

Test Report

No. CANML1810323101

Date: 31 May 2018

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SHENZHEN MINGLANG TEXTILE TECHNOLOGY CO.,LTD
BUILDING 2,NO 1, YONGHUA STREET,PINGHU,SHENZHEN

The following sample(s) was/were submitted and identified on behalf of the clients as : Waxed Linen Thread

SGS Job No. : SZIN1805006806PC - SZ
Client Ref. Info. : Linen
Specification : M50
Date of Sample Received : 26 May 2018
Testing Period : 26 May 2018 - 31 May 2018
Test Requested : Selected test(s) as requested by client.
Test Method : Please refer to next page(s).
Test Results : Please refer to next page(s).
Conclusion : When tested as specified, Migration of certain elements of the submitted sample(s) do not exceed the limit of the European Standard EN 71-3:2013+A2:2017.

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Luke Xu

Luke Xu
Approved Signatory



Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CAN18-103231.001	Brown thread

Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

EN 71-3:2013+A2:2017-Migration of Certain Elements (Category III: Scrapped-off toy material)

Test Method : With reference to EN 71-3:2013+A2:2017. Analysis was performed by ICP-OES.

Test Item(s)	Limit	Unit	MDL	001
Soluble Aluminum(Al)	70,000	mg/kg	50	ND
Soluble Antimony (Sb)	560	mg/kg	10	ND
Soluble Arsenic (As)	47	mg/kg	10	ND
Soluble Barium (Ba)	18,750	mg/kg	50	ND
Soluble Boron(B)	15,000	mg/kg	50	ND
Soluble Cadmium (Cd)	17	mg/kg	5	ND
Soluble Chromium (III) (Cr (III))	460	mg/kg	5	ND
Soluble Chromium (VI) (Cr (VI))	0.2	mg/kg	0.18	ND
Soluble Cobalt(Co)	130	mg/kg	10	ND
Soluble Copper(Cu)	7,700	mg/kg	50	ND
Soluble Lead (Pb)	160	mg/kg	10	ND
Soluble Manganese(Mn)	15,000	mg/kg	50	ND
Soluble Mercury (Hg)	94	mg/kg	10	ND
Soluble Nickel(Ni)	930	mg/kg	10	ND
Soluble Organic Tin	12	mg/kg	-	ND
Soluble Selenium (Se)	460	mg/kg	10	ND
Soluble Strontium(Sr)	56,000	mg/kg	50	ND
Soluble Tin(Sn)	180,000	mg/kg	4.9	ND
Soluble Zinc (Zn)	46,000	mg/kg	50	ND

Notes :



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1. Soluble Chromium (III) = Soluble Total Chromium - Soluble Chromium (VI)
2. Confirmation test of soluble chromium (III) & chromium (VI) is not required in case of soluble chromium does not exceed their requirements as specified in EN 71-3:2013+A2:2017.
3. Confirmation test of soluble organic tin is not required in case of soluble tin, after conversion, does not exceed the soluble organic tin requirement as specified in EN 71-3:2013+A2:2017.

Formaldehyde

Test Method : With reference to GB/T 2912.1-2009, analysis was performed by UV-Vis.

Test Item(s)	Unit	MDL	001
Free & Hydrolyzed Formaldehyde Content	mg/kg	20	ND

Azo Dyes

Test Method : With reference to EN 14362-1 :2012 - Analysis was conducted with GC-MS/HPLC-DAD. Determination of 4-aminoazobenzene (CAS No.:60-09-3) - EN 14362-3:2012; with the use of Gas Chromatography - Mass Spectrometry (GC-MS)

Test Item(s)	CAS NO.	Limit	Unit	MDL	001
4-Aminobiphenyl	92-67-1	30	mg/kg	5	ND
Benzidine	92-87-5	30	mg/kg	5	ND
4-chloro-o-toluidine	95-69-2	30	mg/kg	5	ND
2-naphthylamine	91-59-8	30	mg/kg	5	ND
o-aminoazotoluene	97-56-3	30	mg/kg	5	ND
5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	30	mg/kg	5	ND
4-chloroaniline	106-47-8	30	mg/kg	5	ND



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<u>Test Item(s)</u>	<u>CAS NO.</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	30	mg/kg	5	ND
4,4'-diaminodiphenylmethane	101-77-9	30	mg/kg	5	ND
3,3'-dichlorobenzidine	91-94-1	30	mg/kg	5	ND
3,3'-dimethoxybenzidine	119-90-4	30	mg/kg	5	ND
3,3'-dimethylbenzidine	119-93-7	30	mg/kg	5	ND
3,3'-Dimethyl-4,4'-diaminodiphenylmethane / 4,4'-methylenedi-o-toluidine	838-88-0	30	mg/kg	5	ND
p-cresidine	120-71-8	30	mg/kg	5	ND
4,4'-methylene-bis-(2-chloroaniline)	101-14-4	30	mg/kg	5	ND
4,4'-oxydianiline	101-80-4	30	mg/kg	5	ND
4,4'-thiodianiline	139-65-1	30	mg/kg	5	ND
o-toluidine	95-53-4	30	mg/kg	5	ND
4-methyl-m-phenylenediamine / 2,4-Toluylenediamine	95-80-7	30	mg/kg	5	ND
2,4,5-trimethylaniline	137-17-7	30	mg/kg	5	ND
4-aminoazobenzene	60-09-3	30	mg/kg	5	ND



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<u>Test Item(s)</u>	<u>CAS NO.</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
O-Anisidine	90-04-0	30	mg/kg	5	ND
2,4-Xylidine	95-68-1	30	mg/kg	5	ND
2,6-Xylidine	87-62-7	30	mg/kg	5	ND

Comment

PASS

Notes :

(1) The EN 14362-1 methods will enable further cleavage of 4-aminoazobenzene to non-forbidden amines: aniline and 1,4-phenylenediamine, therefore, the test method of EN14362-3:2012 was employed to verify the presence of 4-aminoazobenzene.

(2) Max. limit specified by entry 43 of Regulation (EC) No 552/2009 amending Annex XVII of REACH Regulation (EC) No 1907/2006 (previously restricted under Directive 2002/61/EC).

(3) Whenever 4-aminodiphenyl (CAS number 92-67-1), 2-naphylamine (CAS number 91-59-8) and 4-methoxy-m-phenylene-diamine (CAS number 615-05-4) is found, the use of banned azo colorants cannot be reliably ascertained without additional information, e.g. the chemical structure of the colorants used.

In case polyurethane materials are used, e.g. PU foams and coatings and in prints, it cannot be ruled out that certain amines, e.g. 4,4'-methylene-dianiline (MDA, CAS number 101-77-9) and 2,4-toluylen-diamine (TDA, CAS number 95-80-7) are released from the PU component and not from a banned azo colorant. In case of pigment prints care has to be taken that 4,4'-methylene-dianiline (MDA, CAS number 101-77-9) is not released from a source of banned azo colorants but from e.g. a chemical fixing agent.



Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***