

Test Report

Report No.: GNB190227143-02R1EN

Date: Mar. 08, 2019

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The following information was/were submitted and identified by/on behalf of the client:

Applicant : JF Polymers(Suzhou) Co.,Ltd.
Address : Haicheng Industrial Park,Bldg 7,Changshu Economic and Technological Zone,Changshu,Jiangsu Province ,China
Sample Name : PolyLite™ASA
Sample Model : Filament
Sample Receive Date : Feb. 27, 2019
Sample Testing Period : Feb. 27, 2019 - Mar. 01, 2019
Test Result Summary:

As requested by the applicant, for details refer to attached page(s).

TEST ITEM(S)	TEST REQUESTED	CONCLUSION(S)
Polycyclic Aromatic Hydrocarbons (PAHs)	Selected test(s) as requested by client	See Result(s)

ORIGINAL

Authorized signature:

Lab Manager: Gavin Zhou



Mar. 08, 2019

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Test Result(s):

Test Sample Description:

Material No.	Material Description
<u>01</u>	Beige-white plastic string

Polycyclic Aromatic Hydrocarbons (PAHs)

Test Method: AfPS GS 2014: 01 PAK

<u>Item No.</u>	<u>Test Item</u>	<u>CAS No.</u>	<u>Unit</u>	<u>MDL</u>	<u>Result(s)</u>
					<u>01</u>
1	Benzo(a)Pyrene	50-32-8	mg/kg	0.2	N.D.
2	Benzo(e)Pyrene	192-97-2	mg/kg	0.2	N.D.
3	Benzo(a)Anthracene	56-55-3	mg/kg	0.2	N.D.
4	Benzo(b)Fluoranthene	205-99-2	mg/kg	0.2	N.D.
5	Benzo(j)Fluoranthene	205-82-3	mg/kg	0.2	N.D.
6	Benzo(k)Fluoranthene	207-08-9	mg/kg	0.2	N.D.
7	Chrysene	218-01-9	mg/kg	0.2	N.D.
8	Dibenzo(a,h)Anthracene	53-70-3	mg/kg	0.2	N.D.
9	Benzo(g,h,i)Perylene	191-24-2	mg/kg	0.2	N.D.
10	Indeno(1,2,3-cd)Pyrene	193-39-5	mg/kg	0.2	N.D.
11	Acenaphthylene	208-96-8	mg/kg	0.2	N.D.
12	Acenaphthene	83-32-9	mg/kg	0.2	N.D.
13	Anthracene	120-12-7	mg/kg	0.2	N.D.
14	Fluorene	86-73-7	mg/kg	0.2	N.D.
15	Fluoranthene	206-44-0	mg/kg	0.2	1.1
16	Phenanthrene	85-01-8	mg/kg	0.2	N.D.
17	Pyrene	129-00-0	mg/kg	0.2	N.D.
18	Naphthalene	91-20-3	mg/kg	0.2	0.3
Sum of Acenaphthylene, Acenaphthene, Anthracene, Fluorene, Fluoranthene, Phenanthrene, Pyrene		--	mg/kg	--	1.1
Sum of 18 PAHs		--	mg/kg	--	1.4

- Note:**
- 1000mg/kg = 0.1%;
 - MDL = Method Detection Limit;
 - N.D. = Not Detected (<MDL).

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Remark: This report replaces the report No. GNB190227143-02EN, Date: Mar. 01, 2019.

Sample Photo(s):



GIG authenticate the photo(s) on original report only

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

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Test Report

Report No.: GNB190227143-01R1EN

Date: Mar. 08, 2019

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The following information was/were submitted and identified by/on behalf of the client:

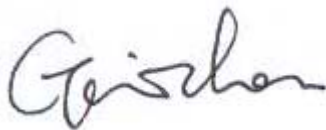
Applicant : JF Polymers(Suzhou) Co.,Ltd.
Address : Haicheng Industrial Park,Bldg 7,Changshu Economic and Technological Zone,Changshu,Jiangsu Province ,China
Sample Name : PolyLite™ASA
Sample Model : Filament
Sample Receive Date : Feb. 27, 2019
Sample Testing Period : Feb. 27, 2019 - Mar. 07, 2019
Test Result Summary:

As requested by the applicant, for details refer to attached page(s).

