Miroglio
Fashion

PRODUCT RESTRICTED SUBSTANCES LIST

VERSION APRIL 2018

Miroglio Fashion s.r.l.

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	

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	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Formaldehyde (free and extractable)		≤ 75 mg/kg	EN ISO 14184-1 – GB/T 2912.1	16 mg/kg
pH Value of acqueus extract		pH 4,0 ÷ 8,5	EN ISO 3071 - GB/T 7573	=
Azo Dyes from which arylamines can be split off under reductive conditions	(*)(**)	Detox: since 2014/09 Not detectable (≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 20 ppm	UNI EN 14362-1,3 GB/T 17592.1 GB/T 23344	1 mg/kg
Dye: – "Navy Blu"	(**)	Detox: since 2014/09 Not detectable (≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 20 ppm	EPA 3510C:1996 + EPA 8321B:2007 (rif. DIN 54231-2005)	1 mg/kg
Carcinogenic Dyes	(*)(**)	Detox: since 2014/09 Not detectable(≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 20 ppm	EN ISO 16373-3	1 mg/kg
Allergenic Disperse Dyes	(*)(**)	Detox: since 2014/09 Not detectable(≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 20 ppm	DIN 54231 - EN ISO 16373-2	1 mg/kg

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PARAMETER	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Lead (total amount)	(**)	Detox: since 2020 ≤ 100 mg/kg	EN 16711-1	1 mg/kg
Cadmium (total amount)	(**)	Detox: since 2020 ≤ 100 mg/kg	EN 16711-1	1 mg/kg
Arsenic (total amount) (Only wodden components)	(**)	Detox: since 2020 ≤ 1 mg/kg	Acid Digestion (Microwave) – ICP-MS – Ref. EN ISO 17294-2	1 mg/kg
Chlorophenols: Pentachlorophenol (PCP) Tetrachlorofphenols (TeCP) Trichlorofphenols (TriCP)	(*)(**)	Detox: since 2014/09 Not detectable (≤ 0,05 mg/kg)	UNI 11057 US EPA 8081 A	0,05 mg/kg
Ortho-phenilphenol (OPP)		≤ 100 mg/kg	Extraction with organic solvent - GC-MS	1 mg/kg
Biocides	(*)	≤ 1,0 mg/kg (sum) (PCP; TeCP excluded)	US EPA 8081 - Mod. Chromatographic Test Methods	0,05 mg/kg
Chlorinated Organic Carriers (Chlorobenzene-Chlorotoluene)	(*)(**)	Detox: since 2014/09 ≤ 0,5 mg/kg (sum)	DIN 54232	0,05 mg/kg
Nonylphenols (NP) Octylphenols (OP)	(*)(**)	Detox: since 2015/07 ≤ 1 mg/kg (sum) Recycled Content Maximum contamination limit (sum)= 100 ppm	Refer to ISO 18857-1	0,1 mg/kg
Nonylphenolethoxylates (NPEO) Octylphenolethoxylates (OPEO)	(*) (**)	Detox: since 2015/07 ≤ 1 mg/kg (sum) Recycled Content Maximum contamination limit (sum)= 250 ppm	ISO 18254 -1	0,1 mg/kg

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PARAMETER	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Perfluorinated Compounds (PFC)	(*) (**)	Detox: since 2016/07 ≤ 1 microg/m^2 (total - FTOH) ≤ 0,1 microg/m^2 (total – altri PFC)	CEN / TS 15968	0,1 µg/m^2 (FTOH) 0,01 µg/m^2 (altri PFC)
Organotin compounds:	(**)	Detox: since 2014/09 ≤ 0,1 mg/kg (sum)	ISO / TS 16179	0,05 mg/kg
Brominated and Chlorinated Flame Retardants	(*) (**)	Detox: since 2014/09 ≤ 1 mg/kg (sum)	GB/T 24279 - ISO 17881-1-2 - Extraction with organic solvent - Analysis by: GC-MS; GC-ECD; LC-MS;	0,1 mg/kg
Short chained chloroparaffines: (SCCPs : C_{10}-C_{13})	(**)	Detox: since 2014/09 ≤ 1 mg/kg	ISO 18219	0,1 mg/kg
Polycyclic Aromatic Hydrocarbons (IPA – PAH) (Applied to synthetic fibers only)	(*)	Benzo [α] pirene ≤ 1,0 mg/kg (sum): ≤ 10,0 mg/kg	ZEK 01.4-08 - AfPS GS 2014:01 ISO TS 16190	0,05 mg/kg
Dimethylfumarate		≤ 0,1 mg/kg	ISO/TS 16186	0,01 mg/kg
Chlorinated solvents (Perchlorethylene excluded)	(*)(**)	Detox: since 2014/09 ≤ 1 mg/kg	GB 19340 Extraction HS - SPME or Purge &Trap – GCMS" ISO/TS 16189	0,1 mg/kg
Perchloroethylene		Detox: since 2020/12 ≤1 mg/kg	GB 19340 Extraction HS - SPME or Purge &Trap – GCMS" ISO/TS 16189	0,1 mg/kg
Other Solvents (VOCs)	(*)(**)	Detox: since 2020/12 Not detectable	Extraction with organic solvent (ethylacetate) - Analysis by: GC-MS/MS	See Appendix

