PRODUCT RESTRICTED SUBSTANCES LIST & REQUIREMENTS

VERSION APRIL 2024

Miroglio Fashion s.r.l.
Compliance office

Email : sustainability@miroglio.com

Web : www.mirogliogroup.com

MIROGLIO FASHION s.r.l.
Via Santa Barbara, 11
12051 ALBA (CN) - ITALY
www.mirogliofashion.com

MIROGLIO FASHION s.r.l. (ITALY) - "PRODUCTS RESTRICTED SUBSTANCES LIST "PRSL"	
CHEMICALS - SAFETY REQUIREMENTS	

The present document is mandatory for all Miroglio Fashion products including packaging materials.

Articles produced for "MIROGLIO FASHION s.r.l." must meet all European legal restrictions regarding forbidden chemical substances, in accordance with EC Regulation no. 1907/2006 (REACH) and all its amendments in force at the time of delivery of the items (http://echa.europa.eu/it/home); moreover must meet the additional "MIROGLIO FASHION s.r.l." requirements.

TEXTILES

PARAMETER	Unit	LIMIT VALUE (Adult)	TEST METHOD
Acid boric	mg/kg	≤ 1000	Screening Test: acid digestion ICP-MS Specific Test: aqueous extraction - TEA derivatization - GC-MS
Asbestos (Appendix 11)	mg/kg	Not detected	Microscopic examination
Biocides (Appendix 6)	mg/kg	≤ 1 (sum) Penthachlorophenol (PCP) Tetrachlorophenols (TeCP) excluded	Chromatographic Test Methods refer to US EPA 8081
Bisphenols (Appendix 23)	mg/kg	≤ 1 (polyester/elastane materials only)	Solvent extraction, LC-MS / GC-MS analysis
Chlorobenzenes and Chlorotoluenes (Appendix 5)	mg/kg	≤ 1 (sum)	EN 17137
Chloroparaffines: Short chained (SCCPs : C_{10}-C_{13})	mg/kg	≤ 50 (sum)	ISO 22818
Chloroparaffines: Medium chained (MCCPs : C_{14}-C_{17})	mg/kg	≤ 1000 (sum)	ISO 22818

PARAMETER		Unit	LIMIT VALUE (Adult)	TEST METHOD
Dimethyl fumarate (DMFu)		mg/kg	≤ 0,1	ISO 16186 - GB/T 26713
Dyes:	Allergenic Disperse (Appendix 3)	mg/kg	Detox: since 2014/09 Not detectable(≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 20 ppm	DIN 54231 ISO 16373-2
	Azo: aryl amines can be split off under reductive conditions (Appendix 1)	mg/kg	Detox: since 2014/09 Not detectable (≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 20 ppm	UNI EN ISO 14362-1,3 GB/T 17592.1 GB/T 23344
	Carcinogenic (Appendix 2)	mg/kg	Detox: since 2014/09 Not detectable(≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 20 ppm	DIN 54231 - Analysis TLC and LC-MS ISO 16373-3
	Navy Blue (Appendix 25)	mg/kg	Detox: since 2014/09 Not detectable (≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 20 ppm	Based on DIN 54231
Flame Retardants (Appendix 12)		mg/kg	Not detectable (≤ 5 mg/kg)	GB/T 24279; ISO 17881-1-2 Extraction with organic solvent - Analysis by GC-MS; GC-ECD; LC-MS; KS 62321
Formaldehyde (free and extractable)		mg/kg	≤ 75	EN ISO 14184-1; GB 18401: GB/T 2912.1 KS K 0611
Heavy Metals (total amount)	Cadmium	mg/kg	≤ 50	EN 16711-1
	Lead	mg/kg	≤ 90	EN 16711-1
Mercury compounds (Appendix 24)		mg/kg	≤ 1 (mercury, Hg)	Screening Test method: ISO 17072-2 EN 16711-1

PARAMETER	Unit	LIMIT VALUE (Adult)	TEST METHOD
Alkylphenolethoxylates (APEOs) (Appendix 7)	mg/kg	Detox: since 2015/07 ≤ 1 mg/kg (sum) Recycled Content Maximum contamination limit (sum)= 250 ppm	ISO 18254 -1
Alkylphenols (APs) (Appendix 8)	mg/kg	Detox: since 2015/07 ≤ 1 mg/kg (sum) Recycled Content Maximum contamination limit (sum)= 250 ppm	Extraction with organic solvent - Analysis by GC-MS ISO 21084
Organotin compounds (Appendix 10)	mg/kg	≤ 1 (TBT, TBTO, TPhT) ≤ 2 (others) ≤ 2 (recycled materials only)	ISO/TS 16179 KS K 0737 NIEA T504.30B3
Ortho-phenilphenol (OPP)	mg/kg	≤ 100	Extraction with organic solvent - GC-MS
Pentachlorophenol (PCP) Tetrachlorophenols (TeCP) Trichlorophenols (TCP) (Appendix 4)	mg/kg	≤ 0,5 (sum)	UNI 11057 US EPA 8081 A
PFAS: all PFAS as total organic fluorine (TOF)	mg/kg	≤ 100	EN 17813
PFAS: Perfluorooctanesulfonic acids and its derivates (PFOS) (Appendix 9)	µg/m2	≤ 1	CEN/TS 15968
PFAS: Perfluorooctanoic Acid (PFOA) and its salts (Appendix 9)	µg/kg	≤ 25	Extraction with organic solvent - Analysis by LC-MSMS referred to CEN/TS 15968
PFAS: PFOA-related substances (Appendix 9)	µg/kg	≤ 1000 (sum)	Extraction with organic solvent - Analysis by LC-MSMS referred to CEN/TS 15968
PFAS: long chain perfluoralkyl acids (C9-C14) (Appendix 9)	µg/kg	≤ 25	Extraction with organic solvent - Analysis by LC-MSMS referred to CEN/TS 15968

MIROGLIO FASHION s.r.l.
Via Santa Barbara, 11
12051 ALBA (CN) - ITALY
www.mirogliofashion.com

PARAMETER	Unit	LIMIT VALUE (Adult)	TEST METHOD
PFAS: long chain perfluoralkyl related substances (C9-C14) (Appendix 9)	µg/kg	≤ 260 (sum)	Extraction with organic solvent - Analysis by LC-MSMS referred to CEN/TS 15968
PFAS: short chain perfluoralkyl substances (Appendix 9)	mg/kg	≤ 1000	Extraction with organic solvent - Analysis by LC-MSMS referred to CEN/TS 15968
PFAS: Perfluorohexansulfonic acid (PFHxS) and its salts (Appendix 9)	µg/kg	≤ 25	CEN/TS 15968 EN ISO 23702-1 or EN 17681-1 & EN 17681-2
PFAS: PFHxS-related substances (Appendix 9)	µg/kg	≤ 1000 (sum)	CEN/TS 15968 EN ISO 23702-1 or EN 17681-1 & EN 17681-2
pH value of aqueous extract	pH	4,0÷8,5	EN ISO 3071 GB 18401: GB/T 7573
Polychlorobiphenyls (PCB) (Appendix 18)	mg/kg	≤ 0,1	Ref. EPA 3540C + EPA 8082A
Polychloronaphthalenes (PCN) (Appendix 19)	mg/kg	≤ 1	Ref. EPA 3550C + EPA 8270E
Polycyclic Aromatic Hydrocarbons (IPA - PAH) (Appendix 14)	mg/kg	< 1 (synthetic fibers only)	AfPS GS 2019:01 ISO/TS 16190
Quinoline (CAS 91-22-5)	mg/kg	< 50	GC-MS extraction MeOH or THF and HPLC-MS
Siloxsanes (Appendix 22)	mg/kg	≤ 1000	Solvent extraction, GC-MS analysis

PARAMETER **Heavy Metals (Extractables)**	**Unit**	**LIMIT VALUE (Adult) (mg/kg)** (Detox: since 2020)	**TEST METHOD**	**Detection Limit**
Antimony	mg/kg	≤ 30	Extractable Content: extraction with acid perspiration according to: EN 16711-2 Cr (VI): GB/T 17593-3; ISO 17075	3,00
Arsenic		≤ 1		0,02
Cadmium		≤ 0,1		0,02
Chromium (total)		≤ 2		0,01
Chromium VI		≤ 0,5		0,10
Cobalt		≤ 4		3,00
Copper		≤ 50		0,10
Lead		≤ 1		2,50
Mercury		≤ 0,02 (natural fibers only)		0,10
Nickel		≤ 4		0,01