TEST ITEM(S)	TEST REQUESTED	RESULT(S)
One hundred and Ninety-seven(197) substances content in SVHC	ECHA's SVHC candidate on and before Jan. 15, 2019 of European Commission Regulation 1907/2006/EC concerning the REACH	LESS THAN 0.1% (w/w)

ORIGINAL

Authorized signature:



Lab Manager: Gavin Zhou



Mar. 08, 2019

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Test Result(s):
Test Sample Description:

Material No.	Material Description
<u>01</u>	Beige-white plastic string

SVHC content

Reference Method:

- 1) US EPA 3540C: 1996 & US EPA 8270D: 2007
- 2) US EPA 3550C: 2007 & US EPA 8270D: 2007
- 3) US EPA 3050B: 1996 & US EPA 6010C: 2007
- 4) US EPA 3052: 1996 & US EPA 6010C: 2007
- 5) US EPA 3060A: 1996 & US EPA 7196A: 1992
- 6) US EPA 3550C: 2007 & US EPA 8321B: 2007
- 7) US EPA 8260B: 1996
- 8) ISO 3613: 2010
- 9) EN 14582: 2016
- 10) EN ISO 14362-1: 2017

<u>NO.</u>	<u>Substance Name</u>	<u>CAS No.</u>	<u>EC No.</u>	<u>RL(%)</u>	<u>Result(s)</u>
					<u>01</u>
1	Anthracene	120-12-7	204-371-1	0.020	N.D.
2	4,4'- Diaminodiphenylmethane (MDA)	101-77-9	202-974-4	0.020	N.D.
3	Dibutyl phthalate (DBP)	84-74-2	201-557-4	0.020	N.D.
4	Cobalt dichloride*	7646-79-9	231-589-4	0.005	N.D.
5	Diarsenic pentaoxide*	1303-28-2	215-116-9	0.005	N.D.
6	Diarsenic trioxide*	1327-53-3	215-481-4	0.005	N.D.
7	Sodium dichromate*	7789-12-0, 10588-01-9	234-190-3	0.005	N.D.
8	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4	0.020	N.D.
9	Hexabromocyclododecane (HBCDD)	25637-99-4, 3194-55-6	247-148-4, 221-695-9	0.020	N.D.
10	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	287-476-5	0.020	N.D.
11	Bis(tributyltin)oxide(TBTO)	56-35-9	200-268-0	0.020	N.D.
12	Lead hydrogen arsenate*	7784-40-9	232-064-2	0.005	N.D.
13	Triethyl arsenate*	15606-95-8	427-700-2	0.005	N.D.

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NO.	Substance Name	CAS No.	EC No.	RL(%)	Result(s)
					01
14	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	0.020	N.D.
15	Anthracene oil	90640-80-5	292-602-7	0.020	N.D.
16	Anthracene oil, anthracene paste, distr. Lights	91995-17-4	295-278-5	0.020	N.D.
17	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	0.020	N.D.
18	Anthracene oil, anthracene-low	90640-82-7	292-604-8	0.020	N.D.
19	Anthracene oil, anthracene paste	90640-81-6	292-603-2	0.020	N.D.
20	Pitch, coal tar, high temp.	65996-93-2	266-028-2	0.020	N.D.
21	Diisobutyl phthalate (DIBP)	84-69-5	201-553-2	0.020	N.D.
22	2,4-Dinitrotoluene	121-14-2	204-450-0	0.020	N.D.
23	Tris(2-chloroethyl) phosphate	115-96-8	204-118-5	0.020	N.D.
24	Lead chromate*	7758-97-6	231-846-0	0.005	N.D.
25	Lead chromate molybdate sulphate red (C.I. Pigment Red 104) *	12656-85-8	235-759-9	0.005	N.D.
26	Lead sulphochromate yellow (C.I. Pigment Yellow 34) *	1344-37-2	215-693-7	0.005	N.D.
27	Acrymide	79-06-1	201-173-7	0.020	N.D.
28	Trichloroethylene	79-01-6	201-167-4	0.020	N.D.
29	Boric acid*	10043-35-3, 1113-50-1	233-139-2, 234-343-4	0.005	N.D.
30	Disodium tetraborate, anhydrous*	1303-96-4, 1330-43-4, 12179-04-3	215-540-4	0.005	N.D.
31	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	235-541-3	0.005	N.D.
32	Sodium chromate*	7775-11-3	231-889-5	0.005	N.D.
33	Ammonium dichromate*	7789-09-5	232-143-1	0.005	N.D.
34	Potassium chromate*	7789-00-6	232-140-5	0.005	N.D.
35	Potassium dichromate*	7778-50-9	231-906-6	0.005	N.D.
36	Cobalt(II) sulphate*	10124-43-3	233-334-2	0.005	N.D.
37	Cobalt(II) dinitrate*	10141-05-6	233-402-1	0.005	N.D.
38	Cobalt(II) carbonate*	513-79-1	208-169-4	0.005	N.D.
39	Cobalt(II) diacetate*	71-48-7	200-755-8	0.005	N.D.
40	2-Methoxyethanol	109-86-4	203-713-7	0.020	N.D.
41	2-Ethoxyethanol	110-80-5	203-804-1	0.020	N.D.
42	Chromium trioxide*	1333-82-0	215-607-8	0.005	N.D.
43	Chromic acid, dichromic acid, Oligomers of chromic acid, and dichromic acid*	7738-94-5, 13530-68-2	231-801-5, 236-881-5	0.005	N.D.

