

No.: PRT13032000101 Date: 20 Mar 2013 Page 1 of 12

**Applicant** :Dong Guan CITY Ming Yu Shoe Materials Co., Ltd. Address :Village, Liaoxia, Houjie Town, Dong Guan City

Sample Name: :Non-woven

Color :Black

Buyer Supplier:

Manufacturer:

Receipt Date of Sample: 15 Mar 2013

Date of Testing: 15 Mar 2013 to 20 Mar 2013

**Test Requested** : REACH

> Registration, Evaluation, Authorization and restriction of Chemicals (REACH)EC No. 1907/2006 - Analysis of the 138 substances of very high concern (SVHC) on the Candidate List for authorization, concerning Regulation (EC) No 1907/2006 as published on the European Chemicals Agency (ECHA) website in October 2008, January 2010, March 2010, June 2010, December 2010, June 2011, December 2011, June 2012 and

December 2012.

Test Method : In house method and Analysis based on LC-MS, GC-MS,GC-ECD,

Headspace-GCMS,ICP-OES/AAS,VU-VIS,XRF and HPLC-DAD.

**Test Results** : Please refer to next page(s).

Prepared by:

Reviewed by:

anter



No. : PRT13032000101 Date: 20 Mar 2013 Page 2 of 12

#### 138 Items SVHC Test Results

Analysis of the 138 substances of very high concern (SVHC) on the Candidate List for authorization, concerning Regulation (EC) No. 1907/2006 as published on the European Chemicals Agency (ECHA) website in October 2008, January 2010, March 2010, June 2010, December 2010, June 2011, December 2011 and June 2012 and December 2012. Analysis based on LCMS, GCMS, Headspace-GCMS, ICP-OES/AAS, UV-VIS and XRF.

No.	Substance name	CAS No.	Results	Report Limit %
1	Anthracene	120-12-7	N.D.	0.01
2	4,4' -Diaminodiphenyl methane(MDA)	101-77-9	N.D.	0.01
3	Dibutylphthalate(DBP)	84-74-2	N.D.	0.01
4	Cobalt dichloride*	7646-79-9	N.D.	0.03
5	Diarsenic pentaoxide*	1303-28-2	N.D.	0.03
6	Diarsenic trioxide*	1327-53-3	N.D.	0.03
7	Sodium dichromate*	7789-12-0 10588-01-9	N.D.	0.03
8	5-tert-butyl-2,4,6-trinitro-m-xylent(m usk xylene)	81-15-2	N.D.	0.01
9	Bis-(2-ethylhexyl)phthalate (DEHP)	117-81-7	N.D.	0.01
10	Hexabromo Cyclododecane(HBCDD) and all major diastereoisomers Identitied: a-HBCDD b-HBCDD c-HBCDD	3194-55-6 25637-99-4 134237-50-613 4237-51-7 134237-52-8	N.D.	0.01
11	Alkanes,C10-13, chloro(Short Chain Chlorinated paraffins)	85535-84-8	N.D.	0.01
12	Bis(tributyltin)oxide(TBTO) *	56-35-9	N.D.	0.01
13	Lead hydrogen arsenate*	7784-40-9	N.D.	0.03
14	Benzyl butyl phthalate(BBP)	85-68-7	N.D.	0.01



