LAB N° 0302 L

TEST REPORT : 23.2145

This report is composed by 20 pages, of which: 3 pages for the Summary
17 pages for the Report 23.2145a

E. MIROGLIO SRL
LOCALITÀ CARRETTA 21
PIOBESI D'ALBA CN ITALIA
ATTN: Sig. Christian Cecchelero

DATE IN: 23 January 2023
DATE OUT: 26 January 2023

Item:	101A34A, 101A616, 101A744	**Brand:**	02 - UCB BABY	**Season:**	FW/23
Vendor:	//			**Applicant:**	E. MIROGLIO SRL
Material Supplier:					
Sample Description:	filato			**Dept:**	01 - KNITWEAR
Color:		**End Use:**			
Garment Treatment:	No	**Size range:**	KIDS 1 (SIZE 0-14) -		
Fabric Code:	Fabric - > %	**Status:**		**Country Origin:**	
Labelled Fiber Content:					
Retest:	No	**Prev. Report No.:**		**Sample submitted by:**	
Testing Code:	M10 - Natural Fabrics and Yarns				
Project Code / BAP No:	//				

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.

TEST REPORT: 23.2145 **dated** 26 Jan 2023

SAMPLE DESCRIPTION (no. 723930)

filato

PART LIST OF COMPONENTS

1 filato
2 Dark blue yarn
3 Light brown yarn
4 Grey yarn

TEST PERFORMED

Other Dyes **Benetton Technical Safety Specification Ver. October 2020** **part 2** Dark blue yarn **part 3** Light brown yarn **part 4** Grey yarn	**Complies**
Chlorinated Phenols (Textile) **Benetton Technical Safety Specification Ver. October 2020** **part 2** Dark blue yarn **part 3** Light brown yarn **part 4** Grey yarn	**Complies**
Aromatic Amines (Textile) **Benetton Technical Safety Specification Ver. October 2020** Mix: **part 2** Dark blue yarn + **part 3** Light brown yarn + **part 4** Grey yarn	**Complies**
Alkylphenols (Textile) **Benetton Technical Safety Specification Ver. October 2020** **part 2** Dark blue yarn **part 3** Light brown yarn **part 4** Grey yarn	**Complies**
Orthophenylphenol (OPP) and Triclosan (Textile) **Benetton Technical Safety Specification Ver. October 2020** **part 2** Dark blue yarn **part 3** Light brown yarn **part 4** Grey yarn	**Complies**
Carcinogenic Colourants **Benetton Technical Safety Specification Ver. October 2020** **part 2** Dark blue yarn **part 3** Light brown yarn **part 4** Grey yarn	**Complies**
Allergenic Colourants **Benetton Technical Safety Specification Ver. October 2020**	**Complies**

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.
Soggetto a direzione e coordinamento di UL Inc.

TEST REPORT: 23.2145 **dated** 26 Jan 2023

part 2 Dark blue yarn **part 3** Light brown yarn **part 4** Grey yarn	
Formaldehyde (Textile) **Benetton Technical Safety Specification Ver. October 2020** Mix: **part 2** Dark blue yarn + **part 3** Light brown yarn + **part 4** Grey yarn	**Complies**
Heavy Metals Extractable (Textile) **Benetton Technical Safety Specification Ver. October 2020** **part 4** Grey yarn Mix: **part 2** Dark blue yarn + **part 3** Light brown yarn	**Complies**
Phenol **Benetton Technical Safety Specification Ver. October 2020** **part 2** Dark blue yarn **part 3** Light brown yarn **part 4** Grey yarn	**Complies**
Alkylphenols Ethoxylates (Textile) **Benetton Technical Safety Specification Ver. October 2020** **part 2** Dark blue yarn **part 3** Light brown yarn **part 4** Grey yarn	**Complies**

Chemical Laboratory Supervisor
Luciano Buraschi

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.
Soggetto a direzione e coordinamento di UL Inc.