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					01
44	Strontium chromate*	7789-06-2	232-142-6	0.005	N.D.
45	2-ethoxyethyl acetate	111-15-9	203-839-2	0.020	N.D.
46	Hydrazine	302-01-2, 7803-57-8	206-114-9	0.020	N.D.
47	1-Methyl-2-pyrrolidone	872-50-4	212-828-1	0.020	N.D.
48	1,2,3-trichloropropane	96-18-4	202-486-1	0.020	N.D.
49	1,2-Benzenedicarboxylic acid, di-C7 -11-branched and linear alkyl esters	68515-42-4	271-084-6	0.020	N.D.
50	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	276-158-1	0.020	N.D.
51	Dichromium tris(chromate) *	24613-89-6	246-356-2	0.005	N.D.
52	Potassium hydroxy- octaoxodizincatedichromate*	11103-86-9	234-329-8	0.005	N.D.
53	Pentazinc chromate octahydroxide*	49663-84-5	256-418-0	0.005	N.D.
54	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) *	Index number: 650-017-00-8		0.005	N.D.
55	Aluminosilicate Refractory Ceramic Fibres (RCF) *	Index number: 650-017-00-8		0.005	N.D.
56	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	500-036-1	0.020	N.D.
57	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	0.020	N.D.
58	2-Methoxyaniline /o-Anisidine	90-04-0	201-963-1	0.020	N.D.
59	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	205-426-2	0.020	N.D.
60	1,2-Dichloroethane	107-06-2	203-458-1	0.020	N.D.
61	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	0.020	N.D.
62	Arsenic acid*	7778-39-4	231-901-9	0.005	N.D.
63	Calcium arsenate*	7778-44-1	231-904-5	0.005	N.D.
64	Trilead diarsenate*	3687-31-8	222-979-5	0.005	N.D.
65	N,N-dimethylacetamide	127-19-5	204-826-4	0.020	N.D.
66	2,2'-dichloro-4,4'-methylenedianiline	101-14-4	202-918-9	0.020	N.D.
67	Phenolphthalein	77-09-8	201-004-7	0.020	N.D.
68	Lead diazide, Lead azide*	13424-46-9	236-542-1	0.005	N.D.
69	Lead styphnate*	15245-44-0	239-290-0	0.005	N.D.
70	Lead dipicrate*	6477-64-1	229-335-2	0.005	N.D.
71	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	203-977-3	0.020	N.D.
72	Lead(II) bis(methanesulfonate)	17570-76-2	401-750-5	0.005	N.D.
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether(EGDME)	110-71-4	203-794-9	0.020	N.D.

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					01
74	Diboron trioxide*	1303-86-2	215-125-8	0.005	N.D.
75	Formamide	75-12-7	200-842-0	0.020	N.D.
76	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6-trione (TGIC)	2451-62-9	219-514-3	0.020	N.D.
77	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	423-400-0	0.020	N.D.
78	4,4'-bis(dimethylamino) benzophenone	90-94-8	202-027-5	0.020	N.D.
79	N,N,N',N'-tetramethyl-4,4'-methylenedianiline	101-61-1	202-959-2	0.020	N.D.
80	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5	219-943-6	0.020	N.D.
81	[[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	208-953-6	0.020	N.D.
82	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	209-218-2	0.020	N.D.
83	α,α-Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0	229-851-8	0.020	N.D.
84	Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	0.005	N.D.
85	6-methoxy-m-toluidine(p-cresidine)	120-71-8	204-419-1	0.020	N.D.
86	Henicosfluoroundecanoic acid	2058-94-8	218-165-4	0.020	N.D.
87	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	247-094-1, 243-072-0, 256-356-4, 260-566-1	0.020	N.D.

