GUANGZHOU ROFU LTD

TEST REPORT

Technical Report: **(9319)025-0903** Jan 31, 2019

Date Received: Jan 25, 2019

RUBY WANG
CRECIMIENTO INDUSTRIAL CO., LTD.
2ND IND. ESTATE, BAISHI SANXIANG, ZHONGSHAN CITY, GUANGDONG PROVINCE, CHINA.

Sample Description: Sample(s) received is/are stated to be:
PU FOAM (BLACK)

Finish Product Manufacturer:	/	No. of Sample Submitted:	2PCS
Material Supplier:	/	Finished Product Distribution:	/
End Use:	Footwear	P.O.#:	/
Age Group:	Adult/ Child		
Sample Taken From:	Production		
Season:	/		
Retest No.:	/		
Overall Conclusion:	PASS		

SAMPLE DESCRIPTION ASSIGNED BY LABORATORY

ITEM	ITEM DESCRIPTION
1	Black plastic

SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION	REMARK
ACETOPHENONE AND 2-PHENYL-2-PROPANOL CONTENT	PASS	
ALKYLPHENOLS (AP) & ALKYLPHENOL ETHOXYLATES (APEO) CONTENT	PASS	
TOTAL CADMIUM CONTENT	PASS	
TOTAL LEAD CONTENT	PASS	
TOTAL MERCURY CONTENT	PASS	
TOTAL HEAVY METALS (Mo, Sb, Co,As)	PASS	
EXTRACTABLE HEAVY METALS CONTENT	PASS	
PERFLUOROOCTANE SULPHONATES (PFOS) CONTENT	PASS	
PERFLUOROOCTANOIC ACID (PFOA) CONTENT	PASS	
PHTHALATES CONTENT	PASS	
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS) CONTENT	PASS	
IONIC AND VOLATILE PERFLUORINATED CHEMICALS (PFCS) CONTENT	DATA	
QUALITATIVE MATERIAL IDENTIFICATION FOR POLYVINYL CHLORIDE (PVC) BY BEILSTEIN TEST	PASS	

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REMARK

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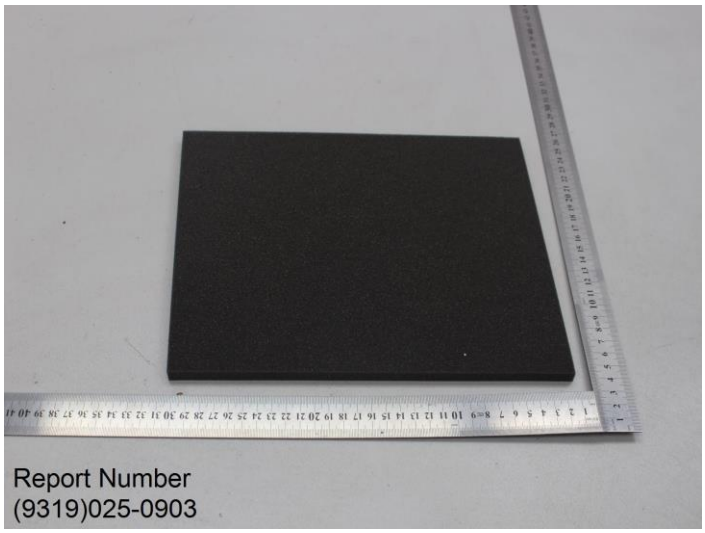
BUREAU VERITAS CONSUMER PRODUCTS SERVICES (GUANGZHOU) CO., LTD

NINA REN
SENIOR MANAGER

Photo of the Submitted Sample



TEST RESULT

Acetophenone and 2-Phenyl-2-propanol Content

Test Method : Organic solvent extraction and analysis by Gas Chromatograph Mass Spectrometer (GC-MS).

Maximum Limit:	**50 mg/kg (Each)**

Tested Item(s)	**Result**			**Conclusion**
	Detected Analyte(s)	**Conc.**	**Unit**	
1	ND	ND	mg/kg	PASS

Note:

ND = Not detected "**>**" = More than
mg/kg = milligram per kilogram
Detection Limit (mg/kg): Each 10

Alkylphenols (AP) & Alkylphenol Ethoxylates (APEO) Content

Test Method : Organic solvent extraction and analyzed by Liquid Chromatograph Mass Spectrometer (LC-MS).