No.: PRT13032000101 Date: 20 Mar 2013 Page 3 of 12

No.	Substance name	CAS No.	Results	Report Limit %
15	Triethyl arsenate*	15606-95-8	N.D.	0.03
16	2,4-Dinitrotoluene	121-14-2	N.D.	0.05
17	Diisobutyl phthalate	84-69-5	N.D.	0.05
18	tris(2-chloroethyl)phosphate	115-96-8	N.D.	0.05
19	Anthracene oil^	90640-80-5	N.D.	0.05
20	Anthracene oil,anthracene paste, distn.lights^	91995-17-4	N.D.	0.05
21	Anthracene oil,anthracene paste, anthracene fraction^	91995-15-2	N.D.	0.05
22	Anthracene oil,anthracene-low <sup>^</sup>	90640-82-7	N.D.	0.05
23	Anthracene oil,anthracene paste^	90640-81-6	N.D.	0.05
24	Pitch,coal tar,high temperature^	65996-93-2	N.D.	0.01
25	Lead sulfochromate yellow(C.I. Pigment Yellow 34)*	1344-37-2	N.D.	0.05
26	Lead chromate molybdate sulphate red(C.I.Pigment Red 104)*	1265-85-8	N.D.	0.05
27	Lead chromate*	7758-97-6	N.D.	0.01
28	Acrylamide	769-06-1	N.D.	0.01
29	Trichloroethylene	79-01-6	N.D.	0.01
30	Boric acid*	10043-35-3 11113-50-1	N.D.	0.03
31	Disodium tetraborate,anhydrous*	1330-43-4 12179-04-3 1303-96-4	N.D.	0.03
32	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	N.D.	0.03
33	Sodium chromate*	7775-11-3	N.D.	0.03



No.: PRT13032000101 Date: 20 Mar 2013 Page 4 of 12

No.	Substance name	CAS No.	Results %	Report Limit %
34	Potassium chromate*	7789-00-6	N.D.	0.03
35	Ammonium dichromate*	7789-09-5	N.D.	0.03
36	Potassium dichromate*	7778-50-9	N.D.	0.03
37	Cobalt(II) sulphate*	10124-43-3	N.D.	0.03
38	Cobalt(II) dinitrate*	10041-05-6	N.D.	0.03
39	Cobalt(II) carbonate*	513-79-1	N.D.	0.03
40	Cobalt(II) diacetate*	71-48-7	N.D.	0.03
41	2-Methoxythanol	109-86-4	N.D.	0.01
42	2-Ethoxyethanol	110-80-5	N.D.	0.01
43	Chromium trioxide*	1333-82-0	N.D.	0.03
44	Acids generated form chromium trioxide and their oligomers: * Chromic acid Dichromic acid	7738-94-5 13530-68-2	N.D.	0.03
45	2-Ethoxyethyl acetate (2-EEA)	7775-11-3	N.D.	0.03
46	Strontium chromate*	7789-00-6	N.D.	0.03
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) ***	7789-09-5	N.D.	0.03
48	Hydrazine	7778-50-9	N.D.	0.03
49	1-Methyl-2-pyrrolidone	10124-43-3	N.D.	0.03
50	1,2,3-Trichloropropane	10041-05-6	N.D.	0.03
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	513-79-1	N.D.	0.03



No.: PRT13032000101 Date: 20 Mar 2013 Page 5 of 12

No.	Substance name	CAS No.	Results %	Report Limit %
52	1,2-Dichloroethane	107-06-2	N.D.	0.01
53	2,2'-Dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	N.D.	0.01
54	2-Methoxyaniline, o-Anisidine	90-04-0	N.D.	0.01
55	4-(1,1,3,3-Tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	N.D.	0.01
56	Aluminosilicate Refractory Ceramic Fibres [oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges]		N.D.	0.03
57	Arsenic acid*	7778-39-4	N.D.	0.03
58	Bis(2-methoxyethyl) ether	111-96-6	N.D.	0.01
59	Bis(2-methoxyethyl) phthalate	117-82-8	N.D.	0.01
60	Calcium arsenate*	7778-44-1	N.D.	0.01
61	Dichromium tris(chromate)*	24613-89-6	N.D.	0.01
62	Formaldehyde, oligomeric reaction products with aniline (technical MDA)^	25214-70-4	N.D.	0.01
63	Lead diazide*	13424-46-9	N.D.	0.03
64	Lead dipicrate*	6477-64-1	N.D.	0.03
65	Lead styphnate*	15245-44-0	N.D.	0.03
66	N,N-dimethylacetamide (DMAC)	127-19-5	N.D.	0.01
67	Pentazinc chromate octahydroxide*	49663-84-5	N.D.	0.03
68	Phenolphthalein	77-09-8	N.D.	0.01
69	Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	N.D.	0.03
70	Trilead diarsenate*	3687-31-8	N.D.	0.03
71	Zirconia Aluminosilicate Refractory Ceramic Fibres [oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges)]		N.D.	0.03



