

EQUIP

OUTDOOR TECHNOLOGIES UK LTD

March 2023

**Restricted Substances
Management Programme**

Equip Outdoor Technologies UK Ltd
Restricted Substances Management Programme March 2023

Contents

[Introduction](#)

[Restricted Substances Standards](#)

[Appendix A - restricted PFCs](#)

[The Equip Restricted Substances Management Process](#)

[Risk-based component testing](#)

Equip Outdoor Technologies UK Ltd Restricted Substances Management Programme 2023



Scope:

The standards and processes in this document apply to all components in all clothing, footwear, accessories and equipment sold by Equip Outdoor Technologies UK Ltd.



1 Introduction

Equip Outdoor Technologies ('Equip') specialise in high quality products for demanding end uses and it is expected that they are manufactured with due regard for the environment and safety of both consumers and workers involved in their manufacture.

Legislation relating to chemicals clothing footwear and equipment is complex and fragmented but compliance with the business restricted substance standards allows us to trade globally, with confidence that all components in all products are safe and legal.

Equip operate a risk-based approach whereby lower risk components are subjected to lower levels scrutiny than those that are deemed higher risk.

Equip design products using a limited number of components and many components are specified for multiple styles and multiple seasons. These 'nominated' materials are generally considered low risk, although chemical legislation is constantly evolving and complacency must be avoided.

Equip have a long history of close working relationships with key vendors and materials manufacturers and, in order to maintain on-going compliance with these standards, it is necessary to strengthen those relationships to promote full transparency of supply routes and information relating to specific components. Where components are sourced by a vendor, consolidation of sources and the use of components over multiple styles and multiple seasons it strongly encouraged.

It is expected that full information on all components used in all products is made available as required and failure to do so will result in a component being categorised as high risk, which in turn may result extensive testing at the expense of the vendor.

2 Restricted Substances Standards (Table 1)

Equip has adopted the Apparel and Footwear RSL Management (AFIRM) Group's Restricted Substance List (RSL) which forms the basis of this document. Any variations from the AFIRM RSL are highlighted in Table 1 (The RSL Table).

NOTE: Equip has accepted short-term variances to AFIRM RSL within the Perfluorinated and Polyfluorinated Chemicals (PFCs) requirements. These are only agreed by exception while PFCs are phased out of Equip's and our partner's complex supply chains.

Perfluorinated and Polyfluorinated Chemicals (PFCs)

PFOA and related – Durable water repellents (DWR) on apparel and equipment. The use of C8 fluorocarbons is not permitted. The use of any DWR's based on Perfluorochemicals (PFCs) is not permitted without prior written approval. Equip is working with supply chain partners to phase out all PFCs by 2025 whilst optimising product performance.

It is expected that all components meet all the standards in Table 1 on an on-going basis and a test for any listed chemical on any material may be requested at any time during the buying process. However, a selection of higher priority chemicals, that are of most relevance to the materials used in Rab and Lowe Alpine products, are provided in Table 2 in Section 3 of the document.

CAS No.	Substance	Limits Raw Material & Finished Product	Potential Uses Textile Processing for Apparel & Footwear	Suitable Test Method Sample Preparation & Measurement	Reporting Limits Limits above which test results should be reported
	Acetophenone and 2-Phenyl-2-Propanol	EVA foams only			
98-86-2	Acetophenone	50 ppm each	Potential breakdown products in EVA foam when using dicumyl peroxide as a cross-linking agent.	Extraction in acetone or methanol	25 ppm each
617-94-7	2-Phenyl-2-propanol			GC/MS, sonication for 30 minutes at 60 degrees C	
	Acidic and alkaline substances	All textile, leather and artificial leather			
Various	pH-value	Textiles: 4.0 - 7.5 Leather: Chrome-tanned: 3.2 – 4.5 Other: 3.5 – 7.0	The pH-value is a characteristic number, ranging from pH 1 to pH 14, indirectly showing the content of acidic or alkaline substances in a product. pH-values below 7 indicate sources of acidic substances and values above 7 indicated sources of alkaline substances. To avoid irritation or chemical burns of skin the pH-value of products shall be in the range of the human skin with ca. pH 5.5. Limits cited are recommended to comply with all global regulations for all products. Important: Egypt, Morocco, and the Gulf Cooperation Council (GCC) require pH for leather not lower than 3.5	Textiles and Artificial Leather: EN ISO 3071:2020 Leather: EN ISO 4045:2018	NA

Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs), including all isomers		All textile, leather and artificial leather			
Various	Nonylphenol (NP), mixed isomers	Total APs: 10 ppm	<p>APs are used as intermediaries in the manufacture of APEOs and antioxidants used to protect or stabilize polymers. Biodegradation of APEOs into APs is the main source of APs in the environment.</p> <p>APEOs can be used as or found in detergents, scouring agents, spinning oils, wetting agents, softeners, emulsifying/dispersing agents for dyes and prints, impregnating agents, de-gumming for silk production, dyes and pigment preparations, polyester padding and down/feather fillings.</p> <p>APEOs and formulations containing APEOs are prohibited from use throughout supply chain and manufacturing processes.</p>	Textiles and Leather: EN ISO 21084:2019	Sum of NP & OP: 3 ppm
	Octylphenol (OP), mixed isomers			Polymers and all other materials: 1 g sample/20 mL THF, sonication for 60 minutes at 70°C analysis according to EN ISO 21084:2019	
	Nonylphenol ethoxylates (NPEOs)			All materials except leather: EN ISO 18254-1:2016, determination of APEO using LC/MS or LC/MS/MS	Sum of NPEO & OPEO: 20 ppm
	Octylphenol ethoxylates (OPEOs)			Leather: EN ISO 18218-1:2015 quantification according to EN ISO 18254-1:2016	

Azo-amines and Arylamine salts		All dyed textiles leather and mock leather (+ pigment prints)			
92-67-1	4-Aminobiphenyl	20 ppm each	<p>Azo dyes and pigments are colourants that incorporate one or several azo groups (-N=N-) bound with aromatic compounds. Thousands of azo dyes exist, but only those which degrade to form the listed cleavable amines are restricted. Azo dyes that release these amines are regulated and should no longer be used for dyeing of textiles or leather.</p> <p>Chinese legislation also applies to pigments.</p>	<p>All materials except leather: EN ISO 14362-1:2017 Leather: EN ISO 17234-1:2020</p> <p>p-Aminoazobenzene: All materials except leather: EN ISO 14362-3:2017 Leather: EN ISO 17234-2:2011</p>	5 ppm each
92-87-5	Benzidine				
95-69-2	4-Chloro-o-toluidine				
91-59-8	2-Naphthylamine				
97-56-3	o-Aminoazotoluene				
99-55-8	2-Amino-4-nitrotoluene				
106-47-8	p-Chloraniline				
615-05-4	2,4-Diaminoanisole				
101-77-9	4,4'-Diaminodiphenylmethane				
91-94-1	3,3'-Dichlorobenzidine				
119-90-4	3,3'-Dimethoxybenzidine				
119-93-7	3,3'-Dimethylbenzidine				
838-88-0	3,3'-dimethyl-4,4'-Diaminodiphenylmethane				
120-71-8	p-Cresidine				
101-14-4	4,4'-Methylen-bis(2-chloraniline)				
101-80-4	4,4'-Oxydianiline				
139-65-1	4,4'-Thiodianiline				
95-53-4	o-Toluidine				
95-80-7	2,4-Toluylendiamine				
137-17-7	2,4,5-Trimethylaniline				
95-68-1	2,4 Xylidine				
87-62-7	2,6 Xylidine				
90-04-0	2-Methoxyaniline (= o-Anisidine)				
60-09-3	p-Aminoazobenzene				
3165-93-3	4-chloro-o-toluidinium chloride				
553-00-4	2-Naphthylammoniumacetate				
39156-41-7	4-methoxy-m-phenylene diammonium sulphate				
21436-97-5	2,4,5-trimethylaniline hydrochloride				

