



Product Restricted Substances List

Version 5.0 – January 2018



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Purpose

The ECCO Product Restricted substances list (PRSL) list (formerly known as RCS list) describes chemical restrictions for materials and components* supplied to ECCO. The list is developed and maintained based on applicable legislation and customer requirements.

The PRSL provides a comprehensive overview about:

- hazardous substances which are actually prohibited or restricted
- specific threshold limit value per substance
- materials which are affected by certain hazardous substances and therefore need to be tested
- reference test method (it is of high importance to use required test method and sample preparation where mentioned, as this has an essential impact on the test result)

In ECCO, we expect our suppliers and test institutes to supply and test materials in compliance with this PRSL. ECCO accepts ISO/IEC 17025:2005 certified test institutes. Lab staff/test method must be internationally accredited before conducting test. Supplier are to ensure test institutes are using the most recent PRSL and latest test method is always used

Beside this PRSL, materials supplied to ECCO shall also be tested and in compliance, concerning restricted substances set forth in any legislation around the World including but not limited to the following:

- REACH regulation (EC) No.1907/2006 including all amendments
- The US Consumer Product Safety Improvement Act (CPSIA) and

The Safe Drinking Water and Toxic Enforcement Act of 1986 in California (Proposition 65)

ECCO accepts ISO/IEC 17025:2005 certified test institutes. All test methods internationally accredited before conducting test.

Definitions:

Not detected: The substance must not be present in the material or component at concentration above the detection limit for the test

Concentration limit: The substance must not be present in the material or component at concentration above this limit

*Components supplied to ECCO need to comply with ECCO PRSL as well and therefore it might be necessary to test according to several corresponding material groups

In the PRSL the following signs are used.

X = Compliance is to be documented with test report

O = Compliance is to be documented with certificate of compliance

Chemical concentration limits

1. Leather

	Substance	CAS no	Concentration limit	Test method
X	Azo dyes	See appendix 1	≤ 20 ppm	ISO 17234-1 ISO 17234-2 (4-Aminobenzene)
X	Pentachlorophenol (PCP)	87-86-5	< 0.5 ppm	ISO 17070
X	Tetrachlorophenols (TeCP) each isomer 2,3,4,5 Tetrachlorophenol 2,3,4,6 Tetrachlorophenol 2,3,5,6 Tetrachlorophenol	4901-51-3 58-90-2 935-95-5	< 0.5 ppm	
X	Trichlorophenols (TriCP) each isomer 2,3,4 Trichlorophenol 2,3,5 Trichlorophenol 2,3,6 Trichlorophenol 2,4,5 Trichlorophenol 2,4,6 Trichlorophenol 3,4,5 Trichlorophenol	15950-66-0 933-78-8 933-75-5 95-95-4 88-06-2 609-19-8	< 0.5 ppm	
X	Chromium VI after ageing (CrVI)	18540-29-9	< 3 ppm	ISO 17075-1 Ageing condition: 24h at 80°C and < 5 % humidity
X	Formaldehyde	50-00-0	children under 36 months: < 16 ppm others: < 75 ppm	ISO 17226-1 or ISO 17226-2
X	Organotin compounds: Monobutyltin (MBT) Dibutyltin (DBT) Tributyltin (TBT) Diocetyltn (DOT) Triphenyltin (TPhT) Tri-substituted Organotins Bis (tributyl)tin (TBTO)	various various various various various various various	< 1 ppm each < 1 ppm each < 0.05 ppm each < 1 ppm each < 1 ppm each < 1 ppm each < 1 ppm each	ISO/TS 16179
X	Sum of soluble mineral tanning agents: Aluminum (Al) Chromium (Cr) Zirconium (Zr) Titanium (Ti)	7429-90-5 7440-47-3 7440-67-7 7440-32-6	Children under 36 months: < 50 ppm Others: < 200 ppm	ISO 17072-1
X	Antimony (Sb) - Soluble	7440-36-0	< 30.0 ppm	
X	Arsenic (As) - Soluble	7440-38-2	< 0.2 ppm	
X	Barium (Ba) - Soluble	744-39-3	< 1000 ppm	
X	Cadmium (Cd) - Soluble	7440-43-9	< 0.1 ppm	