TEST REPORT: 23.2145a **dated 26 January 2023**

This section is an integral part of the TEST REPORT 23.2145

SAMPLE DESCRIPTION (no. 723930)	DATE	APPLICANT
filato	**Test beginning:** 24 Jan 2023	E. MIROGLIO SRL
	Issue date: 26 Jan 2023	

* Phenols Content

Method: CH-085 reference to 64 LFGB 82.02.8 : 2001 **Instrument:** Gas Chromatograph with Mass Detector (MS)

Identification Parts	PCP	TeCP	TriCP	DCP	MCP
Dark blue yarn	< 0,05	< 0,05	< 0,05	< 0,05	< 0,05
Light brown yarn	< 0,05	< 0,05	< 0,05	< 0,05	< 0,05
Grey yarn	< 0,05	< 0,05	< 0,05	< 0,05	< 0,05

Legend: The results expressed are in mg/kg.
The symbol < followed by a number indicates that the concentration of the element is less than the limit of quantification (LOQ)

The substances determined are:
PCP: Pentachlorophenol TeCP: Tetrachlorophenol TriCP: Trichlorophenol DCP: Dichlorophenol
MCP: Monochlophenol

Requirements: PCP, TeCP, TriCP: Not Detected (0,05 mg/kg)
DCP, MCP: 0,5 m/kg

Reference: Chlorinated Phenols (Textile)
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirements.

(*) Test not accredited by ACCREDIA.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.

TEST REPORT: 23.2145a dated 26 January 2023

Determination of Formaldehyde release on textile products	
Method:	JIS L-1041:2011
Instrument:	Spectrophotometer (Wavelenght 412nm)

Identification Parts	Formaldehyde content
Mix: **part 2** Dark blue yarn + **part 3** Light brown yarn + **part 4** Grey yarn	< 5

Legend: The results expressed are in mg/kg.
The symbol < followed by a number indicates that the concentration of the substance is less than the limit of quantification (LOQ)

Requirements: 16 mg/kg

Reference: Formaldehyde (Textile)
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirements.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.

Extractable Heavy Metals	
Method:	EN 16711-2:2015
Instrument:	Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)

Identification Parts	Compound	Results
Mix: **part 2** Dark blue yarn + **part 3** Light brown yarn	Sb	< 5,0
	As	< 0,05
	Pb	< 0,1
	Cd	< 0,02
	Cr	< 0,1
	Ni	< 0,2
	Co	< 0,1
	Cu	< 5,0
	Hg	< 0,01
	Se	< 5,0
	Ba	< 10
Grey yarn	Sb	< 5,0
	As	< 0,05
	Pb	< 0,1
	Cd	< 0,02
	Cr	0,11
	Ni	< 0,2
	Co	< 0,1
	Cu	< 5,0
	Hg	< 0,01
	Se	< 5,0
	Ba	< 10

Legend: The results expressed are in mg/kg (ppm)
The symbol < followed by a number indicates that the concentration of the element is less than the limit of quantification (LOQ)
Sb=Antimony, As=Arsenic, Pb=Lead, Cd=Cadmium, Cr=Chromium, Ni=Nickel, Co=Cobalt, Cu=Copper, Hg=Mercury, Se=Selenium, Ba=Barium.

Requirements: Sb: 30 mg/kg; As: 0,2 mg/kg; Pb: 0,2 mg/kg; Cd: 0,1 mg/kg; Cr: 1,0 mg/kg; Ni: 1,0 mg/kg; Co: 1,0 mg/kg; Cu: 25 mg/kg; Hg: 0,02 mg/kg; Ba: 1000 mg/kg; Se 100 mg/kg

Reference: Heavy Metals Extractable (Textile)
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirements.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.
Soggetto a direzione e coordinamento di UL Inc.