Coated Fabric – Additional Requirements for PVC

PARAMETER (refers to the coating material)	**Unit**	**LIMIT VALUE (Adult)**	**TEST METHOD**
Vinyl Chloride (monomer)	mg/kg	≤ 5	GB/T 4615 – ISO 6401
Lead – (Chloridric acid extractable)	mg/kg	≤ 90	GB 21550
Cadmium – (Chloridric acid extractable)	mg/kg	≤ 75	GB 21550
Volatile Substances	mg/kg	≤ 20	GB 21550

Coated Fabric – Additional Requirements

PARAMETER (refers to the coating material)		Unit	LIMIT VALUE (Adult)	TEST METHOD
Bisphenols (Appendix 23)		mg/kg	≤ 1	Solvent extraction, LC-MS / GC-MS analysis
Heavy Metals (total amount)	Cadmium	mg/kg	≤ 75	EN 16711-1 CPSC-CH-E1003-09.1
	Lead	mg/kg	≤ 90	Microwave digestion; ICP-MS/OES - CPSC-CH-E-1003-09.1 - GB/T 30157
	Mercury	mg/kg	≤ 10	Microwave digestion ICP-MS/OES
Phthalates	BBP, DBP, DEHP, DIBP, DPP, DMEP, DIHP, DHNUP; DHP-DnHP	mg/kg	Detox: since 2014/09 ≤ 10 mg/kg (sum)	EN 14389 CPSC-CH-C1001-09.4 GB/T 20388 ISO 8124-6
	DIDP, DNOP, DINP	mg/kg	Detox: since 2014/09 ≤ 10 mg/kg (sum)	
	All other esters of o-phthalic acid	mg/kg	N.A.	
Solvents (Appendix 15)		mg/kg	According to dedicated appendix	GB 19340:2003 "Extraction HS - SPME or Purge &Trap and Analysis by GC-MS" ISO/TS 16189
UV-Stabilizers (Appendix 21)		mg/kg	≤ 1000	ISO 24040 Solvent extraction, LC-MS analysis
Lead		mg/kg	≤ 90	CPSC-CH-E-1003-09.1
Cadmium		mg/kg	≤ 75	EN 16711-1

MIROGLIO FASHION s.r.l.
Via Santa Barbara, 11
12051 ALBA (CN) - ITALY
www.mirogliofashion.com

LEATHER

PARAMETER		Unit	LIMIT VALUE (Adult)	TEST METHOD
Boric Acid		mg/kg	≤ 1000	Screening Test: acid digestion - ICP-MS Specific Test: aqueous extraction - TEA derivatization - GC-MS
Asbestos (Appendix 11)		mg/kg	Not detected	Microscopic examination
Biocides (Appendix 6)		mg/kg	≤ 0,5 (sum) (≤ 36 months) ≤ 1 (sum) Pentachlorophenol (PCP) and Tetrachlorophenols (TeCP) excluded	Chromatographic Test Methods refer to US EPA 8081
Bisphenols	BPA	mg/kg	≤ 200	Solvent extraction, LC-MS / GC-MS analysis
	BPF	mg/kg	≤ 1000	
	BPS	mg/kg	≤ 1000	
Chloroparaffines: Short chained (SCCPs : C10-C13)		mg/kg	≤ 50 (sum)	ISO 18219-1
Chloroparaffines: Medium chained (MCCPs : C14-C17)		mg/kg	≤ 1000 (sum)	ISO 18219-2
Chromium VI		mg/kg	< 3	EN ISO 17075-2
Dimethyl fumarate (DMFu)		mg/kg	≤ 0,1	ISO/TS 16186
Dioxins and furans (Appendix 13)		mg/kg	According to dedicated appendix	Extraction with organic solvent - Analysis by GC-MS
Dyes	Allergenic Disperse (Appendix 3)	mg/kg	Not detectable (≤ 1 mg/kg)	DIN 54231
	Azo: aryl amines can be split off under reductive conditions (Appendix 1)	mg/kg	Detox: since 2014/09 Not detectable (≤ 1 mg/kg)	EN ISO 17234-1,2 GB 20400: GB/T 19942 JIS L 1940
	Carcinogenic (Appendix 2)	mg/kg	Not detectable (≤ 1 mg/kg)	DIN 54231 - Analysis TLC and LC-MS ISO 16373-2
	Navy Blue (Appendix 25)	mg/kg	Not detectable (≤ 1 mg/kg)	Based on DIN 54231
Flame Retardants (Appendix 12)		mg/kg	Not detectable (≤ 5 mg/kg)	Extraction with organic solvent - Analysis by: GC-MS; GC-ECD; LC-MS - GB/T 24279

PARAMETER		Unit	LIMIT VALUE (Adult)	TEST METHOD
Formaldehyde (free and extractable)		mg/kg	≤ 75	EN ISO 17226-1 GB 20400: GB/T 19941
Glutaraldehyde		mg/kg	≤ 1000	Extraction with organic solvent + Analysis by GC-MS
Heavy Metals (extractable)	Cadmium	mg/kg	≤ 0,1	EN ISO 17072-1
	Lead	mg/kg	≤ 0,8	EN ISO 17072-1
	Mercury	mg/kg	≤ 0,02	EN ISO 17072-1
Heavy Metals (total amount)	Cadmium	mg/kg	≤ 75	EN ISO 17072-2
	Lead	mg/kg	≤ 90	EN ISO 17072-2
Mercury compounds (Appendix 24)		mg/kg	≤ 1 (mercury, Hg)	Screening Test method: ISO 17072-2
Alkylphenolethoxylates (APEOs) (Appendix 7)		mg/kg	Detox: since 2015/07 ≤ 1 mg/kg (sum)	Extraction with organic solvent - Analysis by LC-MS ISO 18218-1
Alkylphenols (APs) (Appendix 8)		mg/kg	Detox: since 2015/07 ≤ 1 mg/kg (sum)	Extraction with organic solvent - Analysis by GC-MS refer to ISO 21084
Organotin compounds (Appendix 10)		mg/kg	≤ 1 (TBT, TBTO, TPhT)	ISO/TS 16179
Ortho-phenylphenol (OPP)		mg/kg	≤ 5000	ISO 13365
Pentachlorophenol (PCP) Tetrachlorophenols (TeCP) Trichlorophenols (TCP) (Appendix 4)		mg/kg	≤ 0,5 (sum)	EN ISO 17070
PFAS: all PFAS as total organic fluorine (TOF)		mg/kg	≤ 100	EN 17813
PFAS: Perfluorooctanesulfonic acids and its derivates (PFOS) (Appendix 9)		µg/m2	≤ 1	ISO 23702-1
PFAS: Perfluorooctanoic Acid (PFOA) and its salts (Appendix 9)		µg/kg	≤ 25	ISO 23702-1
PFAS: PFOA-related substances (Appendix 9)		µg/kg	≤ 1000 (sum)	ISO 23702-1

PARAMETER		Unit	LIMIT VALUE (Adult)	TEST METHOD
PFAS: long chain perfluoralkyl acids (C9-C14) (Appendix 9)		µg/kg	≤ 25	ISO 23702-1
PFAS: long chain perfluoralkyl related substances (C9-C14) (Appendix 9)		µg/kg	≤ 260 (sum)	ISO 23702-1
PFAS: short chain perfluoralkyl substances (Appendix 9)		mg/kg	≤ 1000	Refer to ISO 23702-1
PFAS: Perfluorohexansulfonic acid (PFHxS) and its salts (Appendix 9)		µg/kg	≤ 25	CEN/TS 15968 EN ISO 23702-1 or EN 17681-1 & EN 17681-2
PFAS: PFHxS-related substances (Appendix 9)		µg/kg	≤ 1000 (sum)	CEN/TS 15968 EN ISO 23702-1 or EN 17681-1 & EN 17681-2
pH value of aqueous extract		pH	3,5 ÷ 8,5	EN ISO 4045
Phthalates	BBP, DBP, DEHP, DIBP, DPP, DMEP, DIHP, DHNUP, DHP-DnHP	mg/kg	Detox: since 2014/09 ≤ 10 mg/kg (sum)	CPSC-CH-C1001-09.4 Ref. ISO 16181
	DIDP, DNOP, DINP	mg/kg	Detox: since 2014/09 ≤ 10 mg/kg (sum)	CPSC-CH-C1001-09.4 Ref. ISO 16181
	All other esters of o-phthalic acid	mg/kg	N.A.	CPSC-CH-C1001-09.4 Ref. ISO 16181
Polychlorobiphenyls (PCB) (Appendix 18)		mg/kg	≤ 0,1	Ref. EPA 3540C + EPA 8082A
Polychloronaphthalenes (PCN) (Appendix 19)		mg/kg	≤ 1	Ref. EPA 3550C + EPA 8270E
Siloxanes (Appendix 22)		mg/kg	≤ 1000	Solvent extraction, GC-MS analysis
Solvents (Appendix 15)		mg/kg	According to dedicated appendix	GB 19340:2003 "Extraction HS - SPME or Purge &Trap and Analysis by GC-MS" ISO/TS 16189
UV-Stabilizers (Appendix 21)		mg/kg	≤ 1000	ISO/DIS 24040 Solvent extraction, LC-MS analysis

