

Test Report No.: NB2013110512A Page 1 of 8

Client: ZHEJIANG WANGYANG HIGH MOLECULE MATERIAL CO.,LTD.

No.332 , Jinxiu Road, Wenzhou, Zhejiang 325000 P.R. China

Buyer's name: N/A

Manufacturer's name: N/A

Test item(s):

Identification/ Model No(s): N/A

Sample Receiving date: 2013-11-20

Delivery condition: Apparent good, Samples tested as received

Test specification: Test result:

Overall results according to tests performed

Customer Requirement:

 Screening of substances of very high concern (SVHC) subject to authorisation, according to (EU) no. 143/2011, (EU) no. 125/2012 and (EU) no. 348/2013 (Annex XIV of EC no. 1907/2006) and candidate list by European Chemical Agency (ECHA)

Please refer to page 02

Other Information:

Test period: 2013-11-20 - 2013-11-26

Abbreviations: ok / P = passed fail / F = failed

n.a. / N = not applicable

For and on behalf of

TÜV Rheinland / CCIC (Ningbo) Co., Ltd.

2013-11-26 Zoey Zhou Project Coordinator

Date Name/Position

Test result is drawn according to the kind and extent of tests performed.

This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

TÜV Rheinland / CCIC (Ningbo)Co., Ltd. · 3F,Building C13,R&D Park,No.32 Lane 299 Guanghua Road, National Hi-Tech Zone,Ningbo 315048, P.R.China

Tel.: +86 574 8767 1566 · Fax: +86 574 8767 2566 · Mail: <u>service-gc@tuv.com</u> · Web: www.chn.tuv.com



Test Report No.: NB2013110512A Page 2 of 8

Material list

Item:

Material No.	Material	Color	Location
M001	Plastic ,TPE	White	Refer to photo

Test results

1. Screening of SVHCs subject to authorisation, according to (EU) no. 143/2011, (EU) no. 125/2012 and (EU) no. 348/2013 (Annex XIV of EC no. 1907/2006) and SVHCs in Candidate List by ECHA

Test Method:

- 1) A representative test portion is prepared by cryogenic milling.
- 2) Test portion is digested with acid and assisted with microwave, the elements are analysed by ICP-OES.
- 3) Test portion is extracted by organic solvent, semi-quantitative analysis by GC-MS / UV-Vis
- 4) Test portion is extracted by organic solvent, the extraction solution is analyzed by Headspace-GC/MS / LC-DAD-MS / LC-MS/MS.

Test No.:	T001
Material No.:	M001
Result (%)	n.d.

Abbreviation

. :

n.d. = Not Detected (< Reporting Limit)

RL = Reporting Limit
% = Percentage



Page 3 of 8

Remark:

(*1) The reporting limit for each individual SVHC subject to authorisation according to (EU) no. 143/2011, (EU) no. 125/2012 and (EU) no. 348/2013 (Annex XIV of EC no. 1907/2006):

	Substances	CAS No.	Reporting Limit
1	4,4'- Diaminodiphenylmethane (MDA)	101-77-9	0.01%
2	Benzylbutyl phthalate (BBP)	85-68-7	0.01%
3	Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	0.01%
4	Dibutyl phthalate (DBP)	84-74-2	0.01%
5	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	25637-99-4/3194-55-6	0.01%
6	5-Tert-butyl-2,4,6-trinitro-m-xylene (Musk Xylene, MX)	81-15-2	0.01%
7	2,4-Dinitrotoluene (2,4-DNT)	121-14-2	0.01%
8	Diisobutyl phthalate (DIBP)	84-69-5	0.01%
9	Tris(2-chloroethyl)phosphate	115-96-8	0.01%
10	Diarsenic pentoxide(*3)	1303-28-2	0.01%
11	Diarsenic trioxide(*3)	1327-53-3	0.01%
12	Lead chromate(*3)(*4)	7758-97-6	0.01%
13	Lead chromate molybdate sulphate red (C.I. Pigment Red 104) (*3)(*4)	12656-85-8	0.01%
14	Lead sulfochromate yellow (C.I.Pigment Yellow 34) (*3)	1344-37-2	0.01%
15	Trichloroethylene	79-01-6	0.01%
16	Chromium trioxide(*4)	1333-82-0	0.01%
17	Acids generated from chromium trioxide and their oligomers: Chromic acid Dichromic acid Oligomers of chromic acid and dichromic acid(*4)	7738-94-5 13530-68-2	0.01%
18	Sodium dichromate (*4)	7789-12-0/10588-01-9	0.01%
19	Potassium dichromate(*4)	7778-50-9	0.01%
20	Ammonium dichromate(*4)	7789-09-5	0.01%
21	Potassium chromate(*4)	7789-00-6	0.01%
22	Sodium chromate(*4)	7775-11-3	0.01%