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NO.	Substance Name	CAS No.	EC No.	RL(%)	Result(s)
					01
88	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	201-604-9, 236-086-3, 238-009-9	0.020	N.D.
89	Dibutyltin dichloride(DBTC)	683-18-1	211-670-0	0.020	N.D.
90	Lead bis(tetrafluoroborate) *	13814-96-5	237-486-0	0.005	N.D.
91	Lead dinitrate*	10099-74-8	233-245-9	0.005	N.D.
92	Silicic acid, lead salt*	11120-22-2	234-363-3	0.005	N.D.
93	4-Aminoazobenzene	60-09-3	200-453-6	0.020	N.D.
94	Lead titanium zirconium oxide*	12626-81-2	235-727-4	0.005	N.D.
95	Lead monoxide (lead oxide) *	1317-36-8	215-267-0	0.005	N.D.
96	o-Toluidine	95-53-4	202-429-0	0.020	N.D.
97	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	0.020	N.D.
98	Silicic acid (H ₂ Si ₂ O ₅), 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	272-271-5	0.005	N.D.
99	Trilead bis(carbonate) dihydroxide*	1319-46-6	215-290-6	0.005	N.D.
100	Furan	110-00-9	203-727-3	0.020	N.D.
101	N,N-dimethylformamide	68-12-2	200-679-5	0.020	N.D.
102	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-	0.020	N.D.
103	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]	-	-	0.020	N.D.

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NO.	Substance Name	CAS No.	EC No.	RL(%)	Result(s)
					01
104	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	0.020	N.D.
105	Diethyl sulphate	64-67-5	200-589-6	0.020	N.D.
106	Dimethyl sulphate	77-78-1	201-058-1	0.020	N.D.
107	Lead oxide sulfate*	12036-76-9	234-853-7	0.005	N.D.
108	Lead titanium trioxide*	12060-00-3	235-038-9	0.005	N.D.
109	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	0.005	N.D.
110	[Phthalato(2-)] dioxotrilead	69011-06-9	273-688-5	0.020	N.D.
111	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	214-604-9	0.020	N.D.
112	N-methylacetamide	79-16-3	201-182-6	0.020	N.D.
113	Dinoseb (6-sec-butyl-2,4- dinitrophenol)	88-85-7	201-861-7	0.020	N.D.
114	1,2-Diethoxyethane	629-14-1	211-076-1	0.020	N.D.
115	Tetralead trioxide sulphate	12202-17-4	235-380-9	0.020	N.D.
116	N-pentyl-isopentyl phthalate	776297-69-9	-	0.020	N.D.
117	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	0.005	N.D.
118	Tetraethyllead*	78-00-2	201-075-4	0.005	N.D.
119	Pentalead tetraoxide sulphate*	12065-90-6	235-067-7	0.005	N.D.
120	Pentacosafuorotridecanoic acid	72629-94-8	276-745-2	0.020	N.D.
121	Tricosafuorododecanoic acid	307-55-1	206-203-2	0.020	N.D.
122	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4	0.020	N.D.
123	1-bromopropane (n-propyl bromide)	106-94-5	203-445-0	0.020	N.D.
124	Methoxyacetic acid	625-45-6	210-894-6	0.020	N.D.
125	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	202-453-1	0.020	N.D.
126	Methyloxirane (Propylene oxide)	75-56-9	200-879-2	0.020	N.D.
127	Trilead dioxide phosphonate*	12141-20-7	235-252-2	0.005	N.D.
128	o-aminoazotoluene	97-56-3	202-591-2	0.020	N.D.
129	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2	0.020	N.D.