	Substance	CAS no	Concentration limit	Test method
X	Cobalt (Co) – Soluble	7440-48-4	< 4.0 ppm	
X	Copper (Cu) - Soluble	7440-50-8	< 50 ppm	
X	Lead (Pb) – Soluble	7439-92-1	< 0.2 ppm	
X	Mercury (Hg) – Soluble	7439-97-6	< 0.02 ppm	
X	Nickel (Ni) – Soluble	7440-02-0	< 4.0 ppm	
X	Selenium (Se) - Soluble	7782-49-2	< 500 ppm	
X	Total Lead (Pb) (Substrate)	7439-92-1	< 90 ppm	CPSC-CH-E1002-08,3
X ¹	Total Lead (Pb) (Surface Coating)	7439-92-1	< 90 ppm	CPSC-CH-E1003-09,1
X	Total Cadmium (Cd)	7440-43-9	< 40 ppm	CPSC-CH-E1002-08,3
X ¹	Polycyclic aromatic hydrocarbons; 18 PAH (sum)	See appendix 7	< 10 ppm (sum)	AfPS GS 2014:01PAK
X ¹	Phthalates	See appendix 9	Sum: < 500 ppm	CPSC-CH-C1001-09.3
X ¹	Polyvinyl Chloride (PVC)	9002-86-2	Not detected	Beilstein Test/FTIR
X ²	Dimethyl fumarate (DMFu)	624-49-7	< 0.1 ppm	ISO/TS 16186
X ²	Triclosan	3380-34-5	Not detected	Solvent extraction GC-MS
X ³	Long chain perfluorinated and polyfluorinated chemicals (PFC's) – C8 and longer	See appendix 4	See appendix 4	CEN/TS 15968 Report both mass/area and mass/mass
X	Nonyl phenol (NP) Nonyl phenol Ethoxylates (NPEO) Octylphenol (OP) Octyl phenol Ethoxylates (OPEO)	See appendix 5	Sum NPEO+OPEO < 100 ppm Sum NP+OP < 100 ppm	ISO 18218-1
X	1-methyl-2-pyrrolidone (NMP)	872-50-4	< 1000 ppm	ISO 19070
X	Short chained chlorinated paraffin's, C10-C13 (SCCP)	85535-84-8	< 1000 ppm	ISO 18219
O	Medium chained chlorinated paraffin's, C14-C17 (MCCP)	85535-85-9	< 1000 ppm	ISO 18219
X	pH value of aqueous extract	-	3.5-7.0	ISO 4045
O	Pesticides (Sum)	See appendix 8	< 1 ppm	GC/MS
O	Flame retardants	See appendix 3	5ppm	GC/MS or LC/MS
O	2(thiocyanomethylthio)benzothiazole (TCMTB) (Preservatives)	21564-17-0	< 500 ppm	ISO 13365
O	4-chloro-3-methylphenol (CMK) (Preservatives)	59-50-7	< 600 ppm	ISO 13365

¹ Only on coated material

² Only on anti-mold / bacterial materials

³ Only water/stain resistance treated material

	Substance	CAS no	Concentration limit	Test method
O	2-phenylphenol (OPP) (Preservatives)	90-43-7	< 1000 ppm	ISO 13365
O	2-octyl-4-isothiazolin-3-one (OIT) (Preservatives)	26530-20-1	< 250 ppm	ISO 13365

2. Textile/synthetic textile

	Substance	CAS no	Concentration limit	Test Method
X	Azo dyes	See appendix 1	≤ 20 ppm	EN 14362-1 4-Aminobenzene: EN 14362-1/-3
X ⁴	Carcinogenic and allergenic dyes	See appendix 2	< 1 mg/l	DIN 54231
X	Pentachlorophenol (PCP)	87-86-5	< 0,5 ppm	ISO 17070
X ⁵	Pentachlorophenol (PCP) (Child)	87-86-5	children under 36 months: < 0.05 ppm	
X	Tetrachlorophenols (TeCP) each isomer 2,3,4,5 Tetrachlorophenol 2,3,4,6 Tetrachlorophenol 2,3,5,6 Tetrachlorophenol	4901-51-3 58-90-2 935-95-5	< 0.5 ppm	
X	Trichlorophenols (TriCP) each isomer 2,3,4 Trichlorophenol 2,3,5 Trichlorophenol 2,3,6 Trichlorophenol 2,4,5 Trichlorophenol 2,4,6 Trichlorophenol 3,4,5 Trichlorophenol	15950-66-0 933-78-8 933-75-5 95-95-4 88-06-2 609-19-8	< 0.5 ppm	
X	Formaldehyde	50-00-0	children under 36 months: < 16 ppm others:< 75 ppm	ISO 14184-1
X ⁸	Short chained chlorinated paraffin's, C10-C13	85535-84-8	< 1000 ppm	ISO 18219
X ⁶	Phthalates:	See appendix 9	sum: < 500 ppm	CPSC-CH-C1001-09.3