Client's Limit:	**NP and OP: 100 mg/kg(sum)** **OPEO and NPEO: 100 mg/kg(sum)**

Tested Item(s)	**Result**			**Conclusion**
	Detected Analyte(s)	**Conc.**	**Unit**	
1	ND	ND	mg/kg	PASS

Note:

ND = Not detected "**>**" = More than Conc. = Concentration
mg/kg = milligram per kilogram
Detection Limit (mg/kg): Each /Sum(OP & NP) 10; Each /Sum (OPEO & NPEO) 10

Remark:

- The list of alkylphenols and alkylphenol ethoxylates is summarized in table of Appendix.

TEST RESULT

Total Cadmium Content

Test Method : Textiles, plastics, and metal: DIN EN 16711-1:2016
Leather: DIN EN ISO 17072-2:2017.

Client's Limit:	**40 mg/kg**

Parameter	**Unit**	**Result**
-	-	1
Cadmium (Cd)	mg/kg	ND
Conclusion	-	PASS

Note:

ND = Not detected
mg/kg = milligram per kilogram
Detection Limit (mg/kg): 5
">" = More than

TEST RESULT

Total Lead Content

Test Method : Non-metal: CPSC-CH-E1002-08.3
Metal: CPSC-CH-E1001-08.3
Lead in paint and surface coating: CPSIA Section 101 16 CFR 1303

Client's Limit:	**90 mg/kg**

Parameter	**Unit**	**Result**
-	-	1
Lead (Pb)	mg/kg	ND
Conclusion	-	PASS

Note:

ND = Not detected
mg/kg = milligram per kilogram
Detection Limit (mg/kg): 10
">" = More than

Total Mercury Content

Test Method : Textiles, plastics, metal: DIN EN 16711-1:2016
Leather: DIN EN ISO 17072-2:2017

Client's Limit:	**0.5 mg/kg**

Parameter	**Unit**	**Result**
-	-	1
Mercury (Hg)	mg/kg	ND
Conclusion	-	PASS

Note:

ND = Not detected
mg/kg = milligram per kilogram
Detection Limit (mg/kg): 0.1
">" = More than

TEST RESULT

Total Heavy Metals (Mo, Sb, Co,As)

Test Method : Microware digestion and analysis by ICP-OES/MS. (For materials other than metal)
Hot plate digestion with aqua-regia and analysis by ICP-OES/MS. (For metal only)

Client's Limit:	**Type I**	**Children: 100 mg/kg(each)**
	Type II	**Adults: show data**

Parameter	Unit	Result
-	-	1
Type	-	I
Molybdenum (Mo)	mg/kg	ND
Antimony (Sb)	mg/kg	ND
Cobalt (Co)	mg/kg	ND
Arsenic (As)	mg/kg	ND
Conclusion	-	PASS

Note:

ND = Not detected
mg/kg = milligram per kilogram
Detection Limit (mg/kg): Each 10
">" = More than

TEST RESULT

Extractable Heavy Metals Content

Test Method : Sample preparation: Extractable: Textiles: EN ISO 105-E04:2013
Leather: DIN EN ISO 17072-1:2014(For As/Ba/Cd)

Client's Limit:	**Sb**	**As**	**Ba**	**Cd**	**Cr**	**Cr VI**
	30 mg/kg	**0.2 mg/kg**	**1000 mg/kg**	**0.1 mg/kg**	**Textiles: 2 mg/kg Leather footwear for babies: 60 mg/kg**	**Knitted textiles for babies: 0.5 mg/kg**
	Hg	**Ni**	**Se**	**Co**	**Cu**	**Pb**
	0.02 mg/kg	**1 mg/kg**	**500 mg/kg**	**Adults: 4 mg/kg Children and babies: 1 mg/kg**	**Adults: 50 mg/kg Children and babies: 25 mg/kg**	**Adults and children: 1 mg/kg Babies: 0.2 mg/kg**