Textile - Determination content of Alkylphenols	
Method:	ISO 21084:2019
Instrument:	H.P.L.C.with DAD and MSD detectors

Identification Parts

Dark blue yarn	NP	< 3,0
	OP	< 3,0
	PP	< 3,0
	HP	< 3,0
	BP	< 100,0
Light brown yarn	NP	< 3,0
	OP	< 3,0
	PP	< 3,0
	HP	< 3,0
	BP	< 100,0
Grey yarn	NP	< 3,0
	OP	< 3,0
	PP	< 3,0
	HP	< 3,0
	BP	< 100,0

Legend: The results expressed are in mg/kg.
n.d. means not detected.
The symbol < followed by a number indicates that the concentration of the substance is less than the limit of quantification (LOQ)
The substances determined are:
NP : Nonylphenol - OP : Octylphenol
PP : Pentylphenol - HP : Heptylphenol - - BP: 4-Tert-butylphenol

Requirements: NP, OP: Not Detected (3 mg/kg)
PP, HP: Sum 10 mg/kg
BP: 1000 mg/kg

Reference: Alkylphenols (Textile)
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirements.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.
Soggetto a direzione e coordinamento di UL Inc.

Dyestuffs classified as carcinogenic	
Method:	DIN 54231:2005
Instrument:	Liquid chromatograph with mass and DAD detector

Identification Parts		Result
Dark blue yarn	Acid Orange 24	< 10
	Acid Red 26	< 10
	Acid Violet 49	< 10
	Basic Blue 26	< 10
	Basic Green 4	< 10
	Basic Red 9	< 10
	Basic Violet 1	< 10
	Basic Violet 3	< 10
	Basic Violet 14	< 10
	Direct Black 38	< 10
	Direct Black 91	< 10
	Direct Blue 6	< 10
	Direct Blue 76	< 10
	Direct Blue 218	< 10
	Direct Brown 95	< 10
	Direct Red 28	< 10
	Direct Yellow 1	< 10
	Disperse Blue 1	< 10
	Disperse Orange 11	< 10
	Disperse Yellow 3	< 10
	Pigment Red 104	< 10
	Pigment Yellow 34	< 10
	Solvent Blue 4	< 10
	Solvent Yellow 1	< 10
	Solvent Yellow 2	< 10
	Solvent Yellow 3	< 10
	Acid Red 114	< 10
	Basic Yellow 2	< 10
	Direct Blue 15	< 10
	Solvent Yellow 8	< 10

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.

Dyestuffs classified as carcinogenic	
Method:	DIN 54231:2005
Instrument:	Liquid chromatograph with mass and DAD detector

Identification Parts		Result
Light brown yarn	Acid Orange 24	< 10
	Acid Red 26	< 10
	Acid Violet 49	< 10
	Basic Blue 26	< 10
	Basic Green 4	< 10
	Basic Red 9	< 10
	Basic Violet 1	< 10
	Basic Violet 3	< 10
	Basic Violet 14	< 10
	Direct Black 38	< 10
	Direct Black 91	< 10
	Direct Blue 6	< 10
	Direct Blue 76	< 10
	Direct Blue 218	< 10
	Direct Brown 95	< 10
	Direct Red 28	< 10
	Direct Yellow 1	< 10
	Disperse Blue 1	< 10
	Disperse Orange 11	< 10
	Disperse Yellow 3	< 10
	Pigment Red 104	< 10
	Pigment Yellow 34	< 10
	Solvent Blue 4	< 10
	Solvent Yellow 1	< 10
	Solvent Yellow 2	< 10
	Solvent Yellow 3	< 10
	Acid Red 114	< 10
	Basic Yellow 2	< 10
	Direct Blue 15	< 10
	Solvent Yellow 8	< 10

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.

Dyestuffs classified as carcinogenic	
Method:	DIN 54231:2005
Instrument:	Liquid chromatograph with mass and DAD detector

Identification Parts		Result
Grey yarn	Acid Orange 24	< 10
	Acid Red 26	< 10
	Acid Violet 49	< 10
	Basic Blue 26	< 10
	Basic Green 4	< 10
	Basic Red 9	< 10
	Basic Violet 1	< 10
	Basic Violet 3	< 10
	Basic Violet 14	< 10
	Direct Black 38	< 10
	Direct Black 91	< 10
	Direct Blue 6	< 10
	Direct Blue 76	< 10
	Direct Blue 218	< 10
	Direct Brown 95	< 10
	Direct Red 28	< 10
	Direct Yellow 1	< 10
	Disperse Blue 1	< 10
	Disperse Orange 11	< 10
	Disperse Yellow 3	< 10
	Pigment Red 104	< 10
	Pigment Yellow 34	< 10
	Solvent Blue 4	< 10
	Solvent Yellow 1	< 10
	Solvent Yellow 2	< 10
	Solvent Yellow 3	< 10
	Acid Red 114	< 10
	Basic Yellow 2	< 10
	Direct Blue 15	< 10
	Solvent Yellow 8	< 10

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.