⁴ Only relevant for synthetic textile

⁵ Only relevant for natural textile

⁶ Only on coated material

	Substance	CAS no	Concentration limit	Test Method
X	Organotin compounds: Monobutyltin (MBT) Dibutyltin (DBT) Tributyltin (TBT) Dioctyltin (DOT) Triphenyltin (TPhT) Tri-substituted Organotins Bis(tributyl)tin (TBTO)	various various various various various various various	< 1 ppm each < 1 ppm each < 0.05 ppm each < 1 ppm each < 1 ppm each < 1 ppm each < 1 ppm each	ISO/TS 16179
X ⁷	Long chain perfluorinated and polyfluorinated chemicals (PFC's) – C8 and longer	See appendix 4	See appendix 4	CEN/TS 15968 Report both mass/area and mass/mass
X	Nonyl phenol (NP) Nonyl phenol Ethoxylates (NPEO) Octylphenol (OP) Octyl phenol Ethoxylates (OPEO)	See appendix 5	< 100 ppm	ISO 18254-1
X	Antimony (Sb) - soluble	7440-36-0	< 30.0 ppm	Extraction with acidic sweat solution according to D DIN EN ISO 105-E04 Analysis via EN ISO 17294-2
X	Arsenic (As) - soluble	7440-38-2	< 0.2 ppm	
X	Barium (Ba) - Soluble	7440-39-3	< 1000 ppm	
X	Cadmium (Cd) – soluble	7440-43-9	< 0.1 ppm	
X	Chromium (Cr) – soluble	7440-47-3	< 2.0 ppm	
X	Cobalt (Co) – soluble	7440-48-4	< 4.0 ppm	
X	Copper (Cu) – soluble	7440-50-8	< 50 ppm	
X	Lead (Pb) – soluble	7439-92-1	< 0.2 ppm	
X	Mercury (Hg) – soluble	7439-97-6	< 0.02 ppm	
X	Nickel (Ni) - soluble	7440-02-0	< 4.0 ppm	
X	Selenium (Se) - Soluble	7782-49-2	< 500 ppm	
X	Total Lead (Pb) (Substrate)	7439-92-1	< 90 ppm	CPSC-CH-E1002-08,3
X ⁸	Total Lead (Pb) (Surface coating)	7439-92-1	< 90 ppm	CPSC-CH-E1003-09,1
X ^{8,9}	Total Cadmium (Cd)	7440-43-9	< 40 ppm	CPSC-CH-E1002-08,3
X ¹⁰	Dimethyl fumarate (DMFu)	624-49-7	< 0.1 ppm	ISO/TS 16186
X ^{9,10}	Triclosan	3380-34-5	Not detected	Solvent extraction GC-MS
X ¹¹	Polyvinyl Chloride (PVC)	9002-86-2	Not detected	Beilstein Test/FTIR
X	Polycyclic aromatic hydrocarbons 18 PAH (sum)	See appendix 7	< 10 ppm (sum)	AfPS GS 2014:01PAK

⁷ Only relevant for water/stain repellent materials

⁸ Only on coated material

⁹ Only relevant for natural textiles

¹⁰ Only relevant on anti mold / bacterial material

¹¹ Only relevant for synthetic textiles

	Substance	CAS no	Concentration limit	Test Method
X	1-methyl-2-pyrrolidone (NMP)	872-50-4	< 500 ppm	ISO 19070
X	pH value of aqueous extract		4.0-7.5 with skin contact 4.0-9.0 without skin contact	ISO 3071
O	Flame retardants	See appendix 3	< 5 ppm	GC/MS or LC/MS DIN/ISO 17881.1/2
O ⁹	Pesticides	See appendix 8	< 1 ppm (Sum)	GC/MS
O	2-phenylphenol (OPP) (Preservatives)	90-43-7	< 100 ppm	ISO 13365

3. Plastic/polymer (non textile)/latex/rubber/artificialleather

	Substance	CAS no	Concentration limit	Test method
X	Organotin compounds: Monobutyltin (MBT) Dibutyltin (DBT) Tributyltin (TBT) Dioctyltin (DOT) Triphenyltin (TPhT) Tri-substituted Organotins Bis(tributyl)tin (TBTO)	various various various various various various various	< 1 ppm each < 1 ppm each < 0.05 ppm each < 1 ppm each < 1 ppm each < 1 ppm each < 1 ppm each	ISO/TS 16179
X	Total Lead (Pb)	7439-92-1	< 90 ppm	CPSC-CH-E1002-08,3
X	Total Cadmium (Cd)	7440-43-9	< 40 ppm	CPSC-CH-E1002-08,3
X	Phthalates	See appendix 9	< 500 ppm (sum)	CPSC-CH-C1001-09.3
X	Nonyl phenol (NP) Nonyl phenol ethoxylates (NPEO) Octylphenol (OP) Octyl phenol Eehoxylates (OPEO)	See appendix 5	< 100 ppm	EN ISO 18254-1
X	Polyvinyl chloride (PVC)	9002-86-2	Not detected	Beilstein Test/FTIR
X	Polycyclic aromatic hydrocarbons 18 PAH	See appendix 7	< 10 ppm (sum)	AfPS GS 2014:01PAK
X	Polycyclic aromatic hydrocarbons 8 PAH	See appendix 7	Each component: < 1 ppm	
X ¹²	2-phenyl-2-propanol	617-94-7	< 10 ppm	Headspace GC-MS
X ¹²	Acetophenone	98-86-2	< 10 ppm	Headspace GC-MS
X ¹³	2-mercaptobenzothiazole (2-MBT)	149-30-4	< 10 ppm	Solvent extraction ,HPLC – DAD

¹² Only EVA material

¹³ Only on natural and synthetic rubber

	Substance	CAS no	Concentration limit	Test method
X ¹³	N-Nitrosamines	See appendix 6	Not detected (0.5mg/kg for each)	GB/T 24153
X ¹⁴	Dimethyl fumarate (DMFu)	624-49-7	< 0.1 ppm	ISO/TS 16186
X ¹⁵	Dimethylformamide (DMFA)	68-12-2	< 50 ppm	ISO/TS 16189
X ¹²	Formamide	75-12-7	< 50 ppm	Methanol extraction , GC - MS
X	Short chained chlorinated paraffin's, C10-C13	85535-84-8	< 1000 ppm	ISO 18219
O	Medium chained chlorinated paraffin's, C14-C17 (MCCP)	85535-85-9	< 1000 ppm	ISO 18219
O	Flame retardants	See appendix 3	5 ppm	GC/MS or LC/MS