-	Unit	Result
Tested Item(s)	-	1
Parameter	-	-
Antimony (Sb)	mg/kg	ND
Arsenic (As)	mg/kg	ND
Barium(Ba)	mg/kg	ND
Cadmium (Cd)	mg/kg	ND
Chromium (Cr)	mg/kg	ND
Chromium VI (CrVI)	mg/kg	ND
Cobalt (Co)	mg/kg	ND
Copper (Cu)	mg/kg	ND
Lead (Pb)	mg/kg	ND
Mercury (Hg)	mg/kg	ND
Nickel (Ni)	mg/kg	ND
Selenium (Se)	mg/kg	ND
Conclusion	-	PASS

Note:

ND = Not detected "**>**" = More than NR = Not requested
mg/kg = milligram per kilogram=mg/kg
Detection Limit (mg/kg): Each (As & Cd) 0.02; Each (Co, Cr, Ni & Pb) 0.1; Sb 0.5; Each (Ba& Cu 5; Hg 0.005; Se 50; CrVI(Leather) 3; CrVI(Textiles) 0.5

TEST RESULT

Perfluorooctane Sulphonates (PFOS) Content

Test Method : Organic solvent extraction and analyzed by Liquid Chromatograph Mass Spectrometer (LC-MS).

Client's Limit:	**1 mcg/sq. m**

Tested Item(s)	**Result**	**Unit**	**Conclusion**
1	ND	mcg/sq. m	PASS

Note:

ND = Not detected "**>**" = More than
mcg/sq. m = microgram per square metre
mg/kg = milligram per kilogram
Detection Limit (mcg/sq. m): 1
Detection Limit (mg/kg) : Each 0.01(CPSD-AN-00668)/0.1(CPSD-AN-00752)

Remark:

- The list of perfluorinated alkylated substances is summarized in table of Appendix.

Perfluorooctanoic Acid (PFOA) Content

Test Method : Organic solvent extraction and analyzed by Liquid Chromatograph Mass Spectrometer (LC-MS).

Client's Limit:	**1 mcg/sq. m**

Tested Item(s)	**Result**	**Unit**	**Conclusion**
1	ND	mcg/sq. m	PASS

Note:

ND = Not detected "**>**" = More than
mcg/sq. m = microgram per square metre
mg/kg = milligram per kilogram
Detection Limit (mcg/sq. m): 1
Detection Limit (mg/kg) : Each 0.01

Remark:

- The list of perfluorinated alkylated substances is summarized in table of Appendix.

TEST RESULT

Phthalates Content

Test Method **:** Sample preparation: CPSC-CH-C1001-09.3
Measurement: Textile: GC-MS, EN ISO 14389:2014; Leather: GC-MS

Client's Limit:	**500 mg/kg (Each)** **1000 mg/kg (Sum)**

Tested Item(s)	**Result**			**Conclusion**
	Detected Analyte(s)	**Conc.**	**Unit**	
1	ND	ND	mg/kg	PASS

Note:

ND = Not detected ">" = More than Conc. = Concentration
mg/kg = milligram per kilogram
Detection Limit (mg/kg): Each 50, Sum 150

Remark:

- The list of phthalates is summarized in table of Appendix.

TEST RESULT

Polynuclear Aromatic Hydrocarbons (PAHs) Content

Test Method : AFPS GS 2014

Parameter	**Client's Limit** (mg/kg)		**Result** (mg/kg)
			1
Type	**I**	**II**	I
Benzo(a)anthracene(BaA)	Child care articles : 0.5 mg/kg (Each)	1 mg/kg (Each)	ND
Benzo(a)pyrene (BaP)			ND
Benzo(b)fluoranthene(BbFA)			ND
Benzo(e)pyrene (BeP)			ND
Benzo(j)fluoranthene (BjFA)			ND
Benzo(k)fluoranthene(BkFA)			ND
Chrysene(CHR)			ND
Dibenzo(a,h)anthracene(DBAhA)			ND
Acenaphthene	/		ND
Acenaphthylene			ND
Anthracene			ND
Benzo(g,h,i)perylene			ND
Fluorene			ND
Fluoranthene			ND
Indeno(1,2,3-cd)pyrene			ND
Naphthalene			0.266
Phenanthrene			ND
Pyrene			ND
Sum of 18 PAHs	10 mg/kg		0.266
Conclusion	-		PASS

Note:

ND = Not detected "**>**" = More than Conc. = Concentration
mg/kg = milligram per kilogram
Detection Limit (mg/kg): Each 0.2; Sum 0.2

Remark:

- The list of polynuclear aromatic hydrocarbons is summarized in table of Appendix.