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PARAMETER **Heavy Metals (Extractables)**	**Notes**	**LIMIT VALUE (Adult) (mg/kg)** (Detox: since 2020)	**TEST METHOD**	**Detection Limit**
Antimony		≤ 30,0	Extractable Content: extraction with acid perspiration, refer to: EN 16711-2	3,00
Arsenic		≤ 1,0 (**)		0,02
Lead		≤ 1,0		0,02
Cadmium		≤ 0,1	GB/T17593-3 (**)Only for natural fibers	0,01
Chromium (total)		≤ 2,0		0,10
Chromium VI		≤ 3,0		3,00
Cobalt		≤ 4,0		0,10
Copper		≤ 50,0		2,50
Nickel		≤ 4,0		0,10
Mercury		≤ 0,02 (**)		0,01

Coated Fabric – Additional Requirements

PARAMETER (refers to the coating material)	**Notes**	**LIMIT VALUE (Adult)**	**TEST METHOD**	**Detection Limit**
Phthalates	(*)(**)	Detox: since 2014/09 ≤ 10 mg/kg (sum)	CPSC-CH-C1001-09.3	See Appendix
Lead – (total amount)		≤ 90 mg/kg	CPSC-CH-E-1003-09.1	1 mg/kg
Cadmium – (total amount)		≤ 100 mg/kg	EN 16711-1	1 mg/kg

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Coated Fabric – Additional Requirements for PVC

PARAMETER (refers to the coating material)	**Notes**	**LIMIT VALUE (Adult)**	**TEST METHOD**	**Detection Limit**
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

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LEATHER and FURS

PARAMETER	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Formaldehyde (free and extractable)		≤ 75 mg/kg	EN ISO 17226-1 – GB 20400: GB/T 19941	16 mg/kg
pH Value of acqueus extract		pH 3,2 7,5 (ΔpH ≤ 0,7)	EN ISO 4045	=
Chromium VI		≤ 3 mg/kg	EN ISO 17075 -1-2	3 mg/kg
Azo Dyes from which arylamines can be split off under reductive conditions	(*)(**)	Detox: since 2014/09 Not detectable (≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 30 ppm	EN ISO 17234-1,2 – GB 20400: GB/T 19942	1 mg/kg
Dye: – "Navy Blu"	(**)	Detox: since 2014/09 Not detectable (≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 30 ppm	EPA 3510C:1996 + EPA 8321B:2007 (ref. DIN 54231-2005)	1 mg/kg
Carcinogenic Dyes	(*)(**)	Detox: since 2014/09 Not detectable (≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 30 ppm	EN ISO 16373-3	1 mg/kg
Allergenic Disperse Dyes	(*)(**)	Detox: since 2014/09 (≤ 1 mg/kg) Recycled Content Maximum contamination limit (sum)= 30 ppm	DIN 54231 - EN ISO 16373-2	1 mg/kg

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PARAMETER	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Lead (total amount)	(**)	Detox: since 2020 ≤ 100 mg/kg ≤ 90 mg/kg (Patent leather)	EN ISO 17072-2	1 mg/kg
Cadmium (total amount)	(**)	Detox: since 2020 ≤ 100 mg/kg	EN ISO 17072-2	1 mg/kg
Chlorophenols: Pentachlorophenol (PCP) Tetrachlorofphenols (TeCP) Trichlorofphenols (TriCP)	(*)(**)	Detox: since 2014/09 Not detectable (≤ 0,05 mg/kg)	EN ISO 17070	0,05 mg/kg
Ortho-phenilphenol (OPP)		≤ 500 mg/kg	ISO 13365	1 mg/kg
Biocides	(*)	≤ 1,0 mg/kg (sum) (PCP; TeCP, TriCP excluded)	US EPA 8081 Mod. Chromatographic Test Methods	0,05 mg/kg
Chlorinated Organic Carriers (Chlorobenzene-Chlorotoluene)	(*)(**)	Detox: since 2014/09 ≤ 0,5 mg/kg (sum)	DIN 54232	0,05 mg/kg
Nonylphenols (NP) Octylphenols (OP)	(*)(**)	Detox: since 2015/07 ≤ 1 mg/kg (sum) Recycled Content Maximum contamination limit (sum)= 100 ppm	Extraction with organic solvent - Analysis by GC-MS. refer to ISO 18857-1	0,1 mg/kg
Nonylphenolethoxylates (NPEO) Octylphenolethoxylates (OPEO)	(*) (**)	Detox: since 2015/07 ≤ 1 mg/kg (sum) Recycled Content Maximum contamination limit (sum)= 250 ppm	Extraction with organic solvent - Analysis by LC-MS. ISO 18218-1	0,1 mg/kg
Phthalates	(*)(**)	Detox: since 2014/09 ≤ 10 mg/kg (sum)	CPSC-CH-C1001-09.3	See Appendix

