



# TEST REPORT

NO.: A001C110808029001-1

Date: Aug 12, 2011

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**Applicant:** SHENZHEN MINRUI ADHESIVE PRODUCTS CO.,LTD

**Address:** FLOOR 1,BUILDING 1,NANYOU THE 4TH INDUSTRIAL ZONE ,NANSHAN DISTRICT SHENZHEN  
CHINA

**Report on the submitted sample said to be**

**Sample name:** FRAGILE PAPER

**Model:** /

**Item/Lot No.:** /

**Material:** /

**Buyer:** /

**Supplier:** /

**Manufacturer:** /

**Sample received date:** Aug 08, 2011

**Testing period:** From Aug 08, 2011 to Aug 12, 2011

**Testing Requested:**

As specified by client, based on the list published by European chemicals agency (ECHA) for public consultation regarding regulation (EC) No 1907/2006 concerning the REACH, to determine the fifty-three(53) Substances of Very High Concern (SVHC) content in the submitted sample.

**Testing method:**

Please refer to next page(s)

**Testing instrument:**

Please refer to next page(s)

\*\*\*\*\*FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S)\*\*\*\*\*

Signed for and on behalf of  
Shenzhen AOV Testing Technology Co., Ltd

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## Test Results:

Code	Testing Item	Pretreatment method/ Measuring instrument	Unit	MDL	A	SVHC Item
1	Tin	EPA 3052, ICP-OES	mg/kg	5	131	Bis(tributyltin)oxide **
2	Arsenic	EPA 3052, ICP-OES	mg/kg	5	N.D.	Diarsenic pentaoxide **
						Diarsenic trioxide **
						Triethyl arsenate **
						Lead hydrogen arsenate **
3	Lead	EPA 3052, ICP-OES	mg/kg	5	N.D.	Lead hydrogen arsenate **
4	Cobalt	EPA 3052, ICP-OES	mg/kg	5	N.D.	Cobalt dichloride **
5	Hexavalent Chromium	EPA 3060A, UV-VIS	mg/kg	2	N.D.	Sodium dichromate **
6	Anthracene	ZEK 01.2-08, GC-MS	mg/kg	0.2	N.D.	Anthracene
7	4,4'-Diaminodiphenylmethane	EPA 3540C, GC-MS	mg/kg	5	N.D.	4,4'-Diaminodiphenylmethane
8	Dibutyl phthalate (DBP)	EPA 3540C, GC-MS	mg/kg	30	N.D.	Dibutyl phthalate (DBP)
9	Benzyl butyl phthalate (BBP)	EPA 3540C, GC-MS	mg/kg	30	N.D.	Benzyl butyl phthalate (BBP)
10	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	EPA 3540C, GC-MS	mg/kg	5	N.D.	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)
11	Bis (2-ethyl(hexyl)phthalate) (DEHP)	EPA 3540C, GC-MS	mg/kg	30	N.D.	Bis (2-ethyl(hexyl)phthalate) (DEHP)
12	Hexabromocyclododecane (HBCDD) and all major Diastereoisomers identified	EPA 3540C, GC-MS	mg/kg	50	N.D.	Hexabromocyclododecane (HBCDD) and all major Diastereoisomers identified
13	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	EPA 3540C, GC-MS	mg/kg	50	N.D.	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)
14	Anthracene oil	ZEK 01.2-08, GC-MS	mg/kg	0.2	N.D.	Anthracene oil
15	Anthracene oil, anthracene paste, distn. lights	ZEK 01.2-08, GC-MS	mg/kg	0.2	N.D.	Anthracene oil, anthracene paste, distn. lights
16	Anthracene oil, anthracene paste, anthracene fraction	ZEK 01.2-08, GC-MS	mg/kg	0.2	N.D.	Anthracene oil, anthracene paste, anthracene fraction
17	Anthracene oil, anthracene-low	ZEK 01.2-08, GC-MS	mg/kg	0.2	N.D.	Anthracene oil, anthracene-low
18	Anthracene oil, anthracene paste	ZEK 01.2-08, GC-MS	mg/kg	0.2	N.D.	Anthracene oil, anthracene paste