Dyestuffs classified as carcinogenic	
Method:	DIN 54231:2005
Instrument:	Liquid chromatograph with mass and DAD detector

Identification Parts	Result

Legend: The results expressed are in mg/kg
The symbol < followed by a number indicates that the concentration of the element is less than the limit of quantification (LOQ)

Requirements: Not Detected (10 mg/kg)

Reference: Carcinogenic Colourants
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirements.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.
Soggetto a direzione e coordinamento di UL Inc.

Dyestuffs classified as allergenic	
Method:	DIN 54231:2005
Instrument:	Liquid chromatograph with mass and DAD detector

Identification Parts		Result
Dark blue yarn	Disperse Blue 1	< 10
	Disperse Blue 3	< 10
	Disperse Blue 7	< 10
	Disperse Blue 26	< 10
	Disperse Blue 35	< 10
	Disperse Blue 102	< 10
	Disperse Blue 106	< 10
	Disperse Blue 124	< 10
	Disperse Brown 1	< 10
	Disperse Orange 1	< 10
	Disperse Orange 3	< 10
	Disperse Orange 37/76/59	< 10
	Disperse Red 1	< 10
	Disperse Red 11	< 10
	Disperse Red 17	< 10
	Disperse Yellow 1	< 10
	Disperse Yellow 3	< 10
	Disperse Yellow 9	< 10
	Disperse Yellow 39	< 10
	Disperse Yellow 49	< 10
	Solvent Yellow 14	< 10

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.

Dyestuffs classified as allergenic	
Method:	DIN 54231:2005
Instrument:	Liquid chromatograph with mass and DAD detector

Identification Parts		Result
Light brown yarn	Disperse Blue 1	< 10
	Disperse Blue 3	< 10
	Disperse Blue 7	< 10
	Disperse Blue 26	< 10
	Disperse Blue 35	< 10
	Disperse Blue 102	< 10
	Disperse Blue 106	< 10
	Disperse Blue 124	< 10
	Disperse Brown 1	< 10
	Disperse Orange 1	< 10
	Disperse Orange 3	< 10
	Disperse Orange 37/76/59	< 10
	Disperse Red 1	< 10
	Disperse Red 11	< 10
	Disperse Red 17	< 10
	Disperse Yellow 1	< 10
	Disperse Yellow 3	< 10
	Disperse Yellow 9	< 10
	Disperse Yellow 39	< 10
	Disperse Yellow 49	< 10
	Solvent Yellow 14	< 10

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.

Dyestuffs classified as allergenic	
Method:	DIN 54231:2005
Instrument:	Liquid chromatograph with mass and DAD detector

Identification Parts		Result
Grey yarn	Disperse Blue 1	< 10
	Disperse Blue 3	< 10
	Disperse Blue 7	< 10
	Disperse Blue 26	< 10
	Disperse Blue 35	< 10
	Disperse Blue 102	< 10
	Disperse Blue 106	< 10
	Disperse Blue 124	< 10
	Disperse Brown 1	< 10
	Disperse Orange 1	< 10
	Disperse Orange 3	< 10
	Disperse Orange 37/76/59	< 10
	Disperse Red 1	< 10
	Disperse Red 11	< 10
	Disperse Red 17	< 10
	Disperse Yellow 1	< 10
	Disperse Yellow 3	< 10
	Disperse Yellow 9	< 10
	Disperse Yellow 39	< 10
	Disperse Yellow 49	< 10
	Solvent Yellow 14	< 10

Legend: The results expressed are in mg/kg.
The symbol < followed by a number indicates that the concentration of the element is less than the limit of quantification (LOQ)

Requirements: Not Detected (10 mg/kg)

Reference: Allergenic Colourants
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirements.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.
Soggetto a direzione e coordinamento di UL Inc.