(*2) The reporting limit for each individual SVHC in Candidate List by ECHA:

	Substances	CAS No.	Reporting Limit
23	Anthracene	120-12-7	0.01%
24	Bis(tributyltin)oxide (TBTO) (*5)	56-35-9	0.01%
25	Triethyl arsenate(*3)	15606-95-8	0.01%
26	Lead hydrogen arsenate(*3)	7784-40-9	0.01%
27	Cobalt(II) dichloride(*3)	7646-79-9	0.01%
28	Acrylamide	79-06-1	0.01%
29	Anthracene oil(*7)	90640-80-5	
30	Anthracene oil,anthracene paste,distn.lights(*7)	91995-17-4	0.010/ /*0\
31	Anthracene oil, anthracene paste, anthracene fraction (*7)	91995-15-2	0.01%(*8)
32	Anthracene oil, anthracene-low(*7)	90640-82-7	



Page 4 of 8

	Substances	CAS No.	Reporting Limit
33	Anthracene oil, anthracene paste (*7)	90640-81-6	
34	Coal tar pitch, high temperature (*7)	65996-93-2	
35	Boric acid(*3) (*6)	10043-35-3/11113-50-1	0.01%
36	Disodium tetraborate, anhydrous(*3) (*6)	1330-43-4/12179-04-3/ 1303-96-4	0.01%
37	Tetraboron disodium heptaoxide, hydrate(*3) (*6)	12267-73-1	0.01%
38	2-Methoxyethanol	109-86-4	0.01%
39	2-Ethoxyethanol	110-80-5	0.01%
40	Cobalt(II) sulphate(*3)	10124-43-3	0.01%
41	Cobalt(II) dinitrate(*3)	10141-05-6	0.01%
42	Cobalt(II) carbonate(*3)	513-79-1	0.01%
43	Cobalt(II) diacetate(*3)	71-48-7	0.01%
44	Alkanes C10-C13, chloro (Short chain chlorinated paraffins) (SCCP)	85535-84-8	0.01%
45	2-Ethoxyethyl acetate	111-15-9	0.01%
46	Strontium chromate (*4)	7789-06-2	0.01%
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	0.01%
48	Hydrazine	7803-57-8	0.01%
49	1-Methyl-2-pyrrolidone	302-01-2 872-50-4	0.01%
50	1,2,3-Trichloropropane	96-18-4	0.01%
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters C7-rich (DIHP)	71888-89-6	0.01%
52	Dichromium tris(chromate) (*4)	24613-89-6	0.01%
53	Potassium hydroxyoctaoxodizincatedi-chromate (*4)	11103-86-9	0.01%
54	Pentazinc chromate octahydroxide (*4)	49663-84-5	0.01%
55	Aluminosilicate Refractory Ceramic Fibres (RCF) (*9)	-	0.01%
56	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) (*9)	-	0.01%
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA) (*11)	25214-70-4	0.01%
58	Bis(2-methoxyethyl) phthalate	117-82-8	0.01%
59	2-Methoxyaniline; o-Anisidine	90-04-0	0.01%
60	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	0.01%
61	1,2-Dichloroethane	107-06-2	0.01%
62	Bis(2-methoxyethyl) ether	111-96-6	0.01%
63	Arsenic acid (*3)	7778-39-4	0.01%
64	Calcium arsenate (*3)	7778-44-1	0.01%
65	Trilead diarsenate (*3)	3687-31-8	0.01%
66	N,N-dimethylacetamide (DMAC)	127-19-5	0.01%
67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	0.01%
68	Phenolphthalein	77-09-8	0.01%
69	Lead dipicrate (*3)	6477-64-1	0.01%
70	Lead diazide, Lead azide (*3)	13424-46-9	0.01%
71	Lead styphnate (*3)	15245-44-0	0.01%
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	0.01%