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Code	Testing Item	Pretreatment method/ Measuring instrument	Unit	MDL	A	SVHC Item
19	Pitch, coal tar, high temp.	Distilment	mg/kg	/	N.D.	Pitch, coal tar, high temp.
20	Acrylamide	EPA 3550C, GC-MS	mg/kg	50	N.D.	Acrylamide
21	Silicon	EPA 3052, ICP-OES	mg/kg	5	1511	Aluminosilicate Refractory Ceramic Fibres **; Zirconia Aluminosilicate, Refractory Ceramic Fibres **
22	Aluminum	EPA 3052, ICP-OES	mg/kg	5	92	
23	Zirconium	EPA 3052, ICP-OES	mg/kg	5	N.D.	
24	2,4-Dinitrotoluene	EPA 3540C, GC-MS	mg/kg	10	N.D.	2,4-Dinitrotoluene
25	Diisobutyl phthalate(DIBP)	EPA 3540C, GC-MS	mg/kg	30	225	Diisobutyl phthalate(DIBP)
26	Hexavalent Chromium	EPA 3060A, UV-VIS	mg/kg	2	N.D.	Lead chromate **, Lead sulfochromate yellow (C.I.Pigment Yellow 34)**; Lead chromate molybdate sulphate red (C.I. Pigment Red 104)**
27	Lead	EPA 3052, ICP-OES	mg/kg	5	N.D.	
28	Molybdenum	EPA 3052, ICP-OES	mg/kg	5	N.D.	
29	tris(2-chloroethyl)phosphate	EPA 3540C, GC-MS	mg/kg	10	N.D.	tris(2-chloroethyl)phosphate
30	Trichloroethylene	EPA 3540C, GC-MS	mg/kg	50	N.D.	Trichloroethylene
31	Boron	EPA 3052, ICP-OES	mg/kg	5	N.D.	Boric acid**, Disodium tetraborate, anhydrous**, Tetraboron disodium heptaoxide, hydrate**
32	Hexavalent Chromium	EPA 3060A, UV-VIS	mg/kg	2	N.D.	Sodium chromate**, Potassium chromate**, Ammonium dichromate**, Potassium dichromate**
33	Cobalt	EPA 3052, ICP-OES	mg/kg	5	N.D.	Cobalt(II) sulphate**, Cobalt(II) dinitrate**, Cobalt(II) carbonate**, Cobalt(II) diacetate**
34	2-Methoxyethanol	EPA 8260C, HS-GC-MS	mg/kg	5	N.D.	2-Methoxyethanol
35	2-Ethoxyethanol		mg/kg	5	N.D.	2-Ethoxyethanol
36	Hexavalent Chromium	EPA 3060A, UV-VIS	mg/kg	2	N.D.	Chromium trioxide**, Acids generated from chromium trioxide and their oligomers: Chromic acid**, Dichromic acid**, Oligomers of chromic acid and dichromic acid**

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Code	Testing Item	Pretreatment method/ Measuring instrument	Unit	MDL	A	SVHC Item
37	2-ethoxyethyl acetate	EPA 3540C, GC-MS	mg/kg	5	N.D.	2-ethoxyethyl acetate
38	Hexavalent Chromium	EPA 3060A, UV-VIS	mg/kg	2	N.D.	Strontium chromate**
39	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	EPA 3540C, GC-MS	mg/kg	50	N.D.	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters
40	Hydrazine	EPA 8260C, HS-GC-MS	mg/kg	5	N.D.	Hydrazine
41	1-methyl-2-pyrrolidone	EPA 3540C, GC-MS	mg/kg	5	N.D.	1-methyl-2-pyrrolidone
42	1,2,3-trichloropropane	EPA 3540C, GC-MS	mg/kg	5	N.D.	1,2,3-trichloropropane
43	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters,C7-rich	EPA 3540C, GC-MS	mg/kg	50	N.D.	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters,C7-rich