4. Wood/cork

	Substance	CAS no	Concentration limit	Test method
X	Pentachlorophenol (PCP)	87-86-5	< 0.5 ppm	ISO 17070
X	Tetrachlorophenols (TeCP) each isomer 2,3,4,5 Tetrachlorophenol 2,3,4,6 Tetrachlorophenol 2,3,5,6 Tetrachlorophenol	4901-51-3 58-90-2 935-95-5	< 0.5 ppm	
X	Trichlorophenols (TriCP) each isomer 2,3,4 Trichlorophenol 2,3,5 Trichlorophenol 2,3,6 Trichlorophenol 2,4,5 Trichlorophenol 2,4,6 Trichlorophenol 3,4,5 Trichlorophenol	15950-66-0 933-78-8 933-75-5 95-95-4 88-06-2 609-19-8	< 0.5 ppm	
X	Formaldehyde	50-00-0	children under 36 months: < 16 ppm others < 75 ppm	EN 717-3
X ¹⁶	Dimethyl fumarate (DMFu)	624-49-7	< 0.1 ppm	ISO/TS 16186
X	Total Lead (Pb)	7439-92-1	< 90 ppm	CPSC-CH-E1002-08,3
X	Total Arsenic	7440-38-2	Prohibited	CPSC-CH-E1002-08,3
X	Total Mercury	7439-97-6	prohibited	CPSC-CH-E1002-08,3

¹⁴ Only relevant on anti mold / bacterial material

¹⁵ Only on polymer coating

¹⁶ Only relevant on anti mold / bacterial material

5. Metal

	Substance	CAS no	Concentration limit	Test method
X	Total Cadmium (Cd)	7440-43-9	< 40 ppm	CPSC-CH-E1001-08,3
X	Total Lead (Pb)	7439-92-1	< 90ppm	CPSC-CH-E1001-08,3
X	Nickel release	7440-02-0	< 0.5 µg / cm ² / week	EN 1811+A1 EN 12472+A1 (coated items)

6. Adhesive

	Substance	CAS no	Concentration limit	Test method
X	Formaldehyde	50-00-0	children under 36 months: < 16 ppm others: < 75 ppm	
X	Phthalates	See appendix 9	< 500 ppm (sum)	CPSC-CH-C1001-09.3
X	Organotin compounds: Monobutyltin (MBT) Dibutyltin (DBT) Tributyltin (TBT) Dioctyltin (DOT) Triphenyltin (TPhT) Tri-substituted Organotins Bis(tributyl)tin (TBTO)	various various various various various various various	< 1 ppm each < 1 ppm each < 0.05 ppm each < 1 ppm each < 1 ppm each < 1 ppm each < 1 ppm each	ISO/TS 16179
X	Dimethylformamide (DMFA)	68-12-2	< 50 ppm	ISO/TS 16189
X ¹⁷	Dimethyl fumarate (DMFu)	624-49-7	< 0.1 ppm	ISO/TS 16186
X ¹⁷	Triclosan	3380-34-5	Not detected	Solvent extraction GC-MS
X	Octyl phenol Ethoxylates (OPEO) Nonyl phenol Ethoxylates (NPEO) Octylphenol (OP) Nonyl phenol (NP)	See appendix 5	< 100 ppm	Inhouse method
X	1-methyl-2-pyrrolidone (NMP)	872-50-4	< 500 ppm	Headspace GC-MS

7. Paint applied/Prints

	Substance	CAS no	Concentration limit	Test method
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¹⁷ Only relevant on anti mold / bacterial material

X	Total Lead (Pb)	7439-92-1	< 90 ppm in surface coating	CPSC-CH-E1003-09,3
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8. Packaging

	Substance	CAS no	Concentration limit	Test method
X ¹⁸	Dimethyl fumarate (DMFu)	624-49-7	< 0.1 ppm	ISO/TS 16186
X	Total : Cadmium (Cd) Mercury (Hg) Lead (Pb) Chromium VI (Cr VI)	7440-43-9 7439-97-6 7439-92-1 18540-29-9	< 100 ppm (Sum)	CR 13695-1

Chemical use and risk

Name	Typical use	Associated issues
Alkylphenols and alkylphenol ethoxylates	Used in the textile industry in cleaning and dyeing processes.	Toxic to aquatic life. Persist in the environment and can accumulate in the body tissue.
Azo dyes	Synthetic dyes for textile fibers, leather, synthetic materials etc.	Azo dyes may penetrate human skin and that skin cells possess enzymes that reduce azo bond leading to the formation of carcinogenic aromatic amines
Brominated flame retardants	As flame retardants in textile	Persistent and bio-accumulative chemicals. Capable of interfering with the hormone system.
Chlorinated phenols	Used as biocides	Toxic to humans and can affect organs in the body. Also toxic to aquatic organism
Dimethyl formamid (DMFA)	used as an industrial solvent and in the production of fibers, films, and surface coatings	Has been observed to damage the liver in animals and in humans.
Dimethyl fumarate (DMFu)	Also known as DMFu. Used as mold inhibitor	Highlighted as being allergenic
Formaldehyde	used in pressed-wood products and used as fungicide	Can be allergenic and irritate the upper respiratory tract. WHO has classified formaldehyde as carcinogenic for humans.