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PARAMETER	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Perfluorinated Compounds (PFC)	(*) (**)	Detox: since 2016/07 ≤ 1 microg/m^2 (total - FTOH) ≤ 0,1 microg/m^2 (total – altri PFC)	CEN/TS 15968	0,1 µg/m^2 (FTOH) 0,01 µg/m^2 (altri PFC)
Organotin compounds:	(**)	Detox: since 2014/09 ≤ 0,1 mg/kg (sum)	ISO / TS 16179	0,05 mg/kg
Brominated and Chlorinated Flame Retardants	(*) (**)	Detox: since 2014/09 ≤ 1 mg/kg (sum)	Extraction with organic solvent - Analysis by: GC-MS; GC-ECD; LC-MS - GB/T 24279	0,1 mg/kg
Short chained chloroparaffines: (SCCPs : C_{10}-C_{13})	(**)	Detox: since 2014/09 ≤ 1 mg/kg	ISO 18219	0,1 mg/kg
Polycyclic Aromatic Hydrocarbons (IPA – PAH) (Applied to synthetic fibers only)	(*)	Benzo [α] pirene ≤ 1,0 mg/kg (sum): ≤ 10,0 mg/kg	ZEK 01.4-08 - AfPS GS 2014:01 ISO TS 16190	0,05 mg/kg
Dimethylfumarate		≤ 0,1 mg/kg	ISO/TS 16186	0,01 mg/kg
Chlorinated solvents (Perchlorethylene excluded)	(*)(**)	Detox: since 2014/09 ≤ 1 mg/kg	GB 19340 Extraction HS - SPME or Purge &Trap – GCMS" ISO/TS 16189	0,1 mg/kg
Perchloroethylene		Detox: since 2020/12 ≤1 mg/kg	GB 19340 Extraction HS - SPME or Purge &Trap – GCMS" ISO/TS 16189	0,1 mg/kg
Other Solvents (VOCs)	(*)(**)	Detox: since 2020/12 Not detectable	Extraction with organic solvent (ethylacetate) - Analysis by: GC-MS/MS	See Appendix

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PARAMETER **Heavy Metals (Extractables)**	**Notes**	**LIMIT VALUE (Adult) (mg/kg)** (Detox: since 2020)	**TEST METHOD**	**Detection Limit**
Antimony		≤ 30,0	Extractable Content: extraction with acid perspiration, refer to: EN ISO EN ISO 17072-1 Cr(VI) EN ISO 17075-1-2	3,00
Arsenic		≤ 1,0 (**)		0,02
Lead		≤ 1,0		0,02
Cadmium		≤ 0,1		0,01
Chromium (total)		≤ 2,0		0,10
Chromium VI		≤ 3,0		3,00
Cobalt		≤ 4,0		0,10
Copper		≤ 50,0		2,50
Nickel		≤ 4,0		0,10
Mercury		≤ 0,02 (**)		0,01

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PLASTIC ACCESSORIES

PARAMETER	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Phthalates:	(*)(**)	Detox: since 2014/09 ≤10 mg/kg	CPSC-CH-C1001-09.3	See Appendix
Lead – (total amount)	(**)	≤ 100 mg/kg ≤ 90 mg/kg (painted acc.)	Microwave digest.; ICP-MS/OES CPSC-CH-E-1002-08.3 CPSC-CH-E-1003-09.1 (painted)	1 mg/kg
Cadmium – (total amount)	(*)	≤ 100 mg/kg	EN 1122	1 mg/kg
Dioxin and Furans	(*) (**)	≤ 1 - 100 mg/kg (sum)	Extraction with solvent - Analysis by GC-MS	See Appendix
Polycyclic Aromatic Hydrocarbons (IPA-PAH)	(*) (**)	Benzo [a] pirene ≤ 1,0 mg/kg (sum): ≤ 10,0 mg/kg	AfPS GS 2014:01 PAK	0,05 mg/kg
Organotin compounds:	(*)(**)	Detox: since 2014/09 ≤ 0,01 mg/kg (sum)	ISO / TS 16179	0,05 mg/kg

PARAMETER Solvents	Notes	LIMIT VALUE (Adult) (mg/kg)	TEST METHOD	Detection Limit
Dimethylfumarate		≤ 0,1 mg/kg	ISO/TS 16186	0,01 mg/kg
Chlorinated solvents (Perchlorethylene excluded)	(*)(**)	Detox: since 2014/09 ≤ 1 mg/kg	GB 19340:2003 "Extraction HS - SPME or Purge &Trap and Analysis by GC-MS	0,1 mg/kg
Perchloroethylene		Detox: since 2020/12 ≤1 mg/kg	GB 19340:2003 "Extraction HS - SPME or Purge &Trap and Analysis by GC-MS	0,1 mg/kg
Other Solvents (VOCs)	(*)(**)	Detox: since 2020/12 Not detectable	Extraction with organic solvent (ethylacetate) - Analysis by: GC-MS/MS	See Appendix

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PLASTIC ACCESSORIES – Additional Requirements for PVC