Miroglio Fashion

MIROGLIO FASHION s.r.l.
Via Santa Barbara, 11
12051 ALBA (CN) - ITALY
www.mirogliofashion.com

PLASTIC ACCESSORIES

PARAMETER		Unit	LIMIT VALUE (Adult)	TEST METHOD
Asbestos (Appendix 11)		mg/kg	Not detected	Microscopic examination
Bisphenol A (BPA)	Migration	mg/L	≤ 0,04	EN 71-10/11 (migration)
	Total amount	mg/kg	≤ 1	Solvent extraction, LC-MS / GC-MS analysis
Chloroparaffines: Short chained (SCCPs : C10-C13)		mg/kg	≤ 50 (sum)	Ref. ISO 18219-1
Chloroparaffines: Medium chained (MCCPs : C14-C17)		mg/kg	≤ 1000 (sum)	Ref. ISO 18219-2
Dioxin and Furans (Appendix 13)		mg/kg	According to dedicated appendix	Extraction with organic solvent - GC-MS
Flame Retardants (Appendix 12)		mg/kg	Not detectable (≤ 5 mg/kg)	Extraction with organic solvent - Analysis by GC-MS; GC-ECD; LC-MS
Heavy Metals (total amount)	Cadmium	mg/kg	≤ 75	EN 1122 (Microwave digestion - ICP)
	Lead	mg/kg	≤ 90	Microwave digestion; ICP-MS/OES - ref: CPSC-CH-E-1002-08.3 CPSC-CH-E-1003-09.1 (painted access.)
	Mercury	mg/kg	≤ 10 (coating materials)	Microwave digestion ICP-MS/OES
Organotin compounds (Appendix 10)		mg/kg	≤ 1 (TBT, TBTO, TPhT) ≤ 2 (others)	ISO/TS 16179
Phthalates (Appendix 18)	BBP, DBP, DEHP, DIBP, DPP, DMEP, DIHP, DHNUP, DHP-DnHP	mg/kg	Detox: since 2014/09 ≤ 10 mg/kg (sum)	CPSC-CH-C1001-09.4 Ref. ISO 16181
	DIDP, DNOP, DINP	mg/kg	Detox: since 2014/09 ≤ 10 mg/kg (sum)	CPSC-CH-C1001-09.4 Ref. ISO 16181
	All other esters of o-phthalic acid	mg/kg	N.A.	CPSC-CH-C1001-09.4 Ref. ISO 16181

PARAMETER	Unit	LIMIT VALUE (Adult)	TEST METHOD
PFAS: All PFAS as total organic fluorine (TOF)	mg/kg	≤ 100	EN 17813
Polychlorobiphenyls (PCB) (Appendix 18)	mg/kg	≤ 0,1	Ref. EPA 3540C + EPA 8082A
Polychloronaphthalenes (PCN) (Appendix 19)	mg/kg	≤ 1	Ref. EPA 3550C + EPA 8270E
Polycyclic Aromatic Hydrocarbons (IPA - PAH) (Appendix 14)	mg/kg	< 1	AfPS GS 2019:01 PAK
Siloxanes (Appendix 22)	mg/kg	≤ 1000	Solvent extraction, GC-MS analysis
Solvents (Appendix 15)	mg/kg	According to dedicated appendix	GB 19340:2003 "Extraction HS - SPME or Purge &Trap and Analysis by GC-MS" ISO/TS 16189
UV-Stabilizers (Appendix 21)	mg/kg	≤ 1000	ISO/DIS 24040 Solvent extraction, LC-MS analysis

PLASTIC ACCESSORIES – Additional Requirements for PVC

PARAMETER (refers to the coating material)	LIMIT VALUE (Adult)	TEST METHOD	DetectionLimit
Vinyl Chloride (monomer)	≤ 5 mg/kg	GB/T 4615 – ISO 6401	5 mg/kg
Lead – (Chloridric acid extractable)	≤ 90 mg/kg	GB 21550	0,2 mg/kg
Cadmium – (Chloridric acid extractable)	≤ 75 mg/kg	GB 21550	0,1 mg/kg
Volatile Substances	≤ 20 mg/kg	GB 21550	1 mg/kg

METAL ACCESSORIES

PARAMETER (refers to the coating material)		Unit	LIMIT VALUE (Adult)	TEST METHOD
Arsenic (total amount)		mg/kg	≤ 1000	Microwave digestion ICP-MS/OES GB/T 21198-6 - GB/T 28021
Bisphenol A (BPA)		mg/kg	≤ 1 (coating materials)	Solvent extraction, LC-MS / GC-MS analysis
Cadmium (total amount)		mg/kg	≤ 75	Microwave digestion ICP-MS/OES ref: GB/T 28021
Chromium VI		mg/kg	≤ 1000	GB/T 28019
Lead (total amount)		mg/kg	≤ 90	Microwave digestion ICP-MS/OES ref: CPSC-CH-E-1001-08.3 CPSC-CH-E-1003-09.1 (painted acc.) GB/T 28021
Mercury (total amount)		mg/kg	≤ 1000 ≤ 10 (coating materials)	Microwave digestion ICP-MS/OES GB/T 21198-6 - GB/T 28021
Nickel (released from metal accessories in direct and prolonged contact with skin)		µg/ cm^2 x week	≤ 0,50 ≤ 0,20 (only for pierced parts of human body)	EN 1811 (no coated, no painted and no plated accessories) EN 12472 + EN 1811 (coated, painted and plated accessories) EN 16128 (spectacle frames and sunglasses)
Phthalates (Appendix 18)	BBP, DBP, DEHP, DIBP, DPP, DMEP, DIHP, DHNUP, DHP-DnHP	mg/kg	Detox: since 2014/09 ≤ 10 mg/kg (sum)	CPSC-CH-C1001-09.4; ISO 8124-6
	DIDP, DNOP, DINP	mg/kg	Detox: since 2014/09 ≤ 10 mg/kg (sum)	CPSC-CH-C1001-09.4; ISO 8124-6
	All other esters of o-phthalic acid	mg/kg	N.A.	CPSC-CH-C1001-09.4; ISO 8124-6
PFAS: all PFAS as total organic fluorine (TOF)		mg/kg	≤ 100 (coating materials)	EN 17813
Polychlorobiphenyls (PCB) (Appendix 18)		mg/kg	≤ 0,1 (coating materials)	Ref. EPA 3540C + EPA 8082A
Polychloronaphthalenes (PCN) (Appendix 19)		mg/kg	≤ 1 (coating materials)	Ref. EPA 3550C + EPA 8270E

MIROGLIO FASHION s.r.l.
Via Santa Barbara, 11
12051 ALBA (CN) - ITALY
www.mirogliofashion.com

GLASS AND CRYSTAL ACCESSORIES

PARAMETER	Unit	LIMIT VALUE (Adult)	TEST METHOD
Bisphenol A (BPA)	mg/kg	≤ 1 (coating materials)	Solvent extraction, LC-MS / GC-MS analysis
Cadmium (total amount)	mg/kg	≤ 75	Microwave digestion ICP-MS/OES ref: CPSC-CH-E-1002-08.3
Lead (total amount)	mg/kg	≤ 90	CPSC-CH-E-1002-08.3 CPSC-CH-E-1003-09.1 (painted accessories)
Mercury (total amount)	mg/kg	≤ 1000 ≤ 10 (coating materials)	Microwave digestion ICP-MS/OES
PFAS: all PFAS as total organic fluorine (TOF)	mg/kg	≤ 100 (coating materials)	EN 17813
Polychlorobiphenyls (PCB) (Appendix 18)	mg/kg	≤ 0,1 (coating materials)	Ref. EPA 3540C + EPA 8082A
Polychloronaphthalenes (PCN) (Appendix 19)	mg/kg	≤ 1 (coating materials)	Ref. EPA 3550C + EPA 8270E