Bisphenols		Mainly applies to polycarbonate and epoxy resins Polycarbonate materials are not permitted without written approval. BPA is on the Prop 65 list.			
80-05-7	Bisphenol A (BPA)	1 ppm	<p>BPA may be used in the production of epoxy resins, polycarbonate plastics, flame retardants, and PVC. BPS may be used as a substitute for BPA and can be found along with BPF in polyamide dye-fixing agents and sulfone- based leather tanning agents.</p> <p>BPA and BPS can be found in recycled polymeric and paper materials due to polycarbonate plastic and thermal receipt paper made with Bisphenols entering waste streams.</p> <p>Additional restrictions on the entire class of bisphenols are forthcoming with a new restriction proposal pending in the European Union</p> <p>Prohibited from use in food and drink containers, and items intended to come into contact with the mouth.</p>	<p>All materials: Extraction: 1 g sample/20 ml THF, sonication for 60 minutes at 60°C, analysis with LC/MS</p>	0.1 ppm for individual samples 1 ppm for composite samples
80-09-1	Bisphenol S (BPS)	<p>For informational purposes only – testing of polycarbonate materials recommended to assess content levels</p>	<p>BPA alternatives with known or suspected similar hazards used in the production of epoxy resins, polycarbonate plastics, flame retardants and PVC. Applicable to food and drink containers, and items intended to come into contact with oral cavity.</p>		1 ppm each
620-92-8	Bisphenol F (BPF)				
1478-61-1	Bisphenol AF (BPAF)				
Chlorinated Paraffins		Leather, synthetic leather, coatings / pigment binders			
85535-84-8	Short-chain chlorinated Paraffins (SCCP) (C10-C13)	1000 ppm	<p>May be used as softeners, flame retardants or as fat liquoring agents in leather production. Also used as plasticizer in polymer production.</p>	<p>Leather: ISO 18219-1:2021 (SCCP) ISO 18219-2:2021 (MCCP)</p> <p>Textiles ISO 22818:2021 (SCCP + MCCP)</p>	100 ppm
85535-85-9	Medium-chain chlorinated Paraffins (MCCP) (C14-C17)	1000 ppm			100 ppm
Chlorophenols		All textile, leather and artificial leather			
15950-66-0	2,3,4-Trichlorophenol (TriCP)	0.5 ppm each	<p>Chlorophenols are polychlorinated compounds used as preservatives or pesticides. Pentachlorophenol (PCP), tetrachlorophenol (TeCP), and trichlorophenols (TriCP) are sometimes used to prevent mold and kill insects when growing cotton and when storing/transporting fabrics. PCP, TeCP and TriCP can also be used as in can preservatives in print pastes and other chemical mixtures.</p>	<p>All materials: DIN 50009:2021</p>	0.5 ppm each
933-78-8	2,3,5-Trichlorophenol (TriCP)				
933-75-5	2,3,6-Trichlorophenol (TriCP)				
95-95-4	2,4,5-Trichlorophenol (TriCP)				
88-06-2	2,4,6-Trichlorophenol (TriCP)				
609-19-8	3,4,5-Trichlorophenol (TriCP)				
4901-51-3	2,3,4,5-Tetrachlorophenol (TeCP)				
58-90-2	2,3,4,6-Tetrachlorophenol (TeCP)				
935-95-5	2,3,5,6-Tetrachlorophenol (TeCP)				
87-86-5	Pentachlorophenol (PCP)				