PARAMETER (refers to the coating material)	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
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)	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Nickel (released from metal accessories in direct contact with skin)		≤ 0.5 µg/cm²/week (direct and prolonged contact with skin) ≤ 0.2 µg/cm²/week (only for piercing)	EN 12471 (preliminary test) EN 12472:2009 – EN 1811 :2011- GB/T 19719 – GB/T 28485	0,1 µg/cm2/week
Lead – (total amount)		≤ 100(3) mg/kg - ≤ 300(12 mg/kg) ≤ 90(2) mg/kg (acc. verniciati) ≤ 1000(6) mg/kg	Microwave digest; ICP-MS/OES CPSC-CH-E-1001-08.3 CPSC-CH-E-1003-09.1 (painted) GB/T 28021	1 mg/kg
Cadmium – (total amount)		≤ 100(4) mg/kg ≤ 1000(6) mg/kg	Microwave digestion ; ICP-MS/OES CPSC-CH-E-1001-08.3-GB/T 28021	1 mg/kg
Mercury – (total amount)		≤ 1000 mg/kg	Microwave digestion; ICP-MS/OES GB/T 21198-6 - GB/T 28021	0,1 mg/kg

PARAMETER (refers to the coating material)	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Arsenic – (total amount)		≤ 1000 mg/kg	Microwave digestion; ICP-MS/OES GB/T 21198-6 - GB/T 28021	1 mg/kg
Chromium VI – (total amount)		≤ 1000 mg/kg	Microwave digestion GB/T 28019	3 mg/kg

GLASS AND CRYSTAL ACCESSORIES

PARAMETER	Notes	LIMIT VALUE (Adult)	TEST METHOD	Detection Limit
Lead – (total amount)		≤ 100[3] mg/kg ≤ 90[2] mg/kg (painted acc.)	CPSC-CH-E-1002-08.3 CPSC-CH-E-1003-09.1 (painted)	1 mg/kg
Cadmium – (total amount)		≤ 100 mg/kg	Microwave digest; ICP-MS/OES CPSC-CH-E-1002-08.3	1 mg/kg

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FOOTWEAR – RUBBER SHOES

Field of application	PARAMETER: Healthy and safe properties	Note	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	(*)(**)	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
Rubber components	N-nitrosamines	(*)	≤ 0.5	GB/T 24153	≤ 0.5
Lining and insocks (staining)	Color fastness to rubbing		≥ 2/3	QB/T 2882	=

Notes

(*) = individual substances are listed in appendix "Individual substances"
(**) = Detox Commitment

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APPENDIX: Individual Substances

AZO DYES - Forbidden Arylamines - (Detox Commitment)	Index Nr.	CAS Nr
Biphenyl-4-ylamin ; 4-aminobiphenyl ; xenylamine	612-072-00-6	92-67-1
Benzidine	612-042-00-2	92-87-5
4-chloro-o-toluidine		95-69-2
2-naphtylamine	612-022-00-3	91-59-8
o-aminoazotoluene ; 4-amino-2',3-dimethylazobenzene ; 4-o-tolylazo-otoluidine	611-006-00-3	97-56-3
5-nitro-o-toluidine		99-55-8
4-chloroaniline		106-47-8
4-methoxy-m-phenylenediamine		615-05-4
4,4'-methylenedianiline ; 4,4'-diaminodiphenylmethane	612-051-00-1	101-77-9
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'-methylenedi-o-toluidine	612-085-00-7	838-88-0
6-methoxy-m-toluidine ; p-cresidine		120-71-8
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
o-toluidine ; 2-aminotoluene	612-091-00-X	95-53-4
4-methyl-m-phenylenediamine	612-099-00-3	95-80-7
2,4,5-trimethylaniline		137-17-7
o-anisidine ; 2-methoxyaniline	612-035-00-4	90-04-0
4-amino azobenzene	611-008-00-4	60-09-3
2,4 xilidina		95-68-1
2,6 xilidina		87-62-7

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Carcinogenic Dyes - (Detox Commitment)	C.I. Nr	CAS Nr
C.I. Acid Red 26	C.I. 16 150	3761-53-3
C.I. Basic Red 9	C.I. 42 500	569-61-9
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 Red 28	C.I. 22 120	573-58-0
C.I. Basic Violet 14	C.I. 42 510	632-99-5
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 Orange 11	C.I. 60700	82-28-0
C.I. Disperse Yellow 23 (*)	C.I. 26 070	6250-23-3
C.I. Disperse Orange 149 (*)		85136-74-9
C.I. Disperse Orange 149		85136-74-9
C.I. Solvent Yellow 1		60-09-3
C.I. Solvent Yellow 2		60-11-7
C.I. Solvent Yellow 3		97-56-3
C.I. Solvent Yellow 14		842-07-9
C.I. Basic Blue 26		2580-56-5
C.I. Basic Violet 1		8004-87-3

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 35		12222-75-2
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 76/37		12223-33-5
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 39		12236-29-2
C.I. Disperse Yellow 49		54824-37-2

