
Diethyl phthalate(DEP)	84-66-2	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	0.014	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.

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Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-n-octyl phthalate, (DNOP)	117-84-0	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

6. Tungsten Content Test

Test with reference to acid digestion and determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES)

Test items	Unit	MDL	Limit	Result(s)
				003
Tungsten(W)	mg/kg	10.0	-	N.D.
Conclusion				Report As Is

7. Canadian Surface Coating Materials Regulations SOR/2016-193 - Total Mercury Content Test

Test with reference to microwave digestion, determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Sample	Unit	MDL	Limit	Result(s)	Conclusion
001	mg/kg	10	10.0	N.D.	Pass
023	mg/kg	10	10.0	N.D.	Pass
026	mg/kg	10	10.0	N.D.	Pass
038	mg/kg	10	10.0	N.D.	Pass
048	mg/kg	10	10.0	N.D.	Pass

8. Canadian Surface Coating Materials Regulations SOR/2016-193 - Total Lead Content Test

Test with reference to microwave digestion, determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Sample	Unit	MDL	Limit	Result(s)	Conclusion
001	mg/kg	10	90	N.D.	Pass
023	mg/kg	10	90	N.D.	Pass

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026	mg/kg	10	90	N.D.	Pass
038	mg/kg	10	90	N.D.	Pass
048	mg/kg	10	90	N.D.	Pass

9. Canadian Consumer Products Containing Lead Regulations SOR/2018-83 - Total Lead Content Test

Test with reference to acid digestion or microwave digestion, determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

Sample	Unit	MDL	Limit	Result(s)	Conclusion
001	mg/kg	10	90	N.D.	Pass
002	mg/kg	10	90	26.8	Pass
003	mg/kg	10	90	35.0	Pass
004	mg/kg	10	90	N.D.	Pass
005+007	mg/kg	10	90	N.D.	Pass
006+015	mg/kg	10	90	N.D.	Pass
008+009+010	mg/kg	10	90	N.D.	Pass
011	mg/kg	10	90	47.9	Pass
012	mg/kg	10	90	45.5	Pass
013	mg/kg	10	90	78.5	Pass
014	mg/kg	10	90	64.4	Pass
016+017+020	mg/kg	10	90	N.D.	Pass
018	mg/kg	10	90	N.D.	Pass
019+033+035	mg/kg	10	90	N.D.	Pass
021+022+024	mg/kg	10	90	N.D.	Pass
023	mg/kg	10	90	N.D.	Pass
026	mg/kg	10	90	N.D.	Pass
027+039+049	mg/kg	10	90	N.D.	Pass
028+040+050	mg/kg	10	90	N.D.	Pass
029+041+051	mg/kg	10	90	N.D.	Pass
030+042+052	mg/kg	10	90	N.D.	Pass
031+032+034	mg/kg	10	90	N.D.	Pass
036+037	mg/kg	10	90	N.D.	Pass
038	mg/kg	10	90	N.D.	Pass
043+044+046	mg/kg	10	90	N.D.	Pass
045+047	mg/kg	10	90	N.D.	Pass
048	mg/kg	10	90	N.D.	Pass
053+054+055	mg/kg	10	90	N.D.	Pass
056+057+059	mg/kg	10	90	N.D.	Pass
058+060	mg/kg	10	90	N.D.	Pass

10. Total Nickel Content Test

Test with reference to acid digestion, determination by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

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Sample	Unit	MDL	Limit	Result(s)	Conclusion
002	mg/kg	5	-	11.004	Report As Is
003	mg/kg	5	-	N.D.	Report As Is
011	mg/kg	5	-	1660.050	Report As Is
012	mg/kg	5	-	7444.668	Report As Is
013	mg/kg	5	-	7376.712	Report As Is
014	mg/kg	5	-	7841.141	Report As Is
018	mg/kg	5	-	935231.855	Report As Is

11. U.S. CFR Title 16 Part 1307 - Toys and Childcare Articles - Phthalates Content (8P)

Test with reference to in-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					001+023	004
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					005+007	006+015
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate,	28553-12-0 ,	%	0.005	0.1	N.D.	N.D.