Page 5 of 8

	Substances	CAS No.	Reporting Limit
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	0.01%
74	Diboron trioxide	1303-86-2	0.01%
75	Formamide	75-12-7	0.01%
76	Lead(II) bis(methanesulfonate) (*3)	17570-76-2	0.01%
77	1,3,5-tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	
78	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6- (1H,3H,5H)-trione (β-TGIC)	59653-74-6	0.01%
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone), MK	90-94-8	0.01%
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base), RMK	101-61-1	0.01%
81	[4-[[4-anilino-1-naphthyl][4- (dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) (*10)	2580-56-5	
82	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) (*10)	548-62-9	0.01%
83	4,4'-bis(dimethylamino)-4"-(methylamino)trityl alcohol (*10)	561-41-1	
84	α,α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) (*10)	6786-83-0	
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	0.01%
86	Pentacosafluorotridecanoic acid	72629-94-8	0.01%
87	Tricosafluorododecanoic acid	307-55-1	0.01%
88	Henicosafluoroundecanoic acid	2058-94-8	0.01%
89	Heptacosafluorotetradecanoic acid	376-06-7	0.01%
	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated (OPEO)		
90	[covering well-defined substances and UVCB substances, polymers and homologues]	-	0.01%
91	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (*12)	123-77-3	0.05%
92	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]	-	0.01%
93	Hexahydro-2-benzofuran-1,3-dione (HHPA) cis-cyclohexane-1,2-dicarboxylic anhydride trans-cyclohexane-1,2-dicarboxylic anhydride	85-42-7 13149-00-3 14166-21-3	0.01%
94	Hexahydromethylphathalic anhydride (MHHPA) Hexahydro-4-methylphathalic anhydride Hexahydro-1-methylphathalic anhydride Hexahydro-3-methylphathalic anhydride	25550-51-0 19438-60-9 48122-14-1 57110-29-9	0.01%
95	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	
96	Diisopentylphthalate	605-50-5	0.01%
97	N-pentyl-isopentylphthalate	776297-69-9	
98	Methoxyacetic acid (MAA)	625-45-6	0.01%
99	N,N-dimethylformamide	68-12-2	0.01%
100	1,2-Diethoxyethane	629-14-1	0.01%
101	Diethyl sulphate	64-67-5	0.01%
102	Dimethyl sulphate	77-78-1	0.01%
103	N-methylacetamide	79-16-3	0.01%