Chlorophenols - (Detox Commitment)	CAS Nr
Pentachlorophenol (PCP)	87-86-5
Tetrachlorophenols (TeCP)	25167-83-3
2,3,4,5-Tetrachlorophenol	4901-51-3
2,3,4,6-Tetrachlorophenol	58-90-2
2,3,5,6-tetrachlorophenol	935-95-5
Trichlorophenol (TriCP)	25167-82-2
2,4,6-trichlorophenol	88-06-2
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
3,4,5-trichlorophenol	609-19-8
Dichlorophenols (DiCP)	25167-81-1
2,3-dichlorophenol	576-24-9
2,4-dichlorophenol	120-83-2
2,5-dichlorophenol	583-78-8
3, 4-dichlorophenol	95-77-2
3, 5-dichlorophenol	591-35-5
Mono Chlorophenol	various

Chlorinated Organic Carriers (Chlorobenzene-Chlorotoluene) - (Detox Commitment)	CAS Nr
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Trichlorobenzenes	various
1,2,3-Trichlorobenzene	87-61-6
1,2,4-trichlorobenzene	120-82-1
1,3,5-Trichlorobenzene	108-70-3
Tetrachlorobenzene	12408-10-5
1,2,3,4-tetrachlorobenzene	634-66-2

1,2,3,5-tetrachlorobenzene	634-90-2
1,2,4,5-tetrachlorobenzene	95-94-3
Pentachlorobenzene	608-93-5
Hexachlorobenzene	118-74-1
2-chlorotoluene	95-49-8
3-chlorotoluene	108-41-8
4-chlorotoluene	106-43-4
2,3-dichlorotoluene	32768-54-0
2,4-dichlorotoluene	95-73-8
2,5-dichlorotoluene	19398-61-9
2,7-dichlorotoluene	118-69-4
3,4-dichlorotoluene	95-75-0
2,3,6-trichlorotoluene	2077-46-5
2,4,5-trichlorotoluene	6639-30-1
Benzotrichloride	98-07-7
alfa, 2,4-trichlorotoluene	94-99-5
alfa,2,6-trichlorotoluene	2014-83-7
alfa,3,4-trichlorotoluene	102-47-6
alpha, alpha, 2,6- tetrachlorotoluene	81-19-6
alpha, alpha, alpha, 2, - tetrachlorotoluene	2136-89-2
alpha, alpha, alpha, 4- tetrachlorotoluene	5216-25-1
2,3,4,5,6-pentachlorotoluene	877-11-2

Biocides - (Detox Commitment)	CAS Nr
Azinophosmethyl	86-50-0
Azinophosetyl	2642-71-9
Aldrine	309-00-2
Bromophos-ethyl	4824-78-6
Carbaryl	63-25-2
Chlordane	57-74-9
Chlordimeform	164-98-3

Biocides - (Detox Commitment)	CAS Nr
Methoxychlor	72-43-5
Mirex	2385-85-5
Monocrotophos	6923-22-4
Parathion	56-38-2
Parathion-methyl	298-00-0
Propethamphos	31218-83-4
Profenophos	41198-08-7

Coumaphos	56-72-4	Quinalphos	13593-03-8
Cyfluthrin	68359-37-5	Toxaphen (Camphechlor)	8001-35-2
Cyhalothrin	91465-08-6	Trifluralin	1582-09-8
Cypermethrin	52315-07-8	2,4,5-T	93-76-5
DEF	87-48-8	2,4-D	94-75-7
Deltamethrin	52918-63-5	Captafol	2425-06-1
DDD	53-19-0, 72-54-8	Chlorphenvinphos	470-90-6
DDE	3424-82-6, 72-55-9	Dichlorprop	120-36-5
DDT	50-29-3, 789-02-6	Dinoseb und salts	88-85-7
Diazinon	333-41-5	MCPA	94-74-6
Dicrotophos	3735-78-3	MCPB	94-81-5
Dieldrine	60-57-1	Mecroprop	93-65-2
Dimethoate	60-51-5	Phosdrin / Mevinphos	7786-34-7
α-Endosulfan	959-98-8	Metamidophos	10265-92-6
β- Endosulfan	33213-65-9	Malathion	121-75-5
Endrine	72-20-8		
Esfenvalerat	66230-04-4		
Fenvalerate	51630-58-1		
Heptachlor	76-44-8		
Heptachlorepoxide	1024-57-3		
Hexachlorobenzene	118-74-1		
α-Hexaclorcyclohexane	319-84-6		
β- Hexaclorcyclohexane	319-85-7		
δ- Hexaclorcyclohexane	319-86-8		
Lindane (g-HCH)	58-89-9		

Nonylphenols (NP) - Octylphenols (OP) - (Detox Commitment)	CAS Nr
Octylphenol OP	Various
4-(1,1,3,3-Tetramethylbutyl)-phenol	140-66-9
OctylPhenol	27193-28-8
4-Octylphenol	1806-26-4
Nonylphenol NP	Various
4-Nonylphenol	25154-52-3
Nonylphenol	104-40-5
Nonylphenol	90481-04-2
4-Nonylphenol (branched)	84852-15-3
Nonylphenol	1173019-62-9