FOOTWEAR – RUBBER SHOES

Field of application	PARAMETER: Healthy and safe properties	Unit	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Uppers, linings and insocks (textile, synthetic leather and artificial leather)	pH Value		4,0 ÷ 9,0	GB/T 7573	=
	Formaldehyde		≤ 75	GB/T 2912.1	16 mg/kg
	Lead (extractable)		≤ 1.0	GB/T 17593.1	0,02 mg/kg
	Cadmium (extractable)		≤ 0.1	GB/T 17593.1	0,02 mg/kg
	Arsenic (extractable)		≤ 1.0	GB/T 17593.4	0,02 mg/kg
	Decomposable harmful aromatic amine dye (Appendix 1)	(*)(**)	Detox: since 2014/09 Not Detectable (≤ 1 mg/kg)	GB/T 17592	1 mg/kg
	Chlorinated phenols: PCP 2,3,5,6- TeCP	(*)(**)	Detox: since 2014/09 Not Detectable (≤ 0,05 mg/kg/kg)	GB/T 18414.1 GB/T 18414.2	0,05 mg/kg
	Dimethyl fumarate		≤ 0,1	ISO/TS 16186; GB/T 26713	
Rubber components	N-nitrosamines (Appendix 17)	(*)	≤ 0.5	GB/T 24153	≤ 0.5
	Polycyclic Aromatic Hydrocarbons (IPA - PAH) (Appendix 14)		N.A.	Extraction with organic solvent Analysis by GC-MS	
Lining and insocks (staining)	Color fastness to rubbing		≥ 2/3	QB/T 2882	=
Leather and fur	Chromium VI		≤ 3	EN ISO 17075-2; GB/T 22807	

MIROGLIO FASHION s.r.l.
Via Santa Barbara, 11
12051 ALBA (CN) - ITALY
www.mirogliofashion.com

PAPER and similar

PARAMETER		Notes	LIMIT VALUE (Adult)	TEST METHOD
Bisphenols	BPA	mg/kg	≤ 200	Solvent extraction, LC-MS / GC-MS analysis
	BPF	mg/kg	≤ 1000	
	BPS	mg/kg	≤ 1000	
Azo Dyes: aryl amines can be split off under reductive conditions (Appendix 1)		mg/kg	Detox: since 2014/09 Not detectable (≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 20 ppm	UNI EN ISO 14362-1,3 GB/T 17592.1 GB/T 23344
Heavy Metals (total amount)	Cadmium	mg/kg	≤ 100 (sum)	Microwave digestion ICP-MS/OES ref: CPSC-CH-E-1002-08.3; Cr VI: EN ISO 17075-2
	Chromium VI	mg/kg		
	Lead	mg/kg		
	Mercury	mg/kg		
Formaldehyde (free and extractable)		mg/kg	≤ 75	EN 645; EN 1541
Phthalates (painting/ coating materials)	BBP, DBP, DEHP, DIBP, DPP, DMEP, DIHP, DHNUP, DHP-DnHP	mg/kg	Detox: since 2014/09 ≤ 10 mg/kg (sum)	EN 14389 CPSC-CH-C1001-09.4 GB/T 20388 ISO 8124-6
	DIDP, DNOP, DINP	mg/kg	Detox: since 2014/09 ≤ 10 mg/kg (sum)	
	All other esters of o-phthalic acid	mg/kg	N.A.	
Alkylphenolethoxylates (APEOs) (Appendix 7)		mg/kg	Detox: since 2015/07 ≤ 1 mg/kg (sum) Recycled Content Maximum contamination limit (sum)= 250 ppm	Estrazione con solvente organico Analisi in GC-MS, rif. ISO 18857-1
Alkylphenols (APs) (Appendix 8)		mg/kg	Detox: since 2015/07 ≤ 1 mg/kg (sum) Recycled Content Maximum contamination limit (sum)= 250 ppm	Estrazione con solvente organico Analisi in LC-MS, rif. ISO 18254-1
PFAS: All PFAS as total organic fluorine (TOF)		mg/kg	≤ 100	EN 17813
Siloxsanes (Appendix 22)		mg/kg	≤ 1000	Solvent extraction, GC-MS analysis

MIROGLIO FASHION s.r.l.
Via Santa Barbara, 11
12051 ALBA (CN) - ITALY
www.mirogliofashion.com

CUSTOM JEWELLERY (Metal parts only)

PARAMETER	Unit	LIMIT VALUE (Adult)	TEST METHOD
Arsenic (total amount)	mg/kg	≤ 1000	Microwave digestion ICP-MS/OES; GB/T 21198-6 - GB/T 28021
Bisphenol A (BPA)	mg/kg	≤ 1 (coating materials)	Solvent extraction, LC-MS / GC-MS analysis
Cadmium (total amount)	mg/kg	≤ 75	Microwave digestion ICP-MS/OES ref: GB/T 28021
Chromium VI	mg/kg	≤ 1000	GB/T 28019
Lead (total amount)	mg/kg	≤ 90	Microwave digestion ICP-MS/OES ref: CPSC-CH-E-1001-08.3 CPSC-CH-E-1003-09.1 (painted acc.) GB/T 28021
Mercury (total amount)	mg/kg	≤ 1000 ≤ 10 (coating materials)	Microwave digestion ICP-MS/OES GB/T 21198-6 - GB/T 28021
Nickel (released from metal accessories in direct and prolonged contact with skin)	µg/ cm^2 x week	≤ 0,50	EN 1811 (no coated, no painted and no plated accessories); EN 12472 + EN 1811 (coated, painted and plated accessories)

Extractable Heavy Metals (HCl 0,07M)	Unit	LIMIT VALUE (Adult)	TEST METHOD
Aluminium	mg/kg	N.A.	ASTM F963-11 KS G ISO 8124-3 ISO 8124-3 EN 71-3 (Test only if coating material ≥ 10 mg)
Antimony	mg/kg	≤ 60	
Arsenic	mg/kg	≤ 25	
Barium	mg/kg	≤ 1000	
Cadmium	mg/kg	≤ 75	
Chromium (total)	mg/kg	≤ 60	
Chromium (VI)	mg/kg	N.A.	
Cobalt	mg/kg	N.A.	
Copper	mg/kg	N.A.	
Lead	mg/kg	N.A.	
Manganese	mg/kg	N.A.	
Mercury	mg/kg	≤ 60	
Nickel	mg/kg	N.A.	
Selenium	mg/kg	≤ 460	
Strontium	mg/kg	N.A.	
Organotin Compounds	mg/kg	N.A.	
Tin	mg/kg	N.A.	
Zinc	mg/kg	N.A.	

SAFETY REQUIREMENTS

Extractable Heavy Metals (HCl 0,07M)	Notes	LIMIT VALUE (Adult)	TEST METHOD
Magnetic component	All products	Magnetic Flux Index < 50 kG2mm2 and in compliance in small part test Specific waring is mandatory	ISO 8124-1; ASTM F963; EN 71-1; GB 6675.2
Sharp edge	All products	No sharp edge	GB/T 31702; EN-71-1; ISO 8124-1; 16 CFR Parts 1500.49 ASTM F 963 4.7
Sharp point	All products	No sharp point	GB/T 31702 ; EN-71-1; ISO 8124-1; 16 CFR Parts 1500.48 ASTM F 963 4.8

HYGIENE AND CLEANLINESS FOR FEATHER AND DOWN

Parameter	Unit	Requirements	Test method reference
Mesophilic aerobic microbial count	Colony Forming units (CFU/g)	$< 10^6$	EN 1884
Oxygen index number	Oxygen index number	≤ 20	EN 1162
		≤ 4,8	JIS L1903
		≤ 10	ASTM D-4522
Salmonella	Colony Forming units (CFU/g)	Absent in 20 g	EN 1884
Streptococci	Colony Forming units (CFU/g)	$< 10^2$	EN 1884
Sulphite reducing clostridia count	Colony Forming units (CFU/g)	$< 10^2$	EN 1884

FLAMMABILITY FOR TEXTILE (Raw Material and Finished Product)