Determination of other colourants	
Method:	DIN 54231:2005
Instrument:	H.P.L.C. with DAD and MASS detector.

Identification Parts	Compound	Result
Dark blue yarn	Disperse Orange 149	< 10
	Disperse Yellow 23	< 10
	Navy Blue (Blue Colorants)	< 10
Light brown yarn	Disperse Orange 149	< 10
	Disperse Yellow 23	< 10
	Navy Blue (Blue Colorants)	< 10
Grey yarn	Disperse Orange 149	< 10
	Disperse Yellow 23	< 10
	Navy Blue (Blue Colorants)	< 10

Legend: The results expressed are in mg/kg.
The symbol < followed by a number indicates that the concentration of the substance is less than the limit of quantification (LOQ)

Requirements: Not Detected (10mg/kg)

Reference: Other Dyes
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirements.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.
Soggetto a direzione e coordinamento di UL Inc.

Determination of certain Azo-dyes without extraction	
Method:	EN ISO 14362-1:2017
Instrument:	Liquid chromatograph with Mass selective detector (HPLC -MS); Gas chromatograph with Mas selective detector (GC -MS).

Identification Parts	List		
Mix: **part 2** Dark blue yarn + **part 3** Light brown yarn + **part 4** Grey yarn	4-Aminobiphenyl	92-67-1	< 5
	Benzidine	92-87-5	< 5
	4-Chloro-o-Toluidine	95-69-2	< 5
	2-Naphthylamine	91-59-8	< 5
	o-Aminoazotoluene	97-56-3	< 5
	5-Nitro-o-Toluidine	99-55-8	< 5
	4-Chloroaniline	106-47-8	< 5
	2,4-Diaminoanisole	615-05-4	< 5
	4,4'-Diaminodiphenylmethane	101-77-9	< 5
	3,3'-Dichlorobenzidine	91-94-1	< 5
	3,3'-Dimethoxybenzidine	119-90-4	< 5
	3,3'-Dimethylbenzidine	119-93-7	< 5
	4,4'-Methylenedi-o-toluidine	838-88-0	< 5
	p-Cresidine	120-71-8	< 5
	4,4'-Methylene-bis-(2-Chloro-aniline)	101-14-4	< 5
	4,4'-Oxydianiline	101-80-4	< 5
	4,4'-Thiodianiline	139-65-1	< 5
	o-Toluidine	95-53-4	< 5
	2,4-Toluendiamine	95-80-7	< 5
	2,4,5-Trimethylaniline	137-17-7	< 5
	o-Anisidine	90-04-0	< 5
	4-aminoazobenzene	60-09-3	< 5
	2,4-Xylidine	95-68-1	< 5
	2,6-Xylidine	87-62-7	< 5
	4-Chloro-o-toluidinium chloride	3165-93-3	< 5
	2-Naphtylammoniumacetate	553-00-4	< 5
	2,4-Diaminoanisole suplhate	39156-41-7	< 5
	2,4,5-Trimethylaniline hydrochloride	21436-97-5	< 5
	Aniline	62-53-3	< 5
	4-AAB Suspicion		Not detected

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.

TEST REPORT: 23.2145a **dated 26 January 2023**

Determination of certain Azo-dyes without extraction	
Method:	EN ISO 14362-1:2017
Instrument:	Liquid chromatograph with Mass selective detector (HPLC -MS); Gas chromatograph with Mas selective detector (GC -MS).

Identification Parts List

Legend:

The results expressed are in mg/kg.
The symbol < followed by a number indicates that the concentration for each substance detected is less than the limit of quantification (LOQ)
Banned azo colourants per German and European Law (Regulation (EC) No. 1907/2006 on REACH Annex XVII item no. 43 and appendix 8 as amended by commission regulation (EC) no. 552/2009) are such colourants that may form one of the following amines by splitting up one or more azo groups.
The amines o-aminoazotoluene and 2-amino-4-nitrotoluene are detected by means of their degradation products o-toluidine or 2,4-toluylenediamine.
Where 4-Aminobiphenyl, 2-Naphthylamine or 4-Methoxy-m-phenylendiamine (2,4-Diaminoanisol) is found to be present in levels exceeding the Requirement hereafter pointed out, the use of banned azo colourants cannot be reliably ascertained without additional information, e.g. the chemical structure of the colourants used
Interpretations of the results
Where indicated, the extended uncertainty, associated with the test result and preceded by the "±" symbol, is calculated with a coverage factor K=2 that correspond to a probability level of 95% or with a confidence interval corresponding to a level of confidence of approximately 95% .
According to EN 14362-1:2012 in case of presence of aniline, we proceed to search the 4-Aminoazobenzene according to the method EN 14362-3:2012.
4-AAB: Azo colorants that are able to form 4-aminoazobenzene, generate under the condition of this method aniline (CAS - number 62-53-3) and 1,4-phenylenediamine (CAS - number 106-50 -3). The presence of 4-aminoazobenzene should be tested by EN 14362-3, in case 4-AAB suspicion is detected.

Requirements: 20 mg/kg

Reference: Aromatic Amines (Textile)
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirement.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.

Textile - Determination content of Alkylphenols Ethoxylates	
Method:	EN ISO 18254-1:2016
Instrument:	Liquid chromatograph with Mass and DAD detector

Identification Parts

Dark blue yarn	NPEO (1-20) OPEO (1-20)	< 3,0 < 3,0
Light brown yarn	NPEO (1-20) OPEO (1-20)	< 3,0 < 3,0
Grey yarn	NPEO (1-20) OPEO (1-20)	< 3,0 < 3,0

Legend: The results expressed are in mg/kg.
The symbol < followed by a number indicates that the concentration of the element is less than the limit of quantification (LOQ)

The substances determined are:
NPEO: Nonylphenol Ethoxylate - OPEO : Octylphenol Ethoxylate

Requirements: NPEO, OPEO: 50 mg/kg

Reference: Alkylphenols Ethoxylates (Textile)
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirements.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.
Soggetto a direzione e coordinamento di UL Inc.

* **Determination of Preserving Agent**	
Method:	EN 17134:2019
Instrument:	Gaschromatograph with mass detector (GC MS) - Liquid Chromatograph with mass detector (LC MS)

Identification Parts

Dark blue yarn	Orthophenylphenol (OPP)	< 1
	Triclosan	< 1
Light brown yarn	Orthophenylphenol (OPP)	< 1
	Triclosan	< 1
Grey yarn	Orthophenylphenol (OPP)	< 1
	Triclosan	< 1

Legend: The results expressed are in mg/kg.
The symbol < followed by a number indicates that the concentration of the substance is less than the limit of quantification (LOQ)

Requirements: OPP: 10 mg/kg
Triclosan: Not Detected (1 mg/kg)

Reference: Orthophenylphenol (OPP) and Triclosan (Textile)
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirements.

(*) Test not accredited by ACCREDIA.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.
Soggetto a direzione e coordinamento di UL Inc.

* **Determination of Phenol**	
Method:	CH031v1
Instrument:	Gaschromatograph with mass detector (GC MS) - Liquid Chromatograph with mass detector (LC MS)

Identification Parts	Compound		Result
Dark blue yarn	Phenol	108-95-2	< 1
Light brown yarn	Phenol	108-95-2	< 1
Grey yarn	Phenol	108-95-2	< 1

Legend: The results expressed are in mg/kg.
The symbol < followed by a number indicates that the concentration of the element is less than the limit of quantification (LOQ)

Requirements: 20 mg/kg

Reference: Phenol
Benetton Technical Safety Specification Ver. October 2020

Conclusion: The results found **COMPLY** with the above requirements.

(*) Test not accredited by ACCREDIA.

IISG srl Via Europa, 28 - 22060 CABIATE (CO) Italy
Tel. +39.031 8125000 | Fax +39.031 756187 | ITALY.infoCRS@ul.com | www.UL.com/CRS
C.F. 10343230156 | P.IVA IT02326220130 | R.E.A. CO 250914 | Cap. Soc. 500.000,00 i.v.
Soggetto a direzione e coordinamento di UL Inc.