¹⁸ Only on silica gel

Heavy metals	In dyes, pigments, and stabilizer for plastic.	The metals can accumulate in the body over time and are highly toxic with irreversible effects including damage to the nervous systems (lead and mercury) or the kidney (Cadmium). Cadmium is also known to cause cancer.
Hexavalent chromium (CrVI)	The majority of leather produced today are tanned using chromium salts and in the finished leather this is present as chromium III, which is safe to use and not hazardous. Under specific condition chromium III can be transformed to chromium VI.	Chromium VI is allergenic Cr(VI) is known to cause cancer. In addition, it targets the respiratory system, kidneys, liver, skin and eyes.
Nickel	Used in alloys and as surface finishing	Allergenic
Organotin compounds	Also known as organic tin or organostannic compounds. Used for many purposes for example antifungal agent and stabilizers in the production of plastic.	Bio-accumulate and can affect immune and reproductive system.
PFC	Large group of manmade compounds that are widely used to make everyday products more resistant to stain, grease and water.	Persists in the environment and can accumulate in body tissue. Some have shown to act as hormone disruptors.
Phthalates	Mainly used as plasticizers (or softeners) in plastics. Used as ingredients in inks, adhesives. Sealants and surface coatings.	Hormone disruption and some are classified as "toxic to reproduction" in Europe
Polyaromatic hydrocarbons (PAH)	Can be found in petrochemicals, rubber	Toxic to the environment and carcinogenic
Short chain chlorinated paraffins (SCCP)	Used in the textile industry as flame retardants and finishing agent for leather and textile	Toxic to aquatic organisms. Do not readily break down in the environment and have a high potential to accumulate in living organisms.

Appendix 1 – Azo dyes

Chemical	CAS no
4-aminobiphenyl	92-67-1
Benzidine	92-87-5
4-chloro-o-toluidine	95-69-2
2-naphthylamine	91-59-8
o-aminoazotoluene	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	101-77-9
3,3'-dichlorobenzidine	91-94-1
3,3'-dimethoxybenzidine	119-90-4
3,3'-dimethylbenzidine	119-93-7
4,4'-methylenedi-o-toluidine	838-88-0
6-methoxy-m-toluidine	120-71-8
2-chloroaniline	101-14-4
4,4'-oxydianiline	101-80-4
4,4'-thiodianiline	139-65-1
o-toluidine	95-53-4
4-methyl-m-phenylenediamine	95-80-7
2,4,5-trimethylaniline	137-17-7
o-anisidine	90-04-0
4-aminoazobenzene	60-09-3
2,4 – Xylidine	95-68-1
2,6 – Xylidine	87-62-7

Appendix 2 – Carcinogenic and allergenic disperse dyes

Allergenic Disperse Dyes	
Chemical	CAS no
Disperse blue 3	2475-46-9
Disperse blue 7	3179-90-6
Disperse blue 26	3860-63-7
Disperse blue 35	12222-75-2
Disperse blue 102	12222-97-8
Disperse blue 106	12223-01-7
Disperse blue 124	61954-51-7
Disperse brown 1	23355-64-8
Disperse orange 1	2581-69-3
Disperse orange 3	730-40-5
Disperse orange 37/76	13301-61-6
Disperse red 1	2872-52-8
Disperse red 11	2872-48-2
Disperse red 17	3179-89-3
Disperse yellow 1	119-15-3
Disperse yellow 9	6373-73-5
Disperse yellow 39	12239-29-2
Disperse yellow 49	54824-37-2

Allergenic and Carcinogenic Dyes	
Chemical	CAS no
Disperse blue 1	2475-45-8
Disperse yellow 3	2832-40-8
Carcinogenic Dyes	
Chemical	CAS no
Acid red 26	3761-53-3
Basic red 9	569-61-9
Basic violet 14	632-99-5
Direct black 38	1937-37-7
Direct blue 6	2602-46-2
Direct red 28	573-58-0
Disperse orange 11	82-28-0
Further forbidden dyes	
Chemical	CAS no
Disperse yellow 23	6250-23-3
Disperse orange 149	85136-74-9

Appendix 3 – Flame Retardants

Chemical	CAS no	Requirement
Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	5 PPM
Decabromodiphenyl ether (DecaBDE)	1163-19-5	5 PPM
Tris(2,3,-dibromopropyl)- phosphate (TRIS)	126-72-7	5 PPM
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	5 PPM
Octabromodiphenyl ether (OctaBDE)	32536-52-0	5 PPM
Bis(2,3-dibromopropyl)phosphate (BIS) or (BBP)	5412-25-9	5 PPM
Tris(1-aziridiny)phosphine oxide (TEPA)	545-55-1	5 PPM
Polybromobiphenyls (PBB)	59536-65-1	5 PPM
Tetrabromobisphenol A (TBBPA)	79-94-7	5 PPM
Hexabromocyclododecane (HBCDD)	3194-55-6 /25637-99-4	5 PPM
2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	5 PPM
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	5 PPM
Bis (2,3-dibromopropylether) of tetrabromobisphenol (BDBPT)	21850-44-2	5 PPM

Appendix 4 - Long chain perfluorinated and polyfluorinated chemicals (PFC)