Nonylphenolethoxylates (NPEO) - Octylphenolethoxylates (OPEO) - (Detox Commitment)	CAS Nr
Nonylphenol Ethoxylates NPEO (1-2)	Various
Nonylphenol Ethoxylates NPEO (3-18)	Various
(Nonylphenoxy)-polyethylenoxid	9016-45-9
4-Nonylphenol, ethoxylated	26027-38-3
(NPEs 3-18) Poly(oxy-1,2-ethanediyl),	68412-54-4
4-Nonylphenol, branched, ethoxylated	127087-87-0
Unbekanntes Farbmittel 94 (SIN list)	37205-87-1
Octylphenol Ethoxylates OPEO (1-2)	Various
Octylphenol Ethoxylates OPEO (3-18)	Various
(OPEs 3-18) alpha-[4-(1,1,3,3-	9002-93-1
4-tert-Octylphenolethoxylate	9036-19-5
4-tert-Octylphenolethoxylate	68987-90-6

Perfluorinated Compounds - (Detox Commitment)	**Short Form**	**CAS Nr**
Short Chain Perfluoro Compounds		
Perfluorbutansulfonic acid	(PFBS)	29420-49-3 / 375-73-5
Perfluorohexane sulfonic acid	(PFHxS)	3871-99-6 / 355-46-4
Perfluoro 1-heptanesulphonic acid	(PFHpS)	375-92-8 / 60270-55-5
Perfluorobutanoic acid	(PFBA)	375-22-4
Perfluoropentanoic acid	(PFPeA)	2706-90-3
Perfluoro n-hexanoic acid	(PFHxA)	307-24-4
Perfluoro n-heptanoic acid	(PFHpA)	375-85-9
7H-Perfluoroheptanoic acid	(HPFHpA)	1546-95-8
4:2 Fluorotelomer sulfonate	(FTOH 4-2)	2043-47-2
6:2 Fluorotelomer sulfonate	(FTOH 6-2)	647-42-7
Long Chain Perfluoro Compounds		
Perfluorooctane sulfonic acid	(PFOS)	2795-39-3 / 1763-23-1
Perfluorodecane sulfonic acid	(PFDS)	13419-61-9 / 335-77-3
Perfluorooctane-sulfonamide	(PFOSA)	754-91-6
Perfluoro n-octanoic acid	(PFOA)	335-67-1
Perfluoro n-nonanoic acid	(PFNA)	375-95-1
Perfluoro n-decanoic acid	(PFDA)	335-76-2
Perfluoroundecanoic acid	(PFUnA)	2058-94-8 / 4234-23-5
2H,2H,3H,3H-Perfluoroundecanoic acid	(HPFUnA)	34598-33-9
Perfluorododecanoic acid	(PFDoA)	307-55-1
Perfluorotridecanoic acid	(PFTrA)	72629-94-8
Perfluorotetradecanoic acid	(PFTA)	376-06-7
Perfluoro-3,7-dimethyloctanoic acid	(H2PFDA)	172155-07-6
1H,1H,2H,2H Perfluorooctane sulfonic acid	(H4PFOS 6-2)	27619-97-2
1H,1H,2H,2H-Perfluorooctyl acrylate	(FTA 6-2)	17527-29-6
1H,1H,2H,2H-Perfluorodecyl acrylate	(FTA 8-2)	27905-45-9
1H,1H,2H,2H-Perfluorododecyl acrylate	(FTA 10-2)	17741-60-5
8:2 Fluorotelomer sulfonate	(FTOH 8-2)	678-39-7
10:2 Fluorotelomer sulfonate	(FTOH 10-2)	865-86-1
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol	(N-MeFOSE)	24448-09-7

2-(N-Ethylperfluoro-1-octanesulfonamido)-ethanol	(N-EtFOSE)	1691-99-2
N-methylperfluoro-1-octanesulfonamide	(N-MeFOSA)	31506-32-8
N-ethylperfluoro-1-octanesulfonamide	(N-EtFOSA)	4151-50-2

Organotin compounds	**Short Form**	**(Detox Commitment [*])**	**CAS Nr**
Dibutilyn	(DBT)	[*]	1002-53-5
Dimethyltin	(DMT)		NA
Monobutylin	(MBT)	[*]	1118-46-3
Monooctylin	(MOT)	[*]	15231-44-4
Dioctylin	(DOT)	[*]	94410-05-6
Tricyclohexyltin	(TCyHT)	[*]	NA
Trioctylin	(TOT)		NA
Tripropyltin	(TPT)	[*]	668-34-8
Trimethyltin	(TMT)		NA
Triphenyltin	(TPhT)	[*]	892-20-6
Tetrabutylin	(TebT)	[*]	1461-25-2
Tributyltin	(TBT)	[*]	56573-85-4
Monomethylin	(MMT)		NA
Monophenyltin	(MPT)		NA
Diphenyltin	(DPT)	[*]	1011-95-6
Tetraethyltin	(TeET)	[*]	597-64-8
Tributyltin Oxide	(TBTO)	[*]	56-35-9
	(DBTC)	[*]	683-18-1