No.: PRT13032000101 Date: 20 Mar 2013 Page 6 of 12

No.	Substance name	CAS No.	Results %	Report Limit %
72	1,2-bis (2-methoxyethoxy) ethane (TEGDME; triglyme)	112-49-2	N.D.	0.05
73	1,2-dimethoxyethane; ethylene glycol dimethl ether (EGDME)	110-71-4	N.D.	0.05
74	Formamide	75-12-7	N.D.	0.05
75	Lead (II) bis(methanesulfonate)***	17570-76-2	N.D.	0.05
76	TGIC (1,3,5-tris(oxiranylmethl)-1,3,5-triazine-2,4,6()1H ,3H,5-trione)	2451-62-9	N.D.	0.05
77	β -TGIC (1,3,5-tris[(2S and 2R) -2,3-exoypropyl]1,3,5-triazine2,4,6-(1H,3H,5H)-t rione)	59653-74-6	N.D.	0.05
78	4,4 ' - bis (dimethylamino) benzophenone (Michler' s ketone)	90-94-8	N.D.	0.05
79	N,N,N',N,' - tetramethyl- 4,4' - methlenedianline (Micher's base)	101-61-1	N.D.	0.05
80	[4-[4,4 ' - bis(dimethylamino) benzhyrylidene] cyclohexa-2,5-dien-1-ylidene] dimethlammonium chloride (C.I. Basic Violet 3)	548-62-9	N.D.	0.05
81	[4-[4,4' -bis(dimethlamine) benzhydrylidene]cyclohexa-2,5- dien-1- yliene] dimethylammonium chloride (C.C.Basic Blue 26)	2580-56-5	N.D.	0.05
82	$\alpha$ , $\alpha$ -Bis[4-(dimethlamino) phenyl] -4(phenylamino) naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0	N.D.	0.05
83	Diboron trioxide***	1303-86-2	N.D.	0.05
84	4,4' - bis(dimethylamino)-4' '-(methlamino) trityl alcohol	561-41-1	N.D.	0.05



No.: PRT13032000101 Date: 20 Mar 2013 Page 7 of 12

No.	Substance name	CAS No.	Results %	Report Limit %
85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	N.D.	0.020
86	Pentacosafluorotridecanoic acid	72629-94-8	N.D.	0.020
87	Tricosafluorododecanoic acid	307-55-1	N.D.	0.020
88	Henicosafluoroundecanoic acid	2058-94-8	N.D.	0.020
89	Heptacosafluorotetradecanoic acid	376-06-7	N.D.	0.020
90	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	N.D.	0.020
91	Cyclohexane-1,2-dicarboxylic anhydride [1] cis-cyclohexane-1,2-dicarboxylic anhydride [2] trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry].	85-42-7, 13149-00-3, 14166-21-3	N.D.	0.020
92	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	N.D.	0.020
93	4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	N.D.	0.020
94	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	N.D.	0.020