Chemical	CAS no	Requirement
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol (EtFOSE)	1691-99-2	1 µg/m ²
Perfluoro-3,7-dimethylotanoic Acid (PF-3,7-DMOA)	172155-07-6	1 µg/m ²
1H,1H,2H,2H- Perfluorooctylacrylate (6:2 FTA)	17527-29-6	1 µg/m ²
1H,1H,2H,2H- Perfluorododecylacrylate (10:2 FTA)	17741-60-5	1 µg/m ²
Perfluoroundecanoic acid (PFUdA)	2058-94-8	1 µg/m ²
1H,1H,2H,2H- Perfluorooctanesulphonic acid (1H,1H,2H,2H-PFOS)	27619-97-2	1 µg/m ²
1H,1H,2H,2H- Perfluorodecylacrylate (8:2 FTA)	27905-45-9	1 µg/m ²
Perfluorododecanoic acid (PFDoA)	307-55-1	1 µg/m ²
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	1 µg/m ²
Perfluorooctanoic acid (PFOA) incl it salts	335-67-1 multiple	1 µg/m ²
perfluorodecanoic acid (PFDA)	335-76-2	1 µg/m ²
2H,2H,3H,3H- Perfluoroundecanoic Acid (H4PFUnA)	34598-33-9	1 µg/m ²
perfluorononanoic acid (PFNA)	375-95-1	1 µg/m ²
Perfluorotetradecanoic acid (PFTeA)	376-06-7	1 µg/m ²
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	1 µg/m ²
perfluoroundecanoic acid (PFUnA)	4234-23-5	1 µg/m ²
1H,1H,2H,2H-Perfluoro-1-Decanol (8:2 FTOH)	678-39-7	10 µg/m ²
perfluorotridecanoic acid (PFTrA)	72629-94-8	1 µg/m ²
perfluorooctane sulfonamide (PFOSA)	754-91-6	1 µg/m ²
1H,1H,2H,2H-Perfluoro-1-Dodecanol (10:2 FTOH)	865-86-1	10 µg/m ²
Perfluorooctane sulfonate (PFOS) and its salts	2795-39-3 multiple	1 µg/m ²
7H-Dodecanefluoroheptane Acid	1546-95-8	1 µg/m ²
2H,2H-Perfluorodecane Acid	882489-14-7	1 µg/m ²

Appendix 5 – Alkylphenols NPEO/OPEO/NP/OP

Chemical	CAS no
Nonylphenol (NP)	104-40-5 11066-49-2 25154-52-3 84852-15-3
Octylphenol (OP)	140-66-9 1806-26-4 27193-28-8
Octylphenol ethoxylates (OPEO)	9002-93-1 9036-19-5 68987-90-6
Nonylphenol ethoxylates (NPEO)	9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0

Appendix 6 – N-Nitrosamines

Chemical	CAS no
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 (NDIP)	100-75-4
N-nitrosopyrrolidine (NPYR)	930-55-2
N-nitrosomorpholine (NMOR)	59-89-2
N-nitroso N-methyl N-phenylamine (NMPhA)	614-00-6
N-nitroso N-ethyl N-phenylamine (NMPhA)	612-64-6

Appendix 7 – PAHs

18 PAHs:	
Chemical	CAS no
Naphthalene	91-20-3
Acenaphthylene	208-96-8
Acenaphthene	83-32-9
Fluorene	86-73-7
Phenanthrene	85-01-8
Anthracene	120-12-7
Fluoranthene	206-44-0
Pyrene	129-00-0
Benzo[a]anthracene	56-55-3
Chrysene	218-01-9
Benzo[b]fluoranthene	205-99-2
Benzo[j]fluoranthene	205-82-3
Benzo[k]fluoranthene	207-08-9
Benzo[a] pyrene	50-32-8
Benzo[e] pyrene	92-97-2
Dibenzo[a,h]anthracene	53-70-3
Benzo[g,h,i] perylene	191-24-2
Indeno[1,2,3-cd]pyrene	193-39-5

8 PAHs:	
Chemical	CAS no
Benzo[a] pyrene	50-32-8
Benzo[e] pyrene	192-97-2
Benzo[a]anthracene	56-55-3
Chrysene	218-01-9
Benzo[b]fluoranthene	205-99-2
Benzo[j]fluoranthene	205-82-3
Benzo[k]fluoranthene	207-08-9
Bibenzo[a,h]anthracene	53-70-3

Appendix 8 – Pesticides

Chemical	CAS no
DDT	50-29-3 789-02-6
Lindane	58-89-9
Aldrine	309-00-2
Dieldrine	60-57-1
Methoxychlor	72-43-5
DDD	53-19-0 72-54-8
DDE	72-55-9 3424-82-6
Heptachlor	76-44-8
Heptachloroepoxid	1024-57-3
Hexachlorcyclohexane (α)	319-84-6
Hexachlorcyclohexane (β)	319-85-7
Hexachlorcyclohexane (δ)	319-86-8
Malathion	121-75-5
Mirex	2385-85-5
Parathion(-ethyl)	56-38-2
2,4,5-Trichlorophenoxyacetic acid, salts and compounds	93-76-5
Chlordane	57-74-9
Endosulfan, α-	959-98-8
Endosulfan, β-	33213-65-9
Endrin	72-20-8
Hexachlorbenzol	118-74-1
Isodrin	465-73-6
Kelevan	4234-79-1
Kepon	143-50-0
Perthan	72-56-0
Stroban	8001-50-1
Telodrin	297-78-9
Toxaphen (Camphechlor)	8001-35-2