## SVHC Concentration

Code	Test Item	CAS No.	EC No.	Unit	A
1	Bis(tributyltin)oxide**	56-35-9	200-268-0	%	<0.1
2	Diarsenic pentaoxide**	1303-28-2	215-116-9	%	<0.1
3	Diarsenic trioxide**	1327-53-3	215-481-4	%	<0.1
4	Triethyl arsenate**	15606-95-8	427-700-2	%	<0.1
5	Lead hydrogen arsenate**	7784-40-9	232-064-2	%	<0.1
6	Cobalt dichloride**	7646-79-9	231-589-4	%	<0.1
7	Sodium dichromate **	7789-12-0, 10588-01-9	234-190-3	%	<0.1
8	Anthracene	120-12-7	204-371-1	%	<0.1
9	4,4'-Diaminodiphenylmethane	101-77-9	202-974-4	%	<0.1
10	Dibutyl phthalate(DBP)	84-74-2	201-557-4	%	<0.1
11	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	%	<0.1
12	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4	%	<0.1
13	Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	204-211-0	%	<0.1
14	Hexabromocyclododecane(HBCDD) and all major diastereoisomers identified	25637-99-4 and 3194-5 5-6(134237-50-6,13423 7-51-7,134237-52-8)	247-148-4, 221-695-9	%	<0.1
15	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	287-476-5	%	<0.1
16	Anthracene oil	90640-80-5	292-602-7	%	<0.1
17	Anthracene oil, anthracene paste,distr. lights	91995-17-4	295-278-5	%	<0.1
18	Anthracene oil, anthracene paste,anthracene fraction	91995-15-2	295-275-9	%	<0.1

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Code	Test Item	CAS No.	EC No.	Unit	A	
19	Anthracene oil, anthracene-low	90640-82-7	292-604-8	%	<0.1	
20	Anthracene oil, anthracene paste	90640-81-6	292-603-2	%	<0.1	
21	Pitch, coal tar, high temp.	65996-93-2	266-028-2	%	<0.1	
22	Acrylamide	79-06-1	201-173-7	%	<0.1	
23	Aluminosilicate Refractory Ceramic Fibres **	--	--	%	<0.1	
24	Zirconia Aluminosilicate, Refractory Ceramic Fibres **	--	--	%	<0.1	
25	2,4-Dinitrotoluene	121-14-2	204-450-0	%	<0.1	
26	Diisobutyl phthalate(DIBP)	84-69-5	201-553-2	%	<0.1	
27	Lead chromate**	7758-97-6	231-846-0	%	<0.1	
28	Lead chromate molybdate sulphate red (C.I. Pigment Red 104) **	12656-85-8	235-759-9	%	<0.1	
29	Lead sulfochromate yellow (C.I.Pigment Yellow 34) **	1344-37-2	215-693-7	%	<0.1	
30	tris(2-chloroethyl)phosphate	115-96-8	204-118-5	%	<0.1	
31	Trichloroethylene	79-01-6	201-167-4	%	<0.1	
32	Boric acid**	10043-35-3/ 11113-50-1	233-139-2/23 4-343-4	%	<0.1	
33	Disodium tetraborate, anhydrous**	1330-43-4/ 12179-04-3/ 1303-96-4	215-540-4	%	<0.1	
34	Tetraboron disodium heptaoxide, hydrate**	12267-73-1	235-541-3	%	<0.1	
35	Sodium chromate**	7775-11-3	231-889-5	%	<0.1	
36	Potassium chromate**	7789-00-6	232-140-5	%	<0.1	
37	Ammonium dichromate**	7789-09-5	232-143-1	%	<0.1	
38	Potassium dichromate**	7778-50-9	231-906-6	%	<0.1	
39	Cobalt(II) sulphate**	10124-43-3	233-334-2	%	<0.1	
40	Cobalt(II) dinitrate**	10141-05-6	233-402-1	%	<0.1	
41	Cobalt(II) carbonate**	513-79-1	208-169-4	%	<0.1	
42	Cobalt(II) diacetate**	71-48-7	200-755-8	%	<0.1	
43	2-Methoxyethanol	109-86-4	203-713-7	%	<0.1	
44	2-Ethoxyethanol	110-80-5	203-804-1	%	<0.1	
45	Chromium trioxide**	1333-82-0	215-607-8	%	<0.1	
46	Acids generated from chromium trioxide and their oligomers	Chromic acid**	7738-94-5	231-801-5	%	<0.1
		Dichromic acid**	13530-68-2	236-881-5	%	<0.1
		Oligomers of chromic acid and dichromic acid**	--	--	%	<0.1