No.: PRT13032000101 Date: 20 Mar 2013 Page 8 of 12

No.	Substance name	CAS No.	Results %	Report Limit %
95	Methoxyacetic acid	625-45-6	N.D.	0.020
96	N,N-dimethylformamide	68-12-2	N.D.	0.020
97	Dibutyltin dichloride (DBTC)	683-18-1	N.D.	0.020
98	Lead monoxide (Lead oxide)	1317-36-8	N.D.	0.020
99	Orange lead (Lead tetroxide)	1314-41-6	N.D.	0.020
100	Lead bis(tetrafluoroborate)	13814-96-5	N.D.	0.020
101	Trilead bis(carbonate)dihydroxide	1319-46-6	N.D.	0.020
102	Lead titanium trioxide	12060-00-3	N.D.	0.020
103	Lead titanium zirconium oxide	12626-81-2	N.D.	0.020
104	Silicic acid, lead salt	11120-22-2	N.D.	0.020
105	Silicic acid (H2Si2O5), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]	68784-75-8	N.D.	0.020
106	1-bromopropane (n-propyl bromide)	106-94-5	N.D.	0.020
107	Methyloxirane (Propylene oxide)	75-56-9	N.D.	0.020
108	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	N.D.	0.020
109	Diisopentylphthalate (DIPP)	605-50-5	N.D.	0.020
110	N-pentyl-isopentylphthalate	776297-69-9	N.D.	0.020
111	1,2-diethoxyethane	629-14-1	N.D.	0.020
112	Acetic acid, lead salt, basic	51404-69-4	N.D.	0.020
113	Lead oxide sulfate	12036-76-9	N.D.	0.020
114	[Phthalato(2-)]dioxotrilead	69011-06-9	N.D.	0.020
115	Dioxobis(stearato)trilead	12578-12-0	N.D.	0.020
116	Fatty acids, C16-18, lead salts	91031-62-8	N.D.	0.020
117	Lead cynamidate	20837-86-9	N.D.	0.020
118	Lead dinitrate	10099-74-8	N.D.	0.020
119	Pentalead tetraoxide sulphate	12065-90-6	N.D.	0.020



No.: PRT13032000101 Date: 20 Mar 2013 Page 9 of 12

No.	Substance name	CAS No.	Results %	Report Limit %
120	Pyrochlore, antimony lead yellow	8012-00-8	N.D.	0.020
121	Sulfurous acid, lead salt, dibasic	62229-08-7	N.D.	0.020
122	Tetraethyllead	78-00-2	N.D.	0.020
123	Tetralead trioxide sulphate	12202-17-4	N.D.	0.020
124	Trilead dioxide phosphonate	12141-20-7	N.D.	0.020
125	Furan	110-00-9	N.D.	0.020
126	Diethyl sulphate	64-67-5	N.D.	0.020
127	Dimethyl sulphate	77-78-1	N.D.	0.020
128	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidi ne	143860-04-2	N.D.	0.020
129	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	N.D.	0.020
130	4,4'-methylenedi-o-toluidine	838-88-0	N.D.	0.020
131	4,4'-oxydianiline and its salts	101-80-4	N.D.	0.020
132	4-aminoazobenzene	60-09-3	N.D.	0.020
133	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	N.D.	0.020
134	6-methoxy-m-toluidine (p-cresidine)	120-71-8	N.D.	0.020
135	Biphenyl-4-ylamine	92-67-1	N.D.	0.020
136	o-aminoazotoluene [(4-o-tolylazo-o-toluidine])	97-56-3	N.D.	0.020
137	o-toluidine	95-53-4	N.D.	0.020
138	N-methylacetamid	79-16-3	N.D.	0.020



No. : PRT13032000101 Date: 20 Mar 2013 Page 10 of 12

#### Note:

#### 1) \* means:

Calculated concentration of cobalt dichloride is based on the identified cobalt by ICP-OES or the identified chloride by IC method;

Calculated concentration of bis(tributyltin)oxide TBTO is based on the identified tin by ICP-OES and TLC;

Calculated concentration of diarsenic pentaoxide, diarsenic trioxide, lead hydrogen arsenate, triethyl arsenate, sodium dichromate and acids generated from chromium trioxide and their oligomers: a. Chromic acid b. Dichromic acid c. Oligomers of chromic acid and dichromic acid are based on the identified element result (i.e. Arsenic, Lead, Hexavalent Chromium respectively);