Appendix 9 - Phthalates

Chemical	CAS no
Di-iso-nonyl phthalate (DINP)	28553-12-0/ 68515-48-0
Di-n-octyl phthalate (DnOP)	117-84-0
Di-ethylexyl phthalate (DEHP)	117-81-7
Di-iso-decyl phthalate (DIDP)	26761-40-0/ 68515-49-1
Benzyl butyl phthalate (BBP)	85-68-7
Di-n-butyl phthalate (DBP)	84-74-2
Di-iso-butyl phthalate (DIBP)	84-69-5
Bis-(2-methoxyethyl) phthalate (BMEP)	117-82-8
Di-n-hexyl phthalate (DnHP)	84-75-3
1,2-benzenedicarboxylic acid, di-C7-11 branched and linear alkyl ester (DHNUP)	68515-42-4
1,2-benzenedicarboxylic acid, di-C6-8 Branched alkyl ester (DIHP)	71888-89-6
Diisopentylphthalate (DIPP)	605-50-5
1,2-Benzenedicarboxylic acid, dipentylester, branched + linear	84777-06-0
Dimethylphthalate (DMP)	131-11-3
Dihexylphthalate, branched + linear	68515-50-4
Di-n-pentylphthalate (DPP)	131-18-0
n-Pentylisopentylphthalate (nPIPP)	776297-69-9
Diethylphthalate (DEP)	84-66-2

Revision history

Version	Approving Body	Effective Date:	Changes Summary
1.0	Philip Rydhard	9 September 2013	1. New Layout and Set UP
1.1	Philip Rydhard	11 November 2013	1. Added PFOA to restriction
1.2	Not Required	6 January 2014	1. Annual Review with SATRA 2. Added CAS numbers
1.3	Not Required	19 March 2014	1. Added text on front page that ECCO RCS List is based on legislation and customer requirements 2. Added Revision History section
2.0	Philip Rydhard	1 October 2014	1. Changed CAS number from TCMTB 2. Added new material category named "Paint applied" 3. Removed "Synthetic Leather" column from Material Categories 4. Added benzo[e] pyrene (CAS 92-97-2 & benzo[j]fluoranthene (205-82-3) to Appendix 6 5. Replaced Nickel release DIN EN 12471 with DIN EN 12472 6. Updated Legend details on page 9 7. Replaced REACH Substances of Very High Concern (REACH-SVHC) with REACH regulation (EC) No.1907/2006 8. Added description to the list of substances 9. Added new page 2 named "Purpose"
2.1	Not Required	1 November 2014	1. Corrected the typos for the testing requirements for packaging and metals 2. Under "Material Categories", replaced column heading named "Plastic/polymers/Synthetic Leather" with "Plastic/ polymers/PU-coated textile/latex/rubber" which was overlooked in version 2.0.
3.0	Philip Rydhard	15 June 2015	1. Changed requirement of the banned azodyes to 20 ppm 2. Changed requirement pH textile 3. Changed PFOS and PFOA to long chain perfluorinated and polyfluorinated chemicals (PFC's) including an appendix 4. Removed wood preservatives 5. Changed requirement NP/NPEO/OP/OPEO to 100 ppm 6. Added Polyvinyl chloride 7. Changed (Caoutchouc ,Latex) to (Natural Rubber) 8. Changed requirement Short chained chlorinated paraffin's , C10-C13 from not used to not detected 9. Changed requirement of DMFA to 50 ppm 10. Changed instruction to testmethod for total Cd,Hg,Pb and Cr VI (packaging category) 11. Changed text for PFOS/PFOA to text for PFC 12. Removed Hexachlorcyclohexane (E) and Permethrin from appendix pesticides 13. Changed chemicals explanation to chemicals use and associated issues. 14. Renumbered Appendixes
4.0	Philip Rydhard	1. January 2017	1. Changed ageing for chromium VI testing to 24h at 80°C and < 5 % humidity on page 4 2. Changed CAS No. from DBT to 1002-53-5 on page 4,7,8 and 11 3. Changed requirement for Total Lead to 90 ppm on page 5,8 and 11 4. Changed test method for Total Lead to CPSC-CH-E1002-08,3 on page 5,8 and 11 5. Added Total Cadmium to leather category on page 5 6. Changed requirement from SCCP to < 500 ppm on page 5 and 9 7. Changed the requirement of TCMTB to 500 ppm on page 6