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Building A2, Jin'ao Industrial Park, No. 150, Jingfang Road, Fuhai, Baoan District, Shenzhen, Guangdong, China

Test Report

No.: 68.431.22.4284.01

Date: 2022-11-22



Greater China

(DINP)	68515-48-0					
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					008+009+010	016+017+020
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	0.010
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					019+033+035	021+022+024
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					026+038+048	027+039+049

Regd. Office: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
 Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China

Phone: +86 755 8828 6998
 Fax: +86 755 8828 5299
 E-mail: info@tuv sud.com
 Web : http://www.tuv sud.cn

Lab 1 - Chemical testing and part of electrical testing Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China

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Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					028+040+050	029+041+051
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
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Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					030+042+052	031+032+034
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.

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Shenzhen, Guangdong, China

Phone: +86 755 8828 6998

Fax: +86 755 8828 5299

E-mail: info@tuv sud.com

Web : http://www.tuvsud.cn

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Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					036+037	043+044+046
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					045+047	053+054+055
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	0.011
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Regd. Office:

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Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
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Fax: +86 755 8828 5299

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Parameter	CAS No.	Unit	MDL	Limit	Result(s)	
					056+057+059	058+060
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Diisobutylphthalate, (DIBP)	84-69-5	%	0.005	0.1	N.D.	N.D.
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	0.014	N.D.
Di-n-hexyl phthalate (DnHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Dicyclohexyl phthalate (DCHP)	84-61-7	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Di-n-pentyl phthalates (DnPP)	131-18-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

12. US California Proposition 65 - Phthalates Content (6P)

Test with reference to in-house method, solvent extracted and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					001+023	004
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					005+007	006+015
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate,	85-68-7	%	0.005	0.1	N.D.	N.D.

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(BBP)						
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					008+009+010	016+017+020
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	0.010
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					019+033+035	021+022+024
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
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Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					026+038+048	027+039+049
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate,	117-81-7	%	0.005	0.1	N.D.	N.D.

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(DEHP)						
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Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					028+040+050	029+041+051
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
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Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					030+042+052	031+032+034
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
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Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					036+037	043+044+046

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Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					045+047	053+054+055
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	N.D.	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	0.011
Conclusion					Pass	Pass

Parameter	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					056+057+059	058+060
Dibutyl phthalate, (DBP)	84-74-2	%	0.005	0.1	0.014	N.D.
Bis (2-ethylhexyl) phthalate, (DEHP)	117-81-7	%	0.005	0.1	N.D.	N.D.
Benzyl butyl phthalate, (BBP)	85-68-7	%	0.005	0.1	N.D.	N.D.
Di-isodecyl phthalate, (DIDP)	26761-40-0 , 68515-49-1	%	0.005	0.1	N.D.	N.D.
Di-n-hexyl phthalate (DNHP)	84-75-3	%	0.005	0.1	N.D.	N.D.
Di-isononyl phthalate, (DINP)	28553-12-0 , 68515-48-0	%	0.005	0.1	N.D.	N.D.
Conclusion					Pass	Pass

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Lab 2 - Physical & Mechanical Test:

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13. Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

In-house method, solvent extraction and determination by LC-MSMS, GC-MS and GC- MSMS.

Compound	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					017	020
Perfluorooctanesulphonic acid 1H,1H,2H,2H (H4PFOS; 6:2)	27619-97-2	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctanoic acid (PFOA)	335-67-1	mg/kg	0.025	0.025	N.D.	N.D.
Ammonium Pentadecafluorooctanoate (APFO)*	3825-26-1	mg/kg	0.025	0.025	N.D.	N.D.
Sodium perfluorooctanoate(Na-PFO)*	335-95-5	mg/kg	0.025	0.025	N.D.	N.D.
Potassium perfluorooctanoate(K-PFO)*	2395-00-8	mg/kg	0.025	0.025	N.D.	N.D.
Silver perfluorooctanoate(Ag-PFO)*	335-93-3	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctanoyl fluoride(F-PFO)*	335-66-0	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctansulfonate (PFOS)	1763-23-1	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctane sulphonamide(PFOSA)	754-91-6	mg/kg	0.025	0.025	N.D.	N.D.
perfluoro-1-octanesulfonyl fluoride (POSF/PFOSF)*	307-35-7	mg/kg	0.025	0.025	N.D.	N.D.
Potassium perfluorooctanesulphonate(PFOS-K)*	2795-39-3	mg/kg	0.025	0.025	N.D.	N.D.
Ammonium perfluorooctanesulfonate(PFOS-NH4)*	29081-56-9	mg/kg	0.025	0.025	N.D.	N.D.
Didecyl(dimethyl)azanium;1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctane-1-sulfonate(PFOS-DDA)*	251099-16-8	mg/kg	0.025	0.025	N.D.	N.D.
Perfluoro-1-octanesulfonic acid, diethanolamine salt(PFOS-NH(OH)2)*	70225-14-8	mg/kg	0.025	0.025	N.D.	N.D.
Lithium perfluorooctylsulfonate(PFOS-Li)*	29457-72-5	mg/kg	0.025	0.025	N.D.	N.D.
Heptadecafluorooctanesulfonic acid tetraethylammonium salt(PFOS-N(C2H5)4)*	56773-42-3	mg/kg	0.025	0.025	N.D.	N.D.
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	mg/kg	0.5	0.5	N.D.	N.D.
Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	mg/kg	0.5	0.5	N.D.	N.D.
Sodium Perfluoro-1-octanesulfonate(PFOS-Na)*	4021-47-0	mg/kg	0.025	0.025	N.D.	N.D.
Conclusion					Pass	Pass