Field of application	Requirements	Country	Test method reference
Clothing	Clothing Products for adults: flame spread of 127 mm must be no less than 4 seconds. Other apparel products and fabric suitable for clothing such as when testing the fabric should not have a burn time of 5 seconds or less.	Norway	ASTM D1230-61
	Textile materials should not be flammable and combustible that they pose a disproportionately high risk. Garments, and yarns for the manufacture of garments should not have rapid flame spread on its surface.	Switzerland	SN EN 1101; SN EN 1102; SN EN 1103
	Plain Surface Fabric: Class 1; Raised Surface Fabric: Class 1 - Class 2. Exemption: Plain surface fabrics: with weight exceeding 2.6 oz/yd2 (about 88 g/m2) or not weight dependent if obtained entirely or with a blend only made of the following fibers: acrylic, mod acrylic, nylon, olefin, polyester, wool. Raised surface fabrics: not weight dependent if obtained entirely or with a blend only made of the following fibers: acrylic, mod acrylic, nylon, olefin, polyester, wool.	USA	16 CFR Parts 1610
Nightwear	Marker thread (520 mm) not severed in less than 10 seconds and no ignition of filter paper by flaming debris in less than 10 seconds.	Netherlands	EN 1103
	Meet Flammability Standard BS 5722 or labelled appropriately: 300 mm trip threat not severed in less than 25 seconds and 600 mm trip thread not severed in less than 50 seconds.	UK	BS 5722; BS 5438; BS 5651
General textile products	Textile products are prohibited if they have a flame spread time of one of the following: 3.5 seconds or less, if the product does not have a raised fiber surface; or 4 seconds or less, if the product has a raised fiber surface and exhibits ignition or fusion of its base fibers.	Canada	CAN/CGSB 4.2 N. 27.5-94
	Textile materials should not be flammable and combustible that they pose a disproportionately high risk. Garments, and yarns for the manufacture of garments should not have rapid flame spread on its surface.	Switzerland	SN EN 1101; SN EN 1102; SN EN 1103
Vinyl plastic film	The rate of burning shall not exceed 1.2 in/sec.	USA	16 CFR 1611

APPENDIX: Individual Substances

Appendix 1: AZO DYES - Forbidden Arylamines - (Detox Commitment)	Index Nr.	CAS Nr
Benzidine	612-042-00-2	92-87-5
Biphenyl-4-ylamin; 4-aminobiphenyl; xenylamine	612-072-00-6	92-67-1
o-aminoazotoluene; 4-amino-2',3-dimethylazobenzene; 4-o-tolylazo-otoluidine	611-006-00-3	97-56-3
o-anisidine; 2-methoxyaniline	612-035-00-4	90-04-0
o-toluidine; 2-aminotoluene	612-091-00-X	95-53-4
2,4-xylidine		95-68-1
2,4,5-trimethylaniline		137-17-7
2,6-xylidine		87-62-7
2-naphtylamine	612-022-00-3	91-59-8
3,3'-dichlorobenzidine; 3,3'-dichlorobiphenyl-4; 4'-ylenediamine	612-068-00-4	91-94-1
3,3'-dimethoxybenzidine; o-dianisidine	612-036-00-X	119-90-4
3,3-dimethylbenzidine; 4,4'-bi-o-toluidine	612-041-00-7	119-93-7
4,4'-methylenedianiline; 4,4'-diaminodiphenylmethane	612-051-00-1	101-77-9
4,4'-methylenedi-o-toluidine	612-085-00-7	838-88-0
4,4'-metylene-bis (2-chloro-aniline); 2,2'-dichloro-4,4'-methylenedianiline	612-078-00-9	101-14-4
4,4'-oxydianiline		101-80-4
4,4'-thiodianiline		139-65-1
4-amino azobenzene	611-008-00-4	60-09-3
4-chloroaniline		106-47-8
4-chloro-o-toluidine		95-69-2
4-methoxy-m-phenylenediamine		615-05-4
4-methyl-m-phenylenediamine	612-099-00-3	95-80-7
5-nitro-o-toluidine		99-55-8
6-methoxy-m-toluidine; p-cresidine		120-71-8
chloro-o-toluidinium chloride		3165-93-3
2-Naphthylammoniumacetate		553-00-4
4-methoxy-m-phenylene diammonium sulphate		39156-41-7
2,4,5-trimethylaniline hydrochloride		21436-97-5

Appendix 2: Carcinogenic Dyes - (Detox Commitment)	C.I. Nr	CAS Nr
C.I. Acid Red 26	C.I. 16 150	3761-53-3
C.I. Acid Red 114		6459-94-5
C.I. Basic Blue 26		2580-56-5
C.I. Basic Green 4 (Chloride)		569-64-2
C.I. Basic Green 4 (Free)		10309-95-2
C.I. Basic Green 4 (Oxalate)		2437-29-8 18015-76-4
C.I. Basic Red 9	C.I. 42 500	569-61-9
C.I Basic Violet 3		548-62-9
C.I. Basic Violet 14	C.I. 42 510	632-99-5
C.I. Direct Black 28	C.I. 35260	6745-67-1
C.I. Direct Black 38	C.I. 30 235	1937-37-7
C.I. Direct Blue 6	C.I. 22 610	2602-46-2
C.I. Direct Blue 15		2429-74-5
C.I. Direct Brown 95		16071-86-6
C.I. Direct Red 28	C.I. 22 120	573-58-0
C.I. Disperse Blue 1	C.I. 64 500	2475-45-8
C.I. Disperse Yellow 3	C.I. 11 855	2832-40-8
C.I. Disperse Yellow 23 (*)	C.I. 26 070	6250-23-3
C.I. Disperse Orange 11	C.I. 60700	82-28-0
C.I. Disperse Orange 149 (*)		85136-74-9
C.I. Pigment Red 104	C.I. 77605	12656-85-8
C.I. Pigment Yellow 34	C.I.77603	1344-37-2
C.I. Solvent Yellow 1	C.I. 11100	60-09-3
C.I. Solvent Yellow 3		97-56-3

Appendix 3: Allergenic Disperse Dyes (Detox Commitment)	C.I. Nr	CAS Nr
C.I. Disperse Blue 1	C.I. 64 500	2475-45-8
C.I. Disperse Blue 3	C.I. 61 505	2475-46-9
C.I. Disperse Blue 7	C.I. 62 500	3179-90-6
C.I. Disperse Blue 26	C.I. 63 305	3860-63-7
C.I. Disperse Blue 102		12222-97-8
C.I. Disperse Blue 106		12223-01-7
C.I. Disperse Blue 124		61951-51-7
C.I. Disperse Brown 1		23355-64-8
C.I. Disperse Orange 1	C.I. 11 080	2581-69-3
C.I. Disperse Orange 3	C.I. 11 005	730-40-5
C.I. Disperse Orange 37	C.I. 11 132	12223-33-5
C.I Disperse Orange 76	C.I. 11 132	13301-61-6
C.I Disperse Orange 59	C.I. 11 132	51811-42-8
C.I. Disperse Orange 149 (*)		85136-74-9
C.I. Disperse Red 1	C.I. 11 110	2872-52-8
C.I. Disperse Red 11	C.I. 62 015	2872-48-2
C.I. Disperse Red 17	C.I. 11 210	3179-89-3
C.I. Disperse Yellow 1	C.I. 10 345	119-15-3
C.I. Disperse Yellow 3	C.I. 11 855	2832-40-8
C.I. Disperse Yellow 9	C.I. 10 375	6373-73-5
C.I. Disperse Yellow 23 (*)		6250-22-3
C.I. Disperse Yellow 39		12236-29-2
C.I. Disperse Yellow 49		54824-37-2

Appendix 4: Chlorophenols - (Detox Commitment)	CAS Nr
Pentachlorophenol (PCP)	87-86-5
2,3,5,6 Tetrachlorophenols	935-95-5
2,3,4,6 Tetrachlorophenols	58-90-2
2,3,4,5 Tetrachlorophenols	4901-51-3
2,3,4-Trichlorophenol	15950-66-0
2,3,5-Trichlorophenol	933-78-8
2,3,6-Trichlorophenol	933-75-5
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
3,4,5-Trichlorophenol	609-19-8

Appendix 5: Chlorinated Organic Carriers (Chlorobenzene-Chlorotoluene) - (Detox Commitment)	CAS Nr
Chlorotoluenes (all isomers)	25168-05-2
Dichlorobenzenes (all isomers)	25321-22-6
Dichlorotoluenes (all isomers)	29797-40-8
Hexachlorobenzene	118-74-1
Pentachlorobenzene	608-93-5
Pentachlorotoluene	877-11-2
Tetrachlorobenzenes	634-66-2 634-90-2 95-94-3
Tetrachlorotoluenes	2136-89-2 5216-25-1
Trichlorobenzenes (all isomers)	12002-48-1
Trichlorotoluenes	2077-46-5 98-07-7

Appendix 6: Biocides - (Detox Commitment)	CAS Nr
Aldrine	309-00-2
Azinophosetyl	2642-71-9
Azinophosmethyl	86-50-0
Bromophos-ethyl	4824-78-6
Captafol	2425-06-1
Carbaryl	63-25-2
Chlordane	57-74-9
Chlordimeform	6164-98-3
Chlorphenvinphos	470-90-6
Coumaphos	56-72-4
Cyfluthrin	68359-37-5
Cyhalothrin	91465-08-6
Cypermethrin	52315-07-8
DDD	53-19-0, 72-54-8
DDE	3424-82-6, 72-55-9
DDT	50-29-3, 789-02-6
DEF	78-48-8
Deltamethrin	52918-63-5
Diazinon	333-41-5
Dichlorprop	120-36-5
Dicrotophos	141-66-2
Dieldrin	60-57-1
Dimethoate	60-51-5
Dinoseb and salts	88-85-7
DTTB	57648-21-2
Endosulfan (α)	959-98-8
Endosulfan (β)	33213-65-9
Endrine	72-20-8
Esfenvalerat	66230-04-4