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					01
130	4,4'-oxydianiline and its salts	101-80-4	202-977-0	0.020	N.D.
131	Orange lead (lead tetroxide)*	1314-41-6	215-235-6	0.005	N.D.
132	Biphenyl-4-ylamine	92-67-1	202-177-1	0.020	N.D.
133	Diisopentylphthalate	605-50-5	210-088-4	0.020	N.D.
134	Fatty acids, C16-18, lead salts	91031-62-8	292-966-7	0.020	N.D.
135	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	0.020	N.D.
136	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	0.005	N.D.
137	Lead cyanamidate*	20837-86-9	244-073-9	0.005	N.D.
138	4-Nonylphenol, branched and linear, ethoxylated [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]	-	-	0.020	N.D.
139	Cadmium	7440-43-9	231-152-8	0.005	N.D.
140	Ammonium pentadecafluorooctanoate(APFO)	3825-26-1	223-320-4	0.020	N.D.
141	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	0.020	N.D.
142	Dipentyl phthalate(DPP)	131-18-0	205-017-9	0.020	N.D.
143	Cadmium oxide*	1306-19-0	215-146-2	0.005	N.D.
144	Cadmium sulphide*	1306-23-6	215-147-8	0.005	N.D.
145	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	217-710-3	0.020	N.D.
146	Diethyl phthalate(DHP)	84-75-3	201-559-5	0.020	N.D.
147	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	202-506-9	0.020	N.D.
148	Trixylyl phosphate	25155-23-1	246-677-8	0.020	N.D.
149	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	209-358-4	0.020	N.D.

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NO.	Substance Name	CAS No.	EC No.	RL(%)	Result(s)
					01
150	Lead di(acetate)*	301-04-2	206-104-4	0.005	N.D.
151	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5	0.020	N.D.
152	Sodium perborate; perboric acid, sodium salt*	-	239-172-9, 234-390-0	0.005	N.D.
153	Sodium peroxometaborate*	7632-04-4	231-556-4	0.005	N.D.
154	Cadmium chloride*	10108-64-2	233-296-7	0.005	N.D.
155	Bis (2-ethylhexyl) phthalate(DEHP)	117-81-7	204-211-0	0.020	N.D.
156	2-benzotriazol-2-yl-4,6-di-tert-butylphenol(UV-320)	3846-71-7	223-346-6	0.020	N.D.
157	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	239-622-4	0.020	N.D.
158	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	-	0.020	N.D.
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol(UV-328)	25973-55-1	247-384-8	0.020	N.D.
160	Cadmium fluoride*	7790-79-6	232-222-0	0.005	N.D.
161	Cadmium sulphate*	10124-36-4, 31119-53-6	233-331-6	0.005	N.D.
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5, 68648-93-1	271-094-0, 272-013-1	0.020	N.D.
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof]	--	--	0.020	N.D.
164	1,3-propanesultone	1120-71-4	214-317-9	0.020	N.D.
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	0.020	N.D.
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	0.020	N.D.
167	Nitrobenzene	98-95-3	202-716-0	0.020	N.D.
168	Perfluorononan-1-ic-acid and its sodium and ammonium salts	375-95-1, 21049-39-8, 4149-60-4	206-801-3	0.020	N.D.

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NO.	Substance Name	CAS No.	EC No.	RL(%)	Result(s)
					01
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5	0.020	N.D.
170	4,4'-isopropylidenediphenol (Bisphenol A)	80-05-7	201-245-8	0.020	N.D.
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	--	--	0.020	N.D.
172	4-Heptylphenol, branched and linear	--	--	0.020	N.D.
173	p-(1,1-dimethylpropyl) phenol	80-46-6	201-280-9	0.020	N.D.
174	Perfluorohexane-1-sulphonic acid and its salts(PFHxS)	--	--	0.020	N.D.
175	Chrysene	218-01-9, 1719-03-5	205-923-4	0.020	N.D.
176	Benz[a]anthracene	56-55-3, 1718-53-2	200-280-6	0.020	N.D.
177	Cadmium nitrate*	10022-68-1, 10325-94-7	233-710-6	0.005	N.D.
178	Cadmium carbonate*	513-78-0	208-168-9	0.005	N.D.
179	Cadmium hydroxide*	21041-95-2	244-168-5	0.005	N.D.
180	Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus" TM) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	-	0.020	N.D.
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear (4-HPbl)]	-	-	0.020	N.D.
182	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (trimellitic anhydride) (TMA)	552-30-7	209-008-0	0.020	N.D.
183	Dicyclohexyl phthalate(DCHP)	84-61-7	201-545-9	0.020	N.D.
184	Benzo[ghi]perylene	191-24-2	205-883-8	0.020	N.D.
185	Decamethylcyclopentasiloxane(D5)	541-02-6	208-764-9	0.020	N.D.
186	Disodium octaborate*	12008-41-2, 12280-03-4	234-541-0	0.005	N.D.
187	Dodecamethylcyclohexasiloxane(D6)	540-97-6	208-762-8	0.020	N.D.
188	Ethylenediamine(EDA)	107-15-3	203-468-6	0.020	N.D.
189	Lead*	7439-92-1	231-100-4	0.005	N.D.
190	Octamethylcyclotetrasiloxane(D4)	556-67-2	209-136-7	0.020	N.D.
191	Terphenyl, hydrogenated	61788-32-7	262-967-7	0.020	N.D.