Compound	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					032	034
Perfluorooctanesulphonic acid 1H,1H,2H,2H (H4PFOS; 6:2)	27619-97-2	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctanoic acid (PFOA)	335-67-1	mg/kg	0.025	0.025	N.D.	N.D.
Ammonium Pentadecafluorooctanoate (APFO)*	3825-26-1	mg/kg	0.025	0.025	N.D.	N.D.
Sodium perfluorooctanoate(Na-PFO)*	335-95-5	mg/kg	0.025	0.025	N.D.	N.D.
Potassium perfluorooctanoate(K-PFO)*	2395-00-8	mg/kg	0.025	0.025	N.D.	N.D.
Silver perfluorooctanoate(Ag-PFO)*	335-93-3	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctanoyl fluoride(F-PFO)*	335-66-0	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctansulfonate (PFOS)	1763-23-1	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctane sulphonamide(PFOSA)	754-91-6	mg/kg	0.025	0.025	N.D.	N.D.
perfluoro-1-octanesulfonyl fluoride (POSF/PFOSF)*	307-35-7	mg/kg	0.025	0.025	N.D.	N.D.
Potassium perfluorooctanesulphonate(PFOS-K)*	2795-39-3	mg/kg	0.025	0.025	N.D.	N.D.
Ammonium perfluorooctanesulfonate(PFOS-NH4)*	29081-56-9	mg/kg	0.025	0.025	N.D.	N.D.
Didecyl(dimethyl)azanium;1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-	251099-16-	mg/kg	0.025	0.025	N.D.	N.D.

Regd. Office: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
 Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
 Shenzhen, Guangdong, China

Phone: +86 755 8828 6998
 Fax: +86 755 8828 5299
 E-mail: info@tuv sud.com
 Web : http://www.tuvsud.cn

Lab 1 - Chemical testing and part of electrical testing Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China

Lab 2 - Physical & Mechanical Test: Building A2, Jin'ao Industrial Park, No. 150, Jingfang Road, Fuhai, Baoan District, Shenzhen, Guangdong, China

Test Report

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Greater China

heptadecafluorooctane-1-sulfonate(PFOS-DDA)*	8					
Perfluoro-1-octanesulfonic acid, diethanolamine salt(PFOS-NH(OH)2)*	70225-14-8	mg/kg	0.025	0.025	N.D.	N.D.
Lithium perfluorooctylsulfonate(PFOS-Li)*	29457-72-5	mg/kg	0.025	0.025	N.D.	N.D.
Heptadecafluorooctanesulfonic acid tetraethylammonium salt(PFOS-N(C2H5)4)*	56773-42-3	mg/kg	0.025	0.025	N.D.	N.D.
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	mg/kg	0.5	0.5	N.D.	N.D.
Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	mg/kg	0.5	0.5	N.D.	N.D.
Sodium Perfluoro-1-octanesulfonate(PFOS-Na)*	4021-47-0	mg/kg	0.025	0.025	N.D.	N.D.
Conclusion					Pass	Pass