Appendix 6: Biocides - (Detox Commitment)	CAS Nr
Fenvalerate	51630-58-1
Heptachlor	76-44-8
Heptachlorepoxide	1024-57-3
Hexachlorobenzene	118-74-1
α-Hexachlorcyclohexane	319-84-6
β-Hexachlorcyclohexane	319-85-7
δ-Hexachlorcyclohexane	319-86-8
Lindane (g-HCH)	58-89-9
Malathion	121-75-5
MCPA	94-74-6
MCPB	94-81-5
Mecroprop	93-65-2
Metamidophos	10265-92-6
Methoxychlor	72-43-5
Mirex	2385-85-5
Monocrotophos	6923-22-4
Parathion	56-38-2
Parathion-methyl	298-00-0
Permethrin	52645-53-1
Phosdrin/Mevinphos	7786-34-7
Profenophos	41198-08-7
Propethamphos	31218-83-4
Quinalphos	13593-03-8
Toxaphen (Camphechlor)	8001-35-2
Trifluralin	1582-09-8
2,4,5-T	93-76-5
2,4-D	94-75-7
Dicofol	115-32-2
Chlordecone (Kepone)	143-50-0

Appendix 7: Alkylphenolethoxylates (APEOs)	CAS No.
Nonylphenol Ethoxylates NPEO (1-2)	Various
Nonylphenol Ethoxylates NPEO (3-18)	Various
Octylphenol Ethoxylates OPEO (1-2)	Various
Octylphenol Ethoxylates OPEO (3-18)	Various
Unbekanntes Farbmittel 94 (SIN list)	37205-87-1
4-Nonylphenyl-polyethylene glycol	9016-45-9
Polyoxyethylene nonylphenylether, branched (NPEs 3-18)	68412-54-4
Polyoxyethylene t-octylphenyl ether (OPEs 3-18)	9002-93-1
4-Nonylphenol, branched, ethoxylated	127087-87-0
4-Nonylphenol, ethoxylated	26027-38-3
Octylphenolethoxylate, branched	68987-90-6
Octylphenolethoxylate, branched	9036-19-5

Appendix 8: Alkylphenols (APs)	CAS No.
Nonylphenol	104-40-5
Nonylphenol, branched	90481-04-2
Nonylphenol NP	Various
Octylphenol, branched	27193-28-8
Octylphenol OP	Various
4-Nonylphenol (various, branched and linear)	25154-52-3
4-Nonylphenol, branched	84852-15-3
4-Octylphenol (linear)	1806-26-4
4-(1,1,3,3-Tetramethylbutyl)-phenol; 4-(t-Octyl)phenol	140-66-9

Appendix 9-1: PFOA and related substances	Substance	Short form	CAS No.
PFOA	Perfluorooctanoic Acid	PFOA	335-67-1
Salts (examples)	Ammonium perfluorooctanoate	APFO	3825-26-1
	Sodium perfluorooctanoate		335-95-5
	Potassium perfluorooctanoate		2395-00-8
	Perfluorooctanoic acid, silver salt		335-93-3
	Ethanaminium, N,N,N-triethyl-, salt with perfluorooctanoic acid (1:1)		98241-25-9
PFOA related substances	8:2 Fluorotelomer alcohol	8:2 FTOH	678-39-7
	8:2 Fluorotelomer acrylate	8:2 FTAC	27905-45-9
	8:2 Fluorotelomer methacrylate	8:2 FTMAC	1996-88-9
	8:2 Fluorotelomer phosphate monoester	8:2 monoPAP	57678-03-2
	8:2 Fluorotelomer phosphate diester	8:2 diPAP	678-41-1
	Polyfluorinated silanes	C8-PFSi	various (i.e., 3102-79-2)
	Perfluorooctyl phosphonic acid	C8-PFPA	40143-78-0
	Polyfluorinated iodide	8:2 FTI	2043-53-0
	Perfluorooctyl iodide	PFOI	507-63-1
	Perfluorooctanoyl fluoride		335-66-0
	Methyl perfluorooctanoate		376-27-2
	Ethyl perfluorooctanoate		3108-24-5

Perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds are defined in POP Regulation (2019/1021) as the following: perfluorooctanoic acid, including any of its branched isomers, its salts and PFOA-related compounds which are any substances that degrade to PFOA, including any substances (including salts and polymers) having a linear or branched perfluoroheptyl group with the moiety (C_7F_{15})-C as one of the structural elements.

The following compounds are not included as PFOA-related compounds:
C_8F_{17}-X, where X = F, Cl, Br;

- fluoropolymers that are covered by $CF_3[CF_2]_n$-R', where R'=any group, n> 16;
- perfluoroalkyl carboxylic acids (including their salts, esters, halides and anhydrides) with ≥ 8 perfluorinated carbons;
- perfluoroalkane sulfonic acids and perfluoro phosphonic acids (including their salts, esters, halides and anhydrides) with ≥ 9 perfluorinated carbons

Appendix 9-2: PFOS	Substance	Short form	CAS No.
PFOS	Perfluorooctane sulfonic acid		335-67-1
	Perfluorooctane sulfonamide	PFOSA	754-91-6
	N-ethylperfluoro-1-octanesulfonamide	EtFOSA	4151-50-2
	N-methylperfluoro-1-octanesulfonamide	MeFOSA	31506-32-8
	2-(N-ethylperfluoro-1-octanesulfonamido-ethanol	EtFOSE	1691-99-2
	2-(N-metilperfluoro-1-octansulfonamido)-ethanol	N-MeFOSE	24448-09-7
	Perfluorooctanesulfonyl fluoride		307-35-7

Perfluorooctane sulfonic acid and its derivatives (PFOS) are defined in POP Regulation (2019/1021) as the following:

- $C_8F_{17}SO_2X$, where X = OH, Metal salt (O-M+), halide, amide, and other derivatives including polymers.

Appendix 9-3: Short chain PFAS	Substance	Short form	CAS No.
Perfluorobutane sulfonic acid and its salts	Perfluorobutane-1-sulphonic acid	PFBS	375-73-5
	Perfluorobutane-1-sulphonate salts		various
Perfluorohexane-1-sulphonic acid and its salts	Perfluorohexane-1-sulphonic acid	PFHxS	355-46-4
	Perfluorohexane-1-sulphonate salts		various
Perfluoro-2-methyl-3-oxahexanoic acid, its salts and its acyl halides	Perfluoro-2-methyl-3-oxahexanoic acid		13252-13-6
	Perfluoro-2-methyl-3-oxahexanoate salts and halides		various

All perfluoroalkyl substances with short chain (less than six carbon atoms in the perfluoro section of the molecule) listed in the Candidate List of SVHC. The above list is not exhaustive.

Appendix 9-4: Long chian PFAS	Substance	Short form	CAS No.
Long chain perfluoralkyl acids (C_9-C_{14})	Perfluorononanoic acid	PFNA	375-95-1 / 21049-39-8 / 4149-60-4
	Perfluorodecanoic acid	PFDA	335-76-2
	Perfluoroundecanoic acid	PFDUdA	2058-94-8
	Perfluorododecanoic acid	PFDoA	307-55-1
	Perfluorotridecanoic acid	PETrA	72629-94-8
	Perfluorotetradecanoic acid	PFTA	376-06-7
Long chain perfluoralkyl related substances (C_9-C_{14})	1H,1H,2H,2H-Perfluoro-1-Dodecanol	10:2 FTOH	865-86-1
	2H,2H,3H,3H- Perfluoroundecanoic acid	H4PFUnA	34598-33-9
	1H,1H,2H,2H- Perfluorododecylacrylate	10:2 FTA	17741-60-5
	Perfluoro-3,7-dimethyloctanoic Acid	PF-3,7-DMOA	172155-07-6
	1H,1H,2H,2H-perfluoro-1-dodecanesolfonate	10:2 FTS	108026-35-3
	1H,1H,2H,2H-Perfluorodecan-solfonate	8:2 FTS	39108-34-4
	Perfluorodecansulphonic acid	PFDS	335-77-3 / 2806-15-7 / 2806-16-8 / 67906-42-7
	Perfluorononansulphonic acid	PFNS	35192-74-6 / 29359-39-5 / 17202-41-4
	Perfluorododecansulphonic acid	PFDoS	

C_9-C_{14} linear and/or branched perfluorocarboxylic acids (C_9-C_{14} PFCAs), their salts and C_9-C_{14} PFCAs-related substances defined in REACH Regulation (1907/2006) Entry 68:

- Linear and branched perfluorocarboxylic acids of the formula C_nF_{2n+1}-C(= O)OH where n = 8, 9, 10, 11, 12, or 13 (C_9-C_{14} PFCAs), including their salts, and any combinations thereof;
- Any C_9-C_{14} PFCA-related substance having a perfluoro group with the formula C_nF_{2n+1}- directly attached to another carbon atom, where n = 8, 9, 10, 11, 12, or 13, including their salts and any combinations thereof;
- Any C_9-C_{14} PFCA-related substance having a perfluoro group with the formula C_nF_{2n+1}- that it is not directly attached to another carbon atom, where n = 9, 10, 11, 12, 13 or 14 as one of the structural elements, including their salts and any combinations thereof.