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NO.	Substance Name	CAS No.	EC No.	RL(%)	Result(s)
					01
192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo [2.2.1]heptan-2-one; 3-benzylidene camphor; 3-BC	15087-24-8	239-139-9	0.020	N.D.
193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1	0.020	N.D.
194	Benzo[k]fluoranthene	207-08-9	205-916-6	0.020	N.D.
195	Fluoranthene	206-44-0; 93951-69-0	205-912-4	0.020	N.D.
196	Phenanthrene	85-01-8	201-581-5	0.020	N.D.
197	Pyrene	129-00-0; 1718-52-1	204-927-3	0.020	N.D.

- Note:**
- 1000mg/kg = 0.1%;
 - RL = Report Limit;
 - N.D. = Not Detected(<RL);
 - "*" = The test result is based on the calculation of selected element(s) / marker(s) and to the worst case;
 - The detail information for the SVHC published at website of ECHA:
http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp
 - In accordance with Regulation (EC) No. 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, namely (a) the substance is present in those article in quantities totaling over one ton per producer or importer per year; and (b) the substance is present in those articles above a concentration of 0.1% weight by weight (w/w);
 - Article 33 of Regulation (EC) No. 1907/2006 requires supplier of an article containing a substance meets 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.

Remark: This report replaces the report No. GNB190227143-01EN, Date: Mar. 07, 2019.

Sample Photo(s):



GIG authenticate the photo(s) on original report only

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

ORIGINAL

Test Report

Report No.: GNB190227143-03R1EN

Date: Mar. 08, 2019

Page 1 of 3

The following information was/were submitted and identified by/on behalf of the client:

Applicant : JF Polymers(Suzhou) Co.,Ltd.
Address : Haicheng Industrial Park,Bldg 7,Changshu Economic and Technological Zone,Changshu,Jiangsu Province ,China
Sample Name : PolyLite™ASA
Sample Material : Filament
Sample Receive Date : Feb. 27, 2019
Sample Testing Period : Feb. 27, 2019 - Mar. 01, 2019

Test Result Summary:

As requested by the applicant, for details refer to attached page(s).

TEST ITEM(S)	TEST REQUESTED	CONCLUSION(S)
Pb, Cd, Hg, CrVI, PBBs, PBDEs and Phthalates(DBP, BBP, DEHP, DIBP) content	RoHS Directive 2011/65/EU and its amendment (EU) 2015/863	PASS

ORIGINAL

Authorized signature:

Lab Manager: Gavin Zhou



Mar. 08, 2019

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Test Report

Report No.: GNB190227143-03R1EN

Date: Mar. 08, 2019

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Test Result(s):

Test Sample Description:

Material No.	Material Description
<u>01</u>	Beige-white plastic string

RoHS(Pb, Cd, Hg, CrVI, PBBs, PBDEs and Phthalates(DBP, BBP, DEHP, DIBP))

Test Method: Lead(Pb), Cadmium(Cd) –IEC 62321-5: 2013
 Mercury(Hg) –IEC 62321-4: 2013
 Chromium VI(CrVI) –IEC 62321-7-2: 2017
 PBBs, PBDEs –IEC 62321-6: 2015
 DBP, BBP, DEHP, DIBP –IEC 62321-8: 2017