Page 6 of 8

	Substances	CAS No.	Reporting Limit
104	1-bromopropane (n-propyl bromide)	106-94-5	0.01%
105	Furan	110-00-9	0.01%
106	Methyloxirane (Propylene oxide)	75-56-9	0.01%
107	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	0.01%
108	Dibutyltin dichloride (DBTC) (*5)	683-18-1	0.01%
109	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	0.01%
110	4,4'-methylenedi-o-toluidine	838-88-0	0.01%
111	4,4'-oxydianiline and its salts	101-80-4	0.01%
112	4-Aminoazobenzene	60-09-3	0.01%
113	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	0.01%
114	6-methoxy-m-toluidine (p-cresidine)	120-71-8	0.01%
115	Biphenyl-4-ylamine	92-67-1	0.01%
116	o-aminoazotoluene	97-56-3	0.01%
117	o-Toluidine	95-53-4	0.01%
118	Acetic acid, lead salt, basic (*3)	51404-69-4	0.01%
119	Trilead bis(carbonate)dihydroxide (*3)	1319-46-6	0.01%
120	Lead oxide sulfate (*3)	12036-76-9	0.01%
121	[Phthalato(2-)]dioxotrilead (*3)	69011-06-9	0.01%
122	Dioxobis(stearato)trilead (*3)	12578-12-0	0.01%
123	Fatty acids, C16-18, lead salts (*3)	91031-62-8	0.01%
124	Lead bis(tetrafluoroborate) (*3)	13814-96-5	0.01%
125	Lead cyanamidate (*3)	20837-86-9	0.01%
126	Lead dinitrate (*3)	10099-74-8	0.01%
127	Lead monoxide (Lead oxide) (*3)	1317-36-8	0.01%
128	Orange lead (Lead tetroxide) (*3)	1314-41-6	0.01%
129	Lead titanium trioxide (*3)	12060-00-3	0.01%
130	Lead Titanium Zirconium Oxide (*3)	12626-81-2	0.01%
131	Pyrochlore, antimony lead yellow (*3)	8012-00-8	0.01%
132	Pentalead tetraoxide sulphate (*3)	12065-90-6	0.01%
133	Silicic acid, barium salt (1:1), lead-doped (*3)	68784-75-8	0.01%
134	Silicic acid, lead salt (*3)	11120-22-2	0.01%
135	Sulfurous acid, lead salt, dibasic (*3)	62229-08-7	0.01%
136	Tetraethyllead (*3)	78-00-2	0.01%
137	Tetralead trioxide sulphate (*3)	12202-17-4	0.01%
138	Trilead dioxide phosphonate (*3)	12141-20-7	0.01%
139	Dipentyl phthalate (DPP)	131-18-0	0.01%
140	Ammonium pentadecafluorooctanoate (APFO) (*13)	3825-26-1	0.01%
141	Pentadecafluorooctanoic acid (PFOA)	335-67-1	0.01%
142	Cadmium	7440-43-9	0.01%
143	Cadmium oxide (*3)	1306-19-0	0.01%



Test Report No.: N	IB2013110512A
--------------------	---------------

Page 7 of 8

	Substances	CAS No.	Reporting Limit
	4-Nonylphenol, branched and linear, ethoxylated		
144	[substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	-	0.01%

Remarks:

- (*3) The substance is tested in terms of its respective elements (As, Pb, Co, B, Cd)
- (*4) The substance is tested in terms of Cr (VI)
- (*5) The substance is tested and calculated in terms of Tributyl tin.
- (*6) The substance is confirmed and tested in terms of Boric acid
- (*7) The substances are UVCB (substance of unknown or variable composition, complex reaction products or biological materials), which are identified by its main constituents.
- (*8) Individual concentrations to the constituent of UVCB with an amount of < 0.01% were not considered by the calculation of the sum.
- (*9) The test result is based on microscopic and chemical evaluation.
- (*10) The substance is quantified in terms of Michler's Ketone and Michler's Base by LC-MS, as Michler's Ketone or Michler's Base was found exceeds 0.01%
- (*11) The oligomer content is determined by Py-GC/MS.
- (*12) The content of diazene-1,2-dicarboxamide is analyzed in term of its breakdown product
- (*13) The substance is tested in terms of pentadecafluorooctanoate
- (*14) The tested material(s) was screened only for selected SVHC substance(s). Selection of tests refers to the material type and application and the possibility of contamination during production & material specific contamination of the product.
- (*15) The other SVHC substances which are not mentioned in test result were either not subject to testing according to remark *14 or not detected.



Page 8 of 8

Sample Photo:



---END---