Flame Retardants -	**Short Form**	**(Detox Commitment [*])**	**CAS Nr**
Polybrominated biphenyls	(PBBs)	[*]	59536-65-1
Monobromo biphenyls	(MonoBB)	[*]	Various
Dibromo biphenyls	(DiBB)	[*]	Various
Tribromo biphenyls	(TriBB)	[*]	Various
Tetrabromo biphenyls	(TetraBB)	[*]	Various
Pentabromo biphenyls	(PentaBB)	[*]	Various
Hexabromo biphenyls	(HexaBB)	[*]	Various
Heptabromo biphenyls	(HeptaBB)	[*]	Various
Octabromo biphenyls	(OctaBB)	[*]	Various
Nonabromo biphenyls	(NonaBB)	[*]	Various
Decabromo biphenyl	(DecaBB)	[*]	13654-09-6
Polybrominated diphenyl ethers	(PBDEs)	[*]	Various
Monobromo diphenyl ethers	(MonoBDE)	[*]	Various
Dibromo diphenyl ethers	(DiBDE)	[*]	Various
Tribromo diphenyl ethers	(TriBDE)	[*]	Various
Tetrabromo diphenyl ethers	(TetraBDE)	[*]	40088-47-9
Pentabromo diphenyl ethers	(PentaBDE)	[*]	32534-81-9
Hexabromo diphenyl ethers	(HexaBDE)	[*]	36483-60-0
Heptabromo diphenyl ethers	(HeptaBDE)	[*]	68928-80-3
Octabromo diphenyl ethers	(OctaBDE)	[*]	32536-52-0
Nonabromo diphenyl ethers	(NonaBDE)	[*]	63936-56-1
Decabromo diphenyl ethers	(DecaBDE)	[*]	1163-19-5
Bis(2,3-dibromopropyl)phosphate	(BIS) or (BBP)	[*]	5412-25-9
Tris(2-chloroethyl)phosphate	(TCEP)	[*]	115-96-8
Hexabromocyclodecane	(HBCDD)	[*]	3194-55-6 134237-50-6, 134237-51-7, 134237-52-8, 25637-99-4,
Tetrabromobisphenol A	(TBBPA)	[*]	79-94-7
Tris(1-aziridinyl)phosphine oxide	(TEPA)	[*]	5455-55-1

Tris(2,3,-dibromopropyl)- phosphate Sodium tetraborate	(TRIS)	[*] [*]	126-72-7 1303-96-4 1303-43-4 12179-04-3 215-540-4
Boron trioxide		[*]	1303-86-2
Boric acid		[*]	10043-35-3 11113-50-1
Antimony trioxide		[*]	1309-64-4
Tri-o-cresyl phosphate		[*]	78-30-8
2,2-bis(bromomethyl)-1,3-propanediol	(BBMP)		3296-90-0
Tris(1,3-dichloro-isopropyl) phosphate	(TDCP)		13674-87-8
Bis (2,3-dibromopropylether) of tetrabromobisphenol	(BDBPT)		21850-44-2

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Dioxin and Furans	CAS Nr	**Group**	**Limit** (µg/kg)
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	**1**	≤ 1
1,2,3,7,8-Pentachloro-dibenzo-pdioxin	40321-76-4		
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9		
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4		
1,2,3,4,7,8-Hexachloro-dibenzo-pdioxin	39227-28-6	**2**	≤ 5
1,2,3,7,8,9-Hexachloro-dibenzo-pdioxin	19408-74-3		
1,2,3,6,7,8-Hexachloro-dibenzo-pdioxin	57653-85-7		
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6		
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9		
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9		
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5		
1,2,3,4,6,7,8-Heptachloro-dibenzo-pdioxin	35822-46-9	**3**	≤ 100
1,2,3,4,6,7,8,9-Octachlorodibenzo-pdioxin	3268-87-9		
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4		
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0		
2,3,7,8-Tetrabromodibenzo-p-dioxin	50585-41-6	**4**	≤ 1
1,2,3,7,8-Pentabromo-dibenzo-pdioxin	109333-34-8		
2,3,7,8-Tetrabromodibenzofuran	67733-57-7		
2,3,4,7,8-Pentabromodibenzofuran	131166-92-2		
1,2,3,4,7,8-Hexabromo-dibenzo-pdioxin	110999-44-5	**5**	≤ 5
1,2,3,7,8,9-Hexabromo-dibenzo-pdioxin	110999-46-7		
1,2,3,6,7,8-Hexabromo-dibenzo-pdioxin	110999-45-6		
1,2,3,7,8-Pentabromodibenzofuran	107555-93-1		