The following substances are excluded from this designation:

- C_nF_{2n+1}-X, where X = F, Cl, or Br where n = 9, 10, 11, 12, 13 or 14, including any combinations thereof,
- C_nF_{2n+1}-C(= O)OX' where n> 13 and X'=any group, including salts.

Appendix 10: Organotin compounds	Short Form	CAS Nr
Dibutyltin	DBT	1002-53-5
Dimethyltin	DMT	2067-76-7
Dioctyltin	DOT	15231-44-4
Diphenyltin	DPhT	6381-06-2
Dipropyltin	DPT	2406-60-2
Monobutyltin	MBT	78763-54-9
Monomethyltin	MMT	various
Monooctyltin	MOT	various
Monophenyltin	MPhT	various
Tetrabutyltin	TeBT	1461-25-2
Tetraethyltin	TeET	597-64-8
Tetraoctyltin	TeOT	3590-84-9
Tributyltin	TBT	56573-85-4
Tributyltin oxide	TBTO	56-35-9
Tricyclohexyltin	TCyHT	6056-50-4
Trimethyltin	TMT	5089-96-3
Trioctyltin	TOT	869-59-0
Triphenyltin	TPhT	668-34-8
Tripropyltin	TPT	761-44-4

Appendix 11: Asbestos	CAS No.
Actinolite	77536-66-4
Amosite	12172-73-5
Anthophyllite	77536-67-5
Chrysotile	12001-29-5
Crocidolite	12001-28-4
Tremolite	77536-68-6

Appendix 12: Flame Retardants	Short Form	CAS Nr
Bis-(2,3-dibromopropyl ether) of tetrabromobisphenol	BDBPT	21850-44-2
Bis-(2,3-dibromopropyl)phosphate	BIS	5412-25-9
Decabromodiphenylether	DecaBDE	1163-19-5
Heptabromodiphenylether	HeptaBDE	various
Hexabromocyclododecane	HBCDD	25637-99-4
Hexabromodiphenylether	HexaBDE	36483-60-0
Octabromodiphenylether	OctaBDE	32536-52-0
Pentabromodiphenylether	PBDE	32534-81-9
Nonabromodiphenylethers	NonaBDE	various
Polybrominated Biphenyls (hexa-)	PBB	59536-65-1
Tetrabromobisphenol A	TBBPA	79-94-7
Tetrabromodiphenylether	TetraBDE	5436-43-1
Tri(aziridin-1-yl)phosphine oxide	TEPA	5455-55-1
Tris-(chloroisopropyl)phosphate	TCPP	13674-84-5
Tris-(1,3-dichloro-2-propyl)phosphate	TDCPP	13674-87-8
Tris-(2-chloroethyl)phosphate	TCEP	115-96-8
Tris-(2,3-dibromopropyl)phosphate	TRIS - TDBPP	126-72-7
2,2-Bis(bromomethyl)-1,3-propanediol	BBMP	3296-90-0
2-Ethylhexyl-2,3,4,5-tetrabromobenzoate	TBB	183658-27-7
Bis(2-ethylhexyl)-2,3,4,5-tetrabromophtalate	TBPH	26040-51-7
Dibromobiphenyls	DiBB	various
Tribromobiphenyls	TriBB	various
Tetrabromobiphenyls	TetraBB	various
Pentabromobiphenyls	PentaBB	various
Heptabromobiphenyls	HeptaBB	various
Octabromobiphenyls	OctaBB	various
Nonabromobiphenyls	NonaBB	various
Decabromobiphenyl	DeacaBB	13654-09-6

Appendix 13: Dioxin and Furans	CAS Nr	**Group**	**Limit** (µg/kg)
1,2,3,7,8-pentachlorodibenzo-p-dioxin	40321-76-4	1	≤ 1
2,3,4,7,8-pentachlorodibenzo-furan	57117-31-4		
2,3,7,8-tetrachlorodibenzo-furan	51207-31-9		
2,3,7,8-tetrachlorodibenzo-p-dioxin	1746-01-6		
1,2,3,4,7,8-hexachlorodibenzo-p-dioxin	39227-28-6	2	≤ 5
1,2,3,6,7,8-hexachlorodibenzo-p-dioxin	57653-85-7		
1,2,3,6,7,8-hexachlorodibenzofuran	57117-44-9		
1,2,3,7,8,9-hexachlorodibenzo-p-dioxin	19408-74-3		
1,2,3,7,8,9-hexachlorodibenzofuran	57117-41-6		
1,2,3,7,8-pentachlorodibenzofuran	57117-41-6		
2,3,4,6,7,8-hexachlorodibenzofuran	60851-34-5		
1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin	35822-46-9	3	≤ 100
1,2,3,4,6,7,8-heptachlorodibenzofuran	67562-39-4		
1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin	3268-87-9		
1,2,3,4,6,7,8,9-octachlorodibenzofuran	39001-02-0		
1,2,3,4,7,8,9-heptachlorodibenzofuran	55673-89-7		
1,2,3,7,8-pentabromodibenzo-p-dioxin	109333-34-8	4	≤ 1
2,3,4,7,8-pentabromodibenzofuran	131166-92-2		
2,3,7,8-tetrabromodibenzofuran	67733-57-7		
2,3,7,8-tetrabromodibenzo-p-dioxin	50585-41-6		
1,2,3,4,7,8-hexabromdibenzo-p-dioxin	110999-44-5	5	≤ 5
1,2,3,6,7,8-hexabromodibenzo-p-dioxin	110999-45-6		
1,2,3,7,8-pentabromodibenzofuran	107555-93-1		
1,2,3,7,8,9-hexabromodibenzo-p-dioxin	110999-46-7		

Appendix 14: Polycyclic Aromatic Hydrocarbons(IPA – PAH) - (Detox Commitment)	CAS Nr
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Anthracene	120-12-7
Benzo[a]anthracene	56-55-3
Benzo[a]pyrene	50-32-8
Benzo[b]fluoranthene	205-99-2
Benzo[e]pyrene	192-97-2
Benzo[ghi]perylene	191-24-2
Benzo[k]fluoranthene	207-08-9
Benzo[j]fluoranthene	205-82-3
Chrysene	218-01-9
Dibenzo[a,h]anthracene	53-70-3
Fluoranthene	206-44-0
Fluorene	86-73-7
Indeno[1,2,3-cd]pyrene	193-39-5
Naphthalene	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Appendix 15: Solvents	Unit	Substance	CAS No.	Requirements	Test method reference
Chlorinated Solvents	mg/kg	α-Chlorotoluene	100-44-7	≤ 1	DIN 54232 *In case of positivity the presence of α-Chlorotoluene must be confirmed with the LC-MS/MS method
	mg/kg	Methylene chloride	75-09-2	≤ 50 (sum)	GB 19340 "Extraction HS - SPME or Purge & Trap and Analysis by GC-MS"
	mg/kg	Trichloroethylene	79-01-6		
	mg/kg	1,2 Dichloroethane	107-06-2		
	mg/kg	1,1,2 Trichloroethane	79-00-5		
	mg/kg	Carbon Tetrachloride	56-23-5	≤ 1000	
	mg/kg	Chloroform	67-66-3	≤ 1000	
	mg/kg	Pentachloroethane	76-01-7	≤ 1000	
	mg/kg	Tetrachloroethylene	127-18-4	≤ 1000	
	mg/kg	1,1-Dichloroethylene	75-35-4	≤ 1000	
	mg/kg	1,1,1-Trichloroethane	71-55-6	≤ 1000	
	mg/kg	1,1,1,2-Tetrachloroethane	630-20-6	≤ 1000	
	mg/kg	1,1,2,2-Tetrachloroethane	79-34-5	≤ 1000	
Volatile Organic Compound (VOC)	mg/kg	Benzene	71-43-2	≤ 5	
	mg/kg	Methyl Alcohol	67-56-1	≤ 1000	
	mg/kg	N-exane	110-54-3	≤ 150	
	mg/kg	Toluylen diisocyanate (free)	26471-62-5	≤ 10	
	mg/kg	Toluene	108-88-3	≤ 200	
	mg/kg	Acetophenone	98-86-2	≤ 50	EPA 5021A + EPA 8260D
Other Solvents	mg/kg	N-Methyl-2-pyrrolidone (NMP)	872-50-4	≤ 1000	GB 19340 "Extraction HS - SPME or Purge & Trap and Analysis by GC-MS"
	mg/kg	N,N-Dimethylacetamide (DMAc)	127-19-5	≤ 1000	
	mg/kg	2-Methoxyethanol	109-86-4	≤ 10	Solvent extraction and Analysis by GC-MS/LC-MS
	mg/kg	Dimethylformamide (DMF)	68-12-2	≤ 200	ISO/TS 16189
	mg/kg	2-phenylpropan-2-ol	617-94-7	≤ 50	EPA 5021A + EPA 8260D
	mg/kg	Formamide	75-12-7	≤ 1000	Solvent extraxtion, GC-MS or LC-MS analysis