	Chlorinated Benzene & Toulenes +	Polyester (especially small trim items possible dyed in open vessels)			
95-49-8	2-Chlorotoluene	Total: 1 ppm	Chlorobenzenes and chlorotoluenes (chlorinated aromatic hydrocarbons) can be used as carriers in the dyeing process of polyester or wool/polyester fibers. They can also be used as solvents. Cross-contamination from anti moth agents and poly shipping bags may cause failures. Important: The Gulf Cooperation Council (GCC) maintains a limit of 1 ppm for 1,2-Dichlorobenzene in textiles.	All materials: EN 17137:2018	0.2 ppm each
108-41-8	3-Chlorotoluene				
106-43-4	4-Chlorotoluene				
32768-54-0	2,3-Dichlorotoluene				
95-73-8	2,4-Dichlorotoluene				
19398-61-9	2,5-Dichlorotoluene				
118-69-4	2,6-Dichlorotoluene				
95-75-0	3,4-Dichlorotoluene				
2077-46-5	2,3,6-Trichlorotoluene				
6639-30-1	2,4,5-Trichlorotoluene				
76057-12-0	2,3,4,5-Tetrachlorotoluene				
875-40-1	2,3,4,6-Tetrachlorotoluene				
1006-31-1	2,3,5,6-Tetrachlorotoluene				
877-11-2	Pentachlorotoluene				
541-73-1	1,3-Dichlorobenzene				
106-46-7	1,4-Dichlorobenzene				
87-61-6	1,2,3-Trichlorobenzene				
120-82-1	1,2,4-Trichlorobenzene				
108-70-3	1,3,5-Trichlorobenzene				
634-66-2	1,2,3,4-Tetrachlorobenzene				
634-90-2	1,2,3,5-Tetrachlorobenzene				
95-94-3	1,2,4,5-Tetrachlorobenzene				
608-93-5	Pentachlorobenzene				
118-74-1	Hexachlorobenzene				
5216-25-1	p-chlorobenzotrichloride				
98-07-7	benzotrichloride				
100-44-7	benzyl chloride				
95-50-1	1,2-Dichlorobenzene	10 ppm			1 ppm
	Dimethylfumarate	Mainly leather (after transportation only) The use of DMFu is prohibited. The use of product such as Microfresh are encouraged if there is a requirement to protect items during storage and transportation.			
624-49-7	Dimethylfumarate (DMFu)	0.1 ppm	DMFu is an anti-mold agent used in sachets in packaging to prevent the buildup of mold, especially during shipping. Tests for DMFu should only be done post-shipment	All other materials: ISO 16186:2021	0.05 ppm

Dyes, Forbidden and Disperse		Disperse dyes – polyester and acetate. Direct dyes – cellulose. Basic dyes - acrylic			
2475-45-8	C.I. Disperse Blue 1	30 ppm each	Disperse dyes are a class of water-insoluble dyes that penetrate the fiber system of synthetic or manufactured fibers and are held in place by physical forces without forming chemical bonds. Disperse dyes are used in synthetic fiber (polyester and acetate.....and theoretically nylon and acrylic). Restricted disperse dyes are suspected of causing allergic reactions and are prohibited from use for dyeing of textiles.	All materials: DIN 54231:2022	15 ppm each
2475-46-9	C.I. Disperse Blue 3				
3179-90-6	C.I. Disperse Blue 7				
3860-63-7	C.I. Disperse Blue 26				
56524-77-7	C.I. Disperse Blue 35A				
56524-76-6	C.I. Disperse Blue 35B				
12222-97-8	C.I. Disperse Blue 102				
12223-01-7	C.I. Disperse Blue 106				
61951-51-7	C.I. Disperse Blue 124				
23355-64-8	C.I. Disperse Brown 1				
2581-69-3	C.I. Disperse Orange 1				
730-40-5	C.I. Disperse Orange 3				
82-28-0	C.I. Disperse Orange 11				
12223-33-5	C.I. Disperse Orange 37/76/59				
13301-61-6					
51811-42-8					
85136-74-9	C.I. Disperse Orange 149				
2872-52-8	C.I. Disperse Red 1				
2872-48-2	C.I. Disperse Red 11				
3179-89-3	C.I. Disperse Red 17				
61968-47-6	C.I. Disperse Red 151				
119-15-3	C.I. Disperse Yellow 1				
2832-40-8	C.I. Disperse Yellow 3				
6300-37-4	C.I. Disperse Yellow 7				
6373-73-5	C.I. Disperse Yellow 9				
6250-23-3	C.I. Disperse Yellow 23				
12236-29-2	C.I. Disperse Yellow 39				
54824-37-2	C.I. Disperse Yellow 49				
54077-16-6	C.I. Disperse Yellow 56				
3761-53-3	C.I. Acid Red 26				
569-61-9	C.I. Basic Red 9				
569-64-2	C.I. Basic Green 4				
2437-29-8					
10309-95-2					
548-62-9	C.I. Basic Violet 3				
632-99-5	C.I. Basic Violet 14				