Calculated concentration of Aluminosilicate Refractory Ceramic Fibres, Zirconia Aluminosilicate Refractory Ceremic Fibres, Lead sulfochromate yellow (C.I. Pigment Yellow 34) and Lead chromate are based on the identified element result (i.e. lead, chromium, silicon, aluminum and zirconium respectively);

Calculated concentration of Boric acid, Disodium tetraborate, anhydrous (also include the

pentahydrate and decahydrate salts), Tetraboron disodium heptaoxide, hydrate, Sodium chromate, Potassium chromate, Ammonium dichromate and Potassium dichromate are based on the identified element result (i.e. boron, sodium, hexavalent Chromium respectively);

Calculated concentration of Cobalt(II) sulphate, Cobalt(II) dinitrate, Cobalt(II) carbonate, Cobalt(II) diacetate are based on the identified cobalt by ICP-OES;

Calculated concentration of Strontium chromate are based on on the identified element result(Strontium &Hexavalent Chromium);

Reporting limit is evaluated for element ( i.e. lead ,cobalt, arsenic, hexavalent chromium, chromium, silicon, aluminum and zirconium );

Identity of the metal substances present in the article has to be further confirmed.

### 2) \*\* means

Calculated concentration of Disodium tetraborate, anhydrous (also include the pentahydrate and decahydrate salts), Tetraboron disodium heptaoxide, hydrate, are based on the qualitative result performed by FT-IR.

#### 3) \*\*\* means

The substances are UVCB (substance of unknown or variable composition, complex reaction products or biological material), the test results are calculated based on the main constituents.

### 4) ^ means:

The SVHC consists of a diverse combination of chemical compounds fulfilling the definition of UVCB (substances of Unknown or Variable composition, Complex reaction products or Biological materials) under REACH regulation. Test result is calculated as per selected identifiers of the SVHC. The values are determined based on a reference anthracene oil and coal tar. Calculation is based on the worst-case scenario. Due to the UVCB nature the reported values may be regarded as semi-quantitative.

#### 5)# means:

Concentration of the SVHC was conversion of test results of the corresponding metal ion

- 6) N.D. = Not detected (lower than reporting limit).
- 7) % means percentage by weight.
- 8) All reporting limit is based on homogenous material.



No.: PRT13032000101 Date: 20 Mar 2013 Page 11 of 12

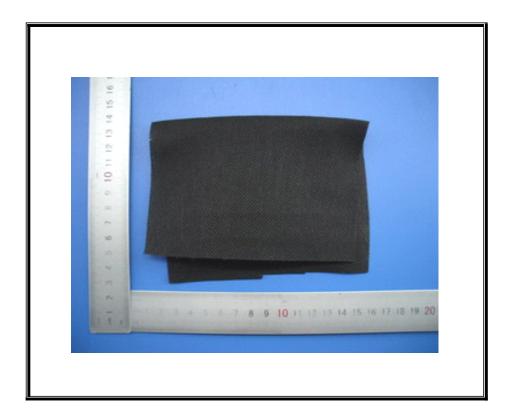
#### Remark

- 1) Definition of classification is listed in Annex 02 of this report in accordance with Directive 67/548/EEC Regulation (EC) No 1907/2006.
- 2) In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify the European Chemicals Agency (ECHA), in accordance with Article 59(1) of the Regulation if:
  - the substance is present in those articles in quantities totaling over one tone per producer or importer per year;
  - the substance is present in those articles above a concentration of 0.1% weight by weight (w/w).
- 3) Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.
- 4) The material is identified and described by client.



No.: PRT13032000101 Date: 20 Mar 2013 Page 12 of 12

### Sample photo:



PRT authenticate the photo on original report only \*\*\*\*\*\* \*\*\*\*\*\* \*\*\*\*\*\* End of Report \*\*\*\*\*\* \*\*\*\*\*\*\*