			8. Changed the requirement of CMK to 600 ppm on page 6 9. Changed the requirement of OPP to 1000 ppm on page 6 10. Changed the test method of OPP to ISO 13365 on page 6 and 8 11. Changed the requirement of OIT to 250 ppm on page 6 12. Added Total Cadmium to textile category on page 8 13. Added Total Antimony to textile category on page 8 14. Changed test method for PAHs to AfPS GS 2014:01PAK on page 8 and 9 15. Changed the requirement of OPP to 100 ppm on page 8 16. Changed Brominated Flame Retardants to Flame Retardants on page 8 and 9 17. Changed requirement for Total Cadmium to 40 ppm on page 8 18. Changed the test method of Phthalates to CPSC-CH-C1001-09.3 on page 9 19. Changed CAS No. from N-Nitrosamines to "See appendix 7" on page 9 20. Changed requirement of N-Nitrosamines to not detected on page 9 21. Changed Test method of N-Nitrosamines to GB/T 24153-2009 on page 9 22. Added DMFU to plastic category on page 9 23. Added synthetic rubber in footnote 13 on page 9 24. Added DMFU to wood category on page 10 25. Added Total Lead, Arsenic and Mercury to wood category on page 10 26. Changed test method for Cadmium to CPSC-CH-E1002-08,3 on page 10 27. Added Total Cobalt to metal category on page 10 28. Changed CAS No. Disperse Blue 106 to 12223-01-7 on page 15 29. Changed CAS No. Disperse Blue 124 to 61954-51-7 on page 15 30. Added appendix 7 N-nitrosamines on page 19. 31. Added appendix 8 Flame Retardants on page 20.	
5.0	Philip Rydhard	1. January 2018		Change name from Restricted Chemical Substances List to Product Restricted Substances List (PRSL)
			Leather	1. Adaption of test method for Chromium VI to ISO 17075-1 2. Changed requirement for Formaldehyde for children < 36 months to 16 ppm 3. Changed CAS no's of Organotin compounds to "various" 4. Changed requirement of Tributyltin to < 0.05 ppm 5. Changed requirement for soluble Lead to 0.2 ppm 6. Added Tri-substituted Organotins with 1 ppm limit 7. Changed requirement for soluble Antimony to < 30 ppm 8. Added test method to CEN/TS 15968 and request test result to be reported in mass/mass and mass/area 9. Added 18 PAH (sum) for coated leather 10. Changed test method for Phthalates to CPSC-CH-C1001-09.3 11. Moved list of Phthalates to Appendix 9 and added 7 new Phthalates 12. Changed concentration limit of Triclosan to "Not detected" 13. Added PFC test result to be reported in mass/mass and mass/area 14. Added Soluble Barium with < 1000 ppm 15. Added Soluble Selenium with < 500 ppm

				16. Changed requirement of APEOs 17. Changed limit of SCCP to < 1000 ppm 18. Added Medium chained chlorinated paraffins with to category 19. Changed test requirement for Pesticides to GC/MS 20. Changed requirement of Flame retardants to < 5 ppm and test requirement to GC/MS or LC/MS
			Textiles	1. Adopted test method for Azo Dyes to EN 14362-1/-3 2. Changed CAS no's of Organotin compounds to "various" 3. Added SCCP with < 1000 ppm 4. Changed requirement of Tributyltin to < 0.05 ppm 5. Changed requirement for soluble Lead to 0.2 ppm 6. Added Tri-substituted Organotins with 1 ppm limit 7. Added test method to CEN/TS 15968 and request test result to be reported in mass/mass and mass/area 8. Changed test method for Phthalates to CPSC-CH-C1001-09.3 9. Moved list of Phthalates to Appendix 9 and added 7 new Phthalates 10. Changed requirement for soluble Antimony to < 30 ppm 11. Adapt test method for soluble metals to EN ISO 17294-2 12. Added Soluble Barium with < 1000 ppm 13. Added Soluble Selenium with < 500 ppm 14. Deleted Total Antimony requirement 15. Changed concentration limit of Triclosan to "Not detected" 16. Changed requirement of Flame retardants to < 5 ppm and test requirement to GC/MS or LC/MS 17. Changed test requirement for Pesticides to GC/MS
			Polymers	1. Changed CAS no's of Organotin compounds to "various" 2. Changed requirement of Tributyltin to < 0.05 ppm 3. Added Tri-substituted Organotins with 1 ppm limit 4. Changed test method for APEO to EN ISO 18254-1 5. Moved list of Phthalates to Appendix 9 and added 7 new Phthalates 6. Changed requirement for 8 PAH to < 1 ppm each 7. Added test method ISO/TS 16189 for DMFA testing 8. Changed limit of SCCP to < 1000 ppm 9. Added Medium chained chlorinated paraffins to category 10. Changed Flame retardants to < 5 ppm and test requirement to GC/MS or LC/MS
			Wood / Cork	1. Changed requirement for Formaldehyde for children < 36 months to 16 ppm
			Metal	1. Deleted Total Cobalt requirement
			Adhesive	1. Changed requirement for Formaldehyde for children < 36 months to 16 ppm 2. Changed CAS no's of Organotin compounds to "various" 3. Changed requirement of Tributyltin to < 0.05 ppm 4. Added Phthalates (sum as in app 9) with test method CPSC-CH-C1001-09.3 5. Added Tri-substituted Organotins with 1 ppm limit 6. Added Dimethylformamide (DMFA) to category 7. Changed concentration limit of Triclosan to "Not detected"

			Paint applied	1. App 4: Change CAS no of PFOS and its salts 2. App 8: Add 13 Pesticides to list
			Appendix	1. Amended list of restricted Pesticides 2. Amended list of restricted Phthalates