Compound	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					044	046
Perfluorooctanesulphonic acid 1H,1H,2H,2H (H4PFOS; 6:2)	27619-97-2	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctanoic acid (PFOA)	335-67-1	mg/kg	0.025	0.025	N.D.	N.D.
Ammonium Pentadecafluorooctanoate (APFO)*	3825-26-1	mg/kg	0.025	0.025	N.D.	N.D.
Sodium perfluorooctanoate(Na-PFO)*	335-95-5	mg/kg	0.025	0.025	N.D.	N.D.
Potassium perfluorooctanoate(K-PFO)*	2395-00-8	mg/kg	0.025	0.025	N.D.	N.D.
Silver perfluorooctanoate(Ag-PFO)*	335-93-3	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctanoyl fluoride(F-PFO)*	335-66-0	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctansulfonate (PFOS)	1763-23-1	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctane sulphonamide(PFOSA)	754-91-6	mg/kg	0.025	0.025	N.D.	N.D.
perfluoro-1-octanesulfonyl fluoride (POSF/PFOSF)*	307-35-7	mg/kg	0.025	0.025	N.D.	N.D.
Potassium perfluorooctanesulphonate(PFOS-K)*	2795-39-3	mg/kg	0.025	0.025	N.D.	N.D.
Ammonium perfluorooctanesulfonate(PFOS-NH4)*	29081-56-9	mg/kg	0.025	0.025	N.D.	N.D.
Didecyl(dimethyl)azanium;1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctane-1-sulfonate(PFOS-DDA)*	251099-16-8	mg/kg	0.025	0.025	N.D.	N.D.
Perfluoro-1-octanesulfonic acid, diethanolamine salt(PFOS-NH(OH)2)*	70225-14-8	mg/kg	0.025	0.025	N.D.	N.D.
Lithium perfluorooctylsulfonate(PFOS-Li)*	29457-72-5	mg/kg	0.025	0.025	N.D.	N.D.
Heptadecafluorooctanesulfonic acid tetraethylammonium salt(PFOS-N(C2H5)4)*	56773-42-3	mg/kg	0.025	0.025	N.D.	N.D.
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	mg/kg	0.5	0.5	N.D.	N.D.
Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	mg/kg	0.5	0.5	N.D.	N.D.
Sodium Perfluoro-1-octanesulfonate(PFOS-Na)*	4021-47-0	mg/kg	0.025	0.025	N.D.	N.D.
Conclusion					Pass	Pass

Compound	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					057	059
Perfluorooctanesulphonic acid 1H,1H,2H,2H (H4PFOS; 6:2)	27619-97-2	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctanoic acid (PFOA)	335-67-1	mg/kg	0.025	0.025	N.D.	N.D.
Ammonium Pentadecafluorooctanoate (APFO)*	3825-26-1	mg/kg	0.025	0.025	N.D.	N.D.

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Phone: +86 755 8828 6998
 Fax: +86 755 8828 5299
 E-mail: info@tuvsud.com
 Web : http://www.tuvsud.cn

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Sodium perfluorooctanoate(Na-PFO)*	335-95-5	mg/kg	0.025	0.025	N.D.	N.D.
Potassium perfluorooctanoate(K-PFO)*	2395-00-8	mg/kg	0.025	0.025	N.D.	N.D.
Silver perfluorooctanoate(Ag-PFO)*	335-93-3	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctanoyl fluoride(F-PFO)*	335-66-0	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctansulfonate (PFOS)	1763-23-1	mg/kg	0.025	0.025	N.D.	N.D.
Perfluorooctane sulphonamide(PFOA)	754-91-6	mg/kg	0.025	0.025	N.D.	N.D.
perfluoro-1-octanesulfonyl fluoride (POSF/PFOSF)*	307-35-7	mg/kg	0.025	0.025	N.D.	N.D.
Potassium perfluorooctanesulphonate(PFOS-K)*	2795-39-3	mg/kg	0.025	0.025	N.D.	N.D.
Ammonium perfluorooctanesulphonate(PFOS-NH4)*	29081-56-9	mg/kg	0.025	0.025	N.D.	N.D.
Didecyl(dimethyl)azanium;1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctane-1-sulfonate(PFOS-DDA)*	251099-16-8	mg/kg	0.025	0.025	N.D.	N.D.
Perfluoro-1-octanesulfonic acid, diethanolamine salt(PFOS-NH(OH)2)*	70225-14-8	mg/kg	0.025	0.025	N.D.	N.D.
Lithium perfluorooctylsulfonate(PFOS-Li)*	29457-72-5	mg/kg	0.025	0.025	N.D.	N.D.
Heptadecafluorooctanesulfonic acid tetraethylammonium salt(PFOS-N(C2H5)4)*	56773-42-3	mg/kg	0.025	0.025	N.D.	N.D.
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	mg/kg	0.5	0.5	N.D.	N.D.
Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	mg/kg	0.5	0.5	N.D.	N.D.
Sodium Perfluoro-1-octanesulfonate(PFOS-Na)*	4021-47-0	mg/kg	0.025	0.025	N.D.	N.D.
Conclusion					Pass	Pass