Test item(s)	Limit	Unit	RL	Result(s)
				<u>01</u>
Lead(Pb)	1000	mg/kg	10	N.D.
Cadmium(Cd)	100	mg/kg	10	N.D.
Mercury(Hg)	1000	mg/kg	10	N.D.
Chromium VI(CrVI)	1000	mg/kg	50	N.D.
Dibutyl phthalate(DBP)	1000	mg/kg	50	N.D.
Butyl benzyl phthalate(BBP)	1000	mg/kg	50	N.D.
Di-2-ethylhexyl phthalate(DEHP)	1000	mg/kg	50	N.D.
Di-iso-butyl phthalate(DIBP)	1000	mg/kg	50	N.D.
Monobromobiphenyls	--	mg/kg	5	N.D.
Dibromobiphenyls	--	mg/kg	5	N.D.
Tribromobiphenyls	--	mg/kg	5	N.D.
Tetrabromobiphenyls	--	mg/kg	5	N.D.
Pentabromobiphenyls	--	mg/kg	5	N.D.
Hexabromobiphenyls	--	mg/kg	5	N.D.
Heptabromobiphenyls	--	mg/kg	5	N.D.
Octabromobiphenyls	--	mg/kg	5	N.D.
Nonabromobiphenyls	--	mg/kg	5	N.D.
Decabromobiphenyl	--	mg/kg	5	N.D.
Group PBBs	1000	mg/kg	--	N.D.
Monobromodiphenyl ethers	--	mg/kg	5	N.D.
Dibromodiphenyl ethers	--	mg/kg	5	N.D.
Tribromodiphenyl ethers	--	mg/kg	5	N.D.
Tetrabromodiphenyl ethers	--	mg/kg	5	N.D.

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Test Report

Report No.: GNB190227143-03R1EN

Date: Mar. 08, 2019

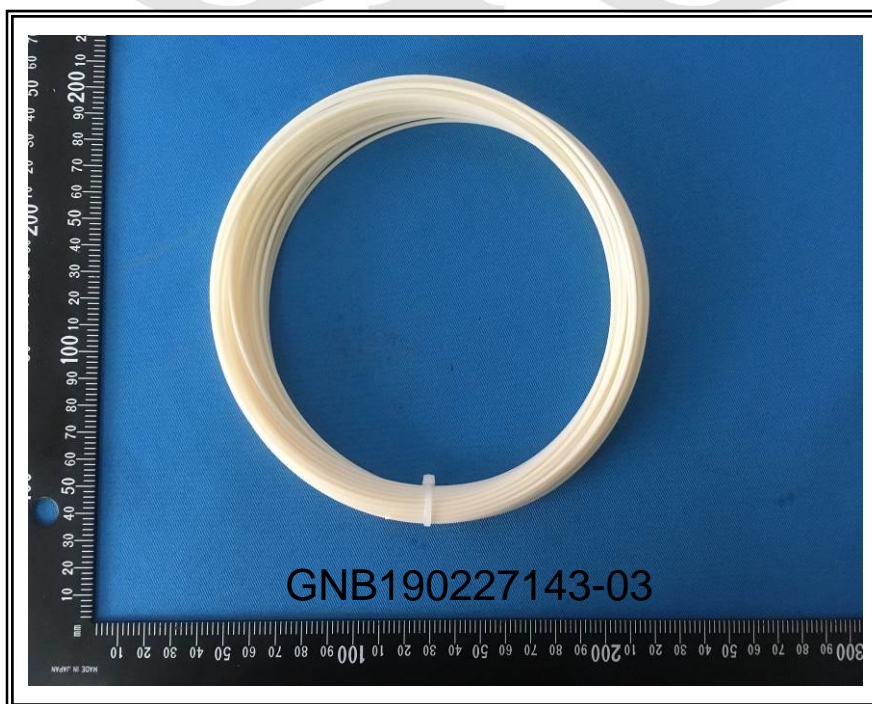
Page 3 of 3

Test item(s)	Limit	Unit	RL	Result(s)
				01
Pentabromodiphenyl ethers	--	mg/kg	5	N.D.
Hexabromodiphenyl ethers	--	mg/kg	5	N.D.
Heptabromodiphenyl ethers	--	mg/kg	5	N.D.
Octabromodiphenyl ethers	--	mg/kg	5	N.D.
Nonabromodiphenyl ethers	--	mg/kg	5	N.D.
Decabromodiphenyl ether	--	mg/kg	5	N.D.
Group PBDEs	1000	mg/kg	--	N.D.
Conclusion(s)				PASS

- Note:**
1. 1000mg/kg = 0.1%;
 2. RL = Reporting Limit;
 3. N.D. = Not detected (<RL).

Remark: This report replaces the report No. GNB190227143-03EN, Date: Mar. 01, 2019.

Sample Photo(s):



GIG authenticate the photo(s) on original report only

End of Report

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