2580-56-5	C.I. Basic Blue 26	50 ppm each	Disperse dyes are a class of water-insoluble dyes that penetrate the fiber system of synthetic or manufactured fibers and are held in place by physical forces without forming chemical bonds. Disperse dyes are used in synthetic fiber (polyester and acetate.....and theoretically nylon and acrylic). Restricted disperse dyes are suspected of causing allergic reactions and are prohibited from use for dyeing of textiles.	All materials: DIN 54231:2005	15 ppm each
1937-37-7	C.I. Direct Black 38				
2602-46-2	C.I. Direct Blue 6				
573-58-0	C.I. Direct Red 28				
16071-86-6	C.I. Direct Brown 95				
60-11-7	4-Dimethylaminoazobenzene (Solvent Yellow 2)				
6786-83-0	C.I. Solvent Blue 4				
561-41-1	4,4'-bis(dimethylamino)-4''-(methylamino) trityl alcohol				
	Dyes, Navy Blue				
118685-33-9	Component 1: C39H23ClCrN7O12S.2Na	30 ppm each	Navy blue colourants are regulated and are prohibited from use for dyeing of textiles. (Index 611-070-00-2)	All materials: DIN 54231:2022	15 ppm each
Not allocated	Component 2: C46H30CrN10O20S2.3Na				
	Flame Retardants	Only where flame retardant chemicals have been deliberately used to achieve legal flammability limits FR chemicals must only ever be used where there is a legal requirement to meet flammability legislation. The use of listed chemicals should be avoided and no FR chemicals should be used without written approval.			
84852-53-9	Decabromodiphenyl ethane (DBDPE)	10 ppm each	With very limited exceptions, flame-retardant chemicals, including the entire class of organohalogen flame retardants, should no longer be used. Listed here are examples of flame-retardant substances used historically across the apparel and footwear industry. It is not intended to be a complete list. Other flame retardants not applicable to this industry are regulated worldwide by the Stockholm Convention and the Aarhus Protocol, which have been implemented in the European Union under the POPs Regulation. The 10 ppm limit is established to account for incidental impurities, byproducts, and contaminants. Flame retardants should not be used for any other purpose, e.g., as softeners or plasticizers.	All materials: EN ISO 17881-1:2016	5 ppm each
32534-81-9	Pentabromodiphenyl ether (PentaBDE)				
32536-52-0	Octabromodiphenyl ether (OctaBDE)				
1163-19-5	Decabromodiphenyl ether (DecaBDE)				
various	All other Polybrominated diphenyl ethers (PBDE)				
79-94-7	Tetrabromobisphenol A (TBBP A)				
59536-65-1	Polybromobiphenyls (PBB)				
3194-55-6	Hexabromocyclododecane (HBCDD)				
3296-90-0	2,2-bis(bromomethyl)-1,3-propanediol (BBMP)				
13674-87-8	Tris(1,3-dichloro-isopropyl) phosphate (TDCPP)				
25155-23-1	Trixylyl phosphate (TXP)				
126-72-7	Tris(2,3,-dibromopropyl) phosphate (TRIS)				
545-55-1	Tris(1-aziridinyl)phosphine oxide (TEPA)				
115-96-8	Tris(2-chloroethyl)phosphate (TCEP)				
5412-25-9	Bis(2,3-dibromopropyl) phosphate (BDBPP)				
				EN ISO 17881-2:2016	

Fluorinated Greenhouse Gases					
Various	See Regulation (EC) No 517/2014 for a complete list.	0.1 ppm each	May be used as foam blowing agents, solvents, fire retardants, and aerosol propellants and are prohibited from use.	Sample preparation: Purge and trap — thermal desorption or SPME Measurement: GC/MS	0.1 ppm each
Formaldehyde					
Fusings/ laminates/ coatings/ binders					
50-00-0	Formaldehyde	Adults and children: 75 ppm Babies: 16 ppm	Used in textiles as an anti-creasing and anti-shrinking agent. It is also often used in polymeric resins. Although very rare in apparel & footwear, composite wood materials, e.g., particle board and plywood, must comply with existing California and forthcoming US formaldehyde emission requirements (40 CFR 770). Important: United Arab Emirates Cabinet Resolution No (54) restricts for maldehyde in children's textiles to 20 ppm	All materials except leather: JIS L 1041-1983 A (Japan Law 112) or EN ISO 14184-1:2011 Leather: EN ISO 17226-2:2019 with EN ISO 17226-1:2021 confirmation method in case of interferences Alternatively, prEN ISO 17226-1:2017 can be used on its own.	16 ppm
Heavy Metals					
Main risk areas are