Appendix 16: Phthalates	Short form	CAS Nr
BenzylButylphthalate	BBP	85-68-7
Dibutylphthalate	DBP	84-74-2
Diisobutyl phthalate	DIBP	84-69-5
Di-iso-decylphthalate	DIDP	26761-40-0 68515-49-1
Di-iso-nonylphthalate	DINP	28553-12-0 68515-48-0
Di-pentylphtalate (n-, iso- or mixed)	DPP	131-18-0 605-50-5 776297-69-9 84777-06-0
Di-2-ethylhexyl)phthalate	DEHP	117-81-7
Di-2-methoxyethyl)phthalate	DMEP	117-82-8
Di-n-octylphthalate	DNOP	117-84-0
Di-n-hexylphthalate	DHP-DnHP	84-75-3
1,2-benzendicarboxilic acid, di C6-8 branched alkyl esters C7 rich	DIHP	71888-89-6
1,2-benzendicarboxilic acid, di C7-11 branched and linear alkyl esters C7 rich	DHNUP	68515-42-4

Appendix 17: N-nitrosamines - (Detox Commitment)	CAS Nr
N-nitrosodiethylamine	55-18-5
N-nitrosodibutylamine	924-16-3
N-nitrosodimethylamine	62-75-9
N-nitrosodipropylamine	621-64-7
N-nitrosomorpholine	59-89-2
N-nitroso-N-ethylaniline	612-64-6
N-nitroso-N-methylaniline	614-00-6
N-nitrosopiperidine	100-75-4
N-nitrosopyrrolidine	930-55-2
N-nitrosodiethylamine	55-18-5
N-nitrosodibutylamine	924-16-3
N-nitrosodimethylamine	62-75-9
N-nitrosodipropylamine	621-64-7

	Appendix 18: Polychlorobiphenyls	CAS No.
1	2,4,4'-trichlorobiphenyl (PCB 28)	7012-37-5
2	2,2',5,5'-tetrachlorobiphenyl (PCB 52)	35693-99-3
3	3,3',4,4'-tetrachlorobiphenyl (PCB 77)	32598-13-3
4	3,4,4',5-tetrachlorobiphenyl (PCB 81)	70362-50-4
5	2,2',4,5,5'-pentachlorobiphenyl (PCB 101)	37680-73-2
6	2,3,3',4,4'-pentachlorobiphenyl (PCB 105)	32598-14-4
7	2,3,4,4',5-pentachlorobiphenyl (PCB 114)	74472-37-0
8	2,3',4,4',5-pentachlorobiphenyl (PCB 118)	31508-00-6
9	2',3,4,4',5-pentachlorobiphenyl (PCB 123)	65510-44-3
10	3,3',4,4',5-pentachlorobiphenyl (PCB 126)	57465-28-8
11	2,2',3,4,4',5'-hexachlorobiphenyl (PCB 138)	35065-28-2
12	2,2',4,4',5,5'-hexachlorobiphenyl (PCB 153)	35065-27-1
13	2,3,3',4,4',5-hexachlorobiphenyl (PCB 156)	38380-08-4
14	2,3,3',4,4',5'-hexachlorobiphenyl (PCB 157)	69782-90-7
15	2,3',4,4',5,5'-hexachlorobiphenyl (PCB 167)	52663-72-6
16	3,3',4,4',5,5'-hexachlorobiphenyl (PCB 169)	32774-16-6
17	2,2',3,4,4',5,5'-heptachlorobiphenyl (PCB 180)	35065-29-3
18	2,3,3',4,4',5,5'-heptachlorobiphenyl (PCB 189)	39635-31-9

	Appendix 19: Polychloronaphthalenes	CAS No.
1	2-chloronaphthalene	91-58-7
2	1,2-dichloronaphthalene	20250-69-3
3	1,2,3-trichloronaphthalene	50402-52-3
4	1,2,3,4-tetrachloronaphthalene	20020-02-4
5	1,2,3,5,7-pentachloronaphthalene	53555-65-0
6	1,2,3,4,5,6-hexachloronaphthalene	58877-88-6
7	1,2,3,4,5,6,7-heptachloronaphthalene	58863-14-2
8	Octachloronaphthalene	2234-13-1

Appendix 20: Heavy Metals (extractable) EN 71-3	**Short form**	**CAS No.**	**Unit**	**Category I** Solid materials which may leave residues on the hands	**Category II** Fluid or viscous materials which can be ingested or have skin contact	**Category III** Solid materials which can be ingested by biting, tooth scraping, sucking or licking
Aluminium	Al	7429-90-5	mg/kg	2250	560	28130
Antimony	Sb	7440-36-0	mg/kg	45	11,3	560
Arsenic	As	7440-38-2	mg/kg	3,8	0,9	47
Barium	Ba	7440-39-3	mg/kg	1500	375	18750
Boron	B	7440-42-8	mg/kg	1200	300	15000
Cadmium	Cd	7440-43-9	mg/kg	1,3	0,3	17
Chromium III	Cr (III)	7440-47-3	mg/kg	37,5	9,4	460
Chromium VI	Cr (VI)	18540-29-9	mg/kg	0,02	0,005	0,053
Cobalt	Co	7440-48-4	mg/kg	10,5	2,6	130
Copper	Cu	7440-50-8	mg/kg	622,5	156	7700
Lead	Pb	7439-92-1	mg/kg	2,0	0,5	23
Manganese	Mn	7439-96-5	mg/kg	1200	300	15000
Mercury	Hg	7439-97-6	mg/kg	7,5	1,9	94
Nickel	Ni	7440-02-0	mg/kg	75	18,8	930
Selenium	Se	7782-49-2	mg/kg	37,5	9,4	460
Strontium	Sr	7440-24-6	mg/kg	4500	1125	56000
Tin	Sn	7440-31-5	mg/kg	15000	3750	180000
Organic tin	Sn	various	mg/kg	0,9	0,2	12
Zinc	Zn	7440-66-6	mg/kg	3750	938	46000

Appendix 21: UV-Stabilizers	Short form	CAS No.
2-(2H-Benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol	UV 350	36437-37-3
2-(2H-Benzotriazol-2-yl)-4,6-di-tert-pentylphenol	UV 328	25973-55-1
2,4-Di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol	UV 327	3864-99-1
2-Benzotriazol-2-yl-4,6-di-tert-butylphenol	UV 320	3846-71-7
2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol	UV 329	3147-75-9
Bumetrizole	UV 326	3896-11-5

Appendix 22: Siloxsanes	CAS No.
Octamethylcyclotetrasiloxane (D4)	556-67-2
Decamethylcyclopentasiloxane (D5)	541-02-6
Dodecamethylcyclohexasiloxane (D6)	540-97-6

Appendix 23: Bisphenols	Short form	CAS No.
Bisphenol-A (BPA)	BPA	80-05-7
Bisphenol S (BPS)	BPS	80-09-1
Bisphenol B (BPB)	BPB	77-40-7
Bisphenol F (BPF)	BPF	620-92-8
Bisphenol AF (BPAF)	BPAF	1478-61-1

Appendix 24: Mercury compounds	CAS No.
Phenylmercury acetate	62-38-4
Phenylmercury neodecanoate	26545-49-3
Phenylmercury octanoate	13864-38-5
Phenylmercury propionate	103-27-5
Phenylmercury 2-ethylhexanoate	13302-00-6

Appendix 25: Navy Blue	CAS No.
Navy Blue	118685-33-9