TEST RESULT

Ionic and Volatile Perfluorinated Chemicals (PFCs) Content

Test Method : In house method and analysis by Gas Chromatography (GC) and Liquid Chromatography (LC).

-	Unit	Result
Test Item(s)	-	1
Parameter	-	-
PFBS	mcg/sq. m	ND
PFHxS	mcg/sq. m	ND
PFHpS	mcg/sq. m	ND
PFDS	mcg/sq. m	ND
PFOSA	mcg/sq. m	ND
PFBA	mcg/sq. m	ND
PFPA	mcg/sq. m	ND
PFHxA	mcg/sq. m	ND
PFHpA	mcg/sq. m	ND
PFNA	mcg/sq. m	ND
PFDA	mcg/sq. m	ND
PFUnA	mcg/sq. m	ND
PFDoA	mcg/sq. m	ND
PFTrA	mcg/sq. m	ND
PFTeA	mcg/sq. m	ND
PF-3,7-DMOA	mcg/sq. m	ND
HPFHpA	mcg/sq. m	ND
H2PFDA	mcg/sq. m	ND
H4PFOS 6-2	mcg/sq. m	ND
FTA 6-2	mcg/sq. m	ND
FTA 8-2	mcg/sq. m	ND
FTA 10-2	mcg/sq. m	ND
FTOH 4-2	mcg/sq. m	ND
FTOH 6-2	mcg/sq. m	ND
FTOH 8-2	mcg/sq. m	ND
FTOH 10-2	mcg/sq. m	ND
N-MeFOSE	mcg/sq. m	ND
N-EtFOSE	mcg/sq. m	ND
N-MeFOSA	mcg/sq. m	ND
N-EtFOSA	mcg/sq. m	ND
Conclusion	-	DATA

TEST RESULT

Note / Key :

ND = Not detected ">" = Greater than NR = Not requested
mg/kg = milligram(s) per kilogram
mcg/sq. m = microgram(s) per square meter
Detection Limit (mg/kg) : 0.01
Detection Limit (mcg/sq. m) : Each 1

Remark :

- The list of ionic and volatile perfluorinated chemicals is summarized in table of Appendix.

TEST RESULT

Qualitative Material Identification for Polyvinyl Chloride (PVC) by Beilstein Test

Test Method : Beilstein Test

Client's Limit :	**Negative**

Test Item(s)	Result	Conclusion
1	Negative	PASS

END

APPENDIX

List of Alkylphenols:					
No.	**Name of Analytes**	**CAS-No.**	**No.**	**Name of Analytes**	**CAS-No.**
1	Octylphenol (OP)	Various	2	Nonylphenol (NP)	Various
List of Alkylphenol Ethoxylates:					
No.	**Name of Analytes**	**CAS-No.**	**No.**	**Name of Analytes**	**CAS-No.**
1	Octylphenolethoxylates (OPEOs)	Various	2	Nonylphenolethoxylates (NPEOs)	Various

List of Phthalates:					
No.	**Name of Analytes**	**CAS-No.**	**No.**	**Name of Analytes**	**CAS-No.**
1	Di-iso-nonyl phthalate (DINP)	28553-12-0	7	Di-isobutyl phthalate (DIBP)	84-69-5
2	Di-n-octyl phthalate (DNOP)	117-84-0	8	Di-n-hexyl phthalate (DnHP)	84-75-3
3	Di-2-ethylhexyl phthalate (DEHP)	117-81-7	9	Diethyl phthalate (DEP)	84-66-2
4	Di-iso-decyl phthalate (DIDP)	26761-40-0	10	Dimethyl phthalate (DMP)	131-11-3
5	Butyl benzyl phthalate (BBP)	85-68-7	11	Di-n-pentyl phthalate (DNPP)	131-18-0
6	Dibutyl phthalate (DBP)	84-74-2	12	Dicyclohexyl phthalate (DCHP)	84-61-7