Polycyclic Aromatic Hydrocarbons (IPA – PAH) - (Detox Commitment)	CAS Nr
Acenaphtene	83-32-9
Acenaphtylene	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[ghi]perylene	191-24-2
Benzo[k]fluoranthene	207-08-9
Chrysene	218-01-9
Dibenz[a,h]anthracene	53-70-3
Fluoranthene	206-44-0
Fluorene	86-73-7
Indeno[1,2,3-cd]pyrene	193-39-5
Naphtalene	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Chlorinated solvents - (Detox Commitment)	**CAS Nr**
Dichloromethane	75-09-2
Chloroform	67-66-3
Tetrachloromethane	56-23-5
1,1,2-Trichloroethane	79-00-5
1,1-Dichloroethane	75-34-3
1,2-Dichloroethane	107-06-2
Trichloroethylene	79-01-6
Perchloroethylene	127-18-4
1,1,1-trichloroethane	71-55-6
1,1,1,2-Tetrachloroethane	630-20-6
1,1,2,2-Tetrachloroethane	79-34-5
Pentachloroethane	76-01-7
1,1-Dichloroethylene	75-35-4

Other Solvents (VOCs) - (Detox Commitment)	**CAS Nr**	**Detection Limit** (mg/kg)
Methyl-ethyl ketone	78-93-3	0,1 mg/kg
Benzene	71-43-2	0,1 mg/kg
Toluene	108-88-3	0,1 mg/kg
Ethylbenzene	100-41-4	0,1 mg/kg
Xylene	1330-20-7	0,1 mg/kg
Styrene	100-42-5	0,1 mg/kg
Cyclohexanone	108-94-1	2 mg/kg
2-ethoxyethylacetate	111-15-9	10 mg/kg
1,2,3-trichloropropane	96-18-4	10 mg/kg
Acetophenone	98-86-2	1 mg/kg
Naphtalene	91-20-3	0,1 mg/kg
N,N-dimethylformamide	68-12-2	1 mg/kg
1-methyl-2-pyrrolidone	872-50-4	50 mg/kg
2-phenyl-2-propanole	617-94-7	1 mg/kg
Bis-(2-methoxyethyl) ether	111-96-6	20 mg/kg
N,N-dimethylacetamide	127-19-5	20 mg/kg

Phthalates		**Short form**	**(Detox Commitment: [*])**	**CAS Nr**	**Detection Limit (mg/kg)**
1	Diisobutyl phthalate	DIBP	[*]	84-69-5	1 mg/kg
2	Dibutyl phthalate	DBP	[*]	84-74-2	1 mg/kg
3	BenzylButyl phthalate	BBP	[*]	85-68-7	1 mg/kg
4	Di(ethylhexil) phthalate	DEHP	[*]	117-81-7	1 mg/kg
5	Di(n-octyl) phthalate	DNOP	[*]	117-84-0	5 mg/kg
6	Diisononyl phthalate	DINP	[*]	28553-12-0	1 mg/kg
7	Diisodecyl phthalate	DIDP		26761-40-0	5 mg/kg
8	1,2-benzendicarboxilic acid, di C6-8 branched alkyl esters C7 rich	DIHP	[*]	71888-89-6	5 mg/kg
9	1,2-benzendicarboxilic acid, di C7-11 branched and linear alkyl esters C7 rich	DHNUP	[*]	68515-42-4	5 mg/kg
10	Dipentyl phtalate	DPP	[*]	131-18-0	1 mg/kg
11	Di-n-hexyl phthalate	DHP		84-75-3	1 mg/kg
12	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear			84777-06-0	5 mg/kg
13	Di-iso-pentyl phthalate	DIPP		605-50-5	1 mg/kg
14	N-pentyl-iso-pentyl phthalate	PIPP - NPIPP		776297-69-9	5 mg/kg
15	Bis(2-methoxyethyl) phthalate	DMEP	[*]	117-82-8	1 mg/kg
16	Di-n-hexyl phthalate	DnHP	[*]	84-75-3	5 mg/kg
17	Dinonyl phthalate	DNP		84-76-4	5 mg/kg
18	Diethyl phthalate	DEP		84-66-2	1 mg/kg
19	Di-n-propyl phthalate	DPRP		131-16-8	5 mg/kg
20	Di-cyclohexyl phthalate	DCHP		84-61-7	5 mg/kg
21	Di-iso-octyl phthalate	DIOP		27554-26-3	5 mg/kg
22	Dimethyl phthalate	DMP		131-11-3	5 mg/kg

N-nitrosamines - (Detox Commitment)	**Short form**	**(Detox Commitment: [*])**	**CAS Nr**
N-nitrosodimethylamine	(NDMA)	[*]	62-75-9
N-nitrosodiethylamine	(NDEA)	[*]	55-18-5
N-nitrosodipropylamine	(NDPA)	[*]	621-64-7
N-nitrosodibutylamine	(NDBA)	[*]	924-16-3
N-nitrosopiperidine	(NPIP)	[*]	100-75-4
N-nitrosopyrrolidine	(NPYR)	[*]	930-55-2
N-nitrosomorpholine	(NMOR)	[*]	59-89-2
N-nitroso-N-methylaniline	(NMPhA)	[*]	614-00-6
N-nitroso-N-ethylaniline	(NEPhA)	[*]	612-64-6