Compound	CAS No.	Unit	MDL	Client's Limit	Result(s)
					025
Perfluorooctanesulphonic acid 1H,1H,2H,2H (H4PFOS; 6:2)	27619-97-2	mg/kg	0.025	0.025	N.D.
Perfluorooctanoic acid (PFOA)	335-67-1	mg/kg	0.025	0.025	N.D.
Ammonium Pentadecafluorooctanoate (APFO)*	3825-26-1	mg/kg	0.025	0.025	N.D.
Sodium perfluorooctanoate(Na-PFO)*	335-95-5	mg/kg	0.025	0.025	N.D.
Potassium perfluorooctanoate(K-PFO)*	2395-00-8	mg/kg	0.025	0.025	N.D.
Silver perfluorooctanoate(Ag-PFO)*	335-93-3	mg/kg	0.025	0.025	N.D.
Perfluorooctanoyl fluoride(F-PFO)*	335-66-0	mg/kg	0.025	0.025	N.D.
Perfluorooctansulfonate (PFOS)	1763-23-1	mg/kg	0.025	0.025	N.D.
Perfluorooctane sulphonamide(PFOA)	754-91-6	mg/kg	0.025	0.025	N.D.
perfluoro-1-octanesulfonyl fluoride (POSF/PFOSF)*	307-35-7	mg/kg	0.025	0.025	N.D.
Potassium perfluorooctanesulphonate(PFOS-K)*	2795-39-3	mg/kg	0.025	0.025	N.D.
Ammonium perfluorooctanesulphonate(PFOS-NH4)*	29081-56-9	mg/kg	0.025	0.025	N.D.
Didecyl(dimethyl)azanium;1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctane-1-sulfonate(PFOS-DDA)*	251099-16-8	mg/kg	0.025	0.025	N.D.
Perfluoro-1-octanesulfonic acid, diethanolamine salt(PFOS-NH(OH)2)*	70225-14-8	mg/kg	0.025	0.025	N.D.
Lithium perfluorooctylsulfonate(PFOS-Li)*	29457-72-5	mg/kg	0.025	0.025	N.D.
Heptadecafluorooctanesulfonic acid tetraethylammonium salt(PFOS-N(C2H5)4)*	56773-42-3	mg/kg	0.025	0.025	N.D.
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	mg/kg	0.5	0.5	N.D.
Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	mg/kg	0.5	0.5	N.D.
Sodium Perfluoro-1-octanesulfonate(PFOS-Na)*	4021-47-0	mg/kg	0.025	0.025	N.D.

Regd. Office:

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Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China

Phone: +86 755 8828 6998

Fax: +86 755 8828 5299

E-mail: info@tuvsud.com

Web : http://www.tuvsud.cn

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Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China

Lab 2 - Physical & Mechanical Test:

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Conclusion	Pass
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Remark: * The test result is based on the calculation of selected marker(s) and to the worst-case scenario.

14. Fluorine(F) Content

Test with reference to BS EN 14582: 2016 and analyzed by Ion Chromatograph (IC).

Compound	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					016	031
Fluorine(F)	-	mg/kg	50	50	N.D.	N.D.
Conclusion					Pass	Pass

Compound	CAS No.	Unit	MDL	Client's Limit	Result(s)	
					043	056
Fluorine(F)	-	mg/kg	50	50	N.D.	N.D.
Conclusion					Pass	Pass

-End of Test Report-



Regd. Office:

TüV Süd Certification and Testing (China) Co., Ltd. Shenzhen Branch
 Building 12&13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
 Shenzhen, Guangdong, China

Phone: +86 755 8828 6998

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E-mail: info@tuvsud.com

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Lab 2 - Physical & Mechanical Test:

Building A2, Jin'ao Industrial Park, No. 150, Jingfang Road, Fuhai, Baoan District, Shenzhen, Guangdong, China