List of Polynuclear Aromatic Hydrocarbons:					
No.	**Name of Analytes**	**CAS-No.**	**No.**	**Name of Analytes**	**CAS-No.**
1	Naphthalene	91-20-3	10	Chrysene (CHR)	218-01-9
2	Acenaphthylene	208-96-8	11	Benzo (a) pyrene(BaP)	50-32-8
3	Acenaphthene	83-32-9	12	Indeno (1,2,3-cd) pyrene	193-39-5
4	Fluorene	86-73-7	13	Dibenzo (a,h) anthracene(DBahA)	53-70-3
5	Phenanthrene	85-01-8	14	Benzo (g,h,i) perylene	191-24-2
6	Antracene	120-12-7	15	Benzo (b) fluoranthene(BbFA)	205-99-2
7	Fluoranthene	206-44-0	16	Benzo (k) fluoranthene(BkFA)	207-08-9
8	Pyrene	129-00-0	17	Benzo (j) fluoranthene(BjFA)	205-82-3
9	Benzo (a) anthracene(BaA)	56-55-3	18	Benzo (e) pyrene(BeP)	192-97-2

List of Perfluorinated Alkylated Substances:					
No.	**Name of Analytes**	**CAS-No.**	**No.**	**Name of Analytes**	**CAS-No.**
1	Perfluoro-octane sulphonate (PFOS)	1763-23-1 or 2795-39-3	2	Perfluoro-octanoic acid (PFOA)	335-67-1

List of Ionic Perfluorinated Chemicals (PFCs) :					
No.	**Name of Analyte(s)**	**CAS-No.**	**No.**	**Name of Analyte(s)**	**CAS-No.**
1	Perfluorobutanesulfonic acid (PFBS)	375-73-5 or 29420-49-3	11	Perfluoro-n-decanoic acid (PFDA)	335-76-2
2	Perfluorohexanesulfonic acid (PFHxS)	355-46-4 or 3871-99-6	12	Perfluoroundecanoic Acid (PFUnA)	2058-94-8 or 4234-23-5
3	Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8 or 60270-55-5	13	Perfluorododecanoic Acid (PFDoA)	307-55-1
4	Perfluorodecane sulfonic acid (PFDS)	335-77-3 or 126105-34-8	14	Perfluorotridecanoic Acid (PFTrA)	72629-94-8
5	Perfluorooctane Sulfonamide (PFOSA)	754-91-6	15	Perfluorotetradecanoic Acid (PFTeA)	376-06-7
6	Perfluorobutyric Acid (PFBA)	375-22-4	16	Perfluoro-3,7-dimethyloctanoic acid (PF-3,7-DMOA)	172155-07-6
7	Perfluoropentanoic Acid (PFPA)	2706-90-3	17	7H-Perfluoroheptanoic acid (HPFHpA)	1546-95-8
8	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	18	2H,2H-Perfluorodecanoic acid (H2PFDA)	-
9	Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	19	1H,1H,2H,2H-Perfluorooctanesulphonic acid (H4PFOS 6-2)	27619-97-2
10	Perfluoro-n-nonanoic acid (PFNA)	375-95-1	-		
List of Volatile Perfluorinated Chemicals (PFCs) :					
No.	**Name of Analyte(s)**	**CAS-No.**	**No.**	**Name of Analyte(s)**	**CAS-No.**
1	1H,1H,2H,2H-Perfluorooctylacrylate (FTA 6-2)	17527-29-6	7	2-Perfluorodecylethanol (FTOH 10-2)	865-86-1
2	1H,1H,2H,2H-Perfluorodecylacrylate (FTA 8-2)	27905-45-9	8	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol (N-MeFOSE)	24448-09-7
3	1H,1H,2H,2H-Perfluorododecylacrylate (FTA 10-2)	17741-60-5	9	2-(N-Ethylperfluoro-1-octanesulfonamido)-ethanol (N-EtFOSE)	1691-99-2
4	2-Perfluorobutylethanol (FTOH 4-2)	2043-47-2	10	N-Methylperfluoro-1-octanesulfonamide (N-MeFOSA)	31506-32-8
5	2-Perfluorohexylethanol (FTOH 6-2)	647-42-7	11	N-Ethylperfluoro-1-octanesulfonamide (N-EtFOSA)	4151-50-2
6	2-Perfluorooctylethanol (FTOH 8-2)	678-39-7	-	-	-
CAS-No. = Chemical Abstracts Service registry number					