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Code	Test Item	CAS No.	EC No.	Unit	A
47	2-ethoxyethyl acetate	111-15-9	203-839-2	%	<0.1
48	Strontium chromate**	7789-6-2	232-142-6	%	<0.1
49	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	271-084-6	%	<0.1
50	Hydrazine	7803-57-8 302-01-2	206-114-9	%	<0.1
51	1-methyl-2-pyrrolidone	872-50-4	212-828-1	%	<0.1
52	1,2,3-trichloropropane	96-18-4	202-486-1	%	<0.1
53	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters,C7-rich	71888-89-6	276-158-1	%	<0.1

## Specimen Description:

A: FRAGILE PAPER

## Note:

- mg/kg =ppm= $10^{-6}$

- 0.1%=1000ppm

- N.D.= not detected(<MDL)

- MDL=Method Detection Limit

-\*\*The substance is calculated by using the test results of element (Ex. Tin, Arsenic, Lead, Cobalt or Cr (VI), Molybdenum, Aluminum, Silicon, Zirconium, Boron respectively). If the sample contains total Cobalt, it needs further test the Chlorine content to make sure whether it includes Cobalt dichloride or not.

-The SVHC concentration is based on the assessment of the testing results, the characteristic of the material and the characteristic of the SVHC.

- Photo is included

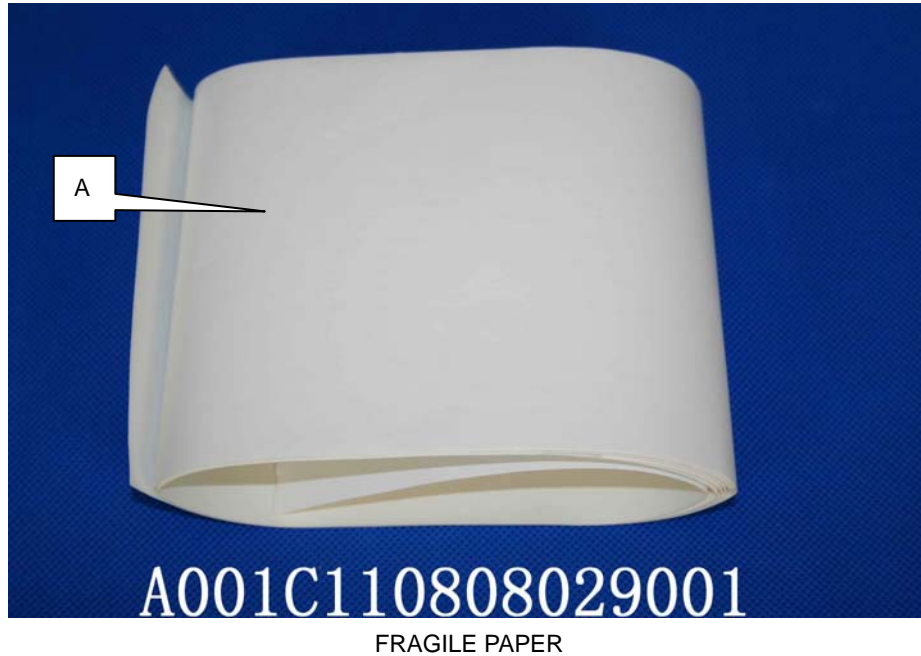
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## Photograph of Sample



\*\*\*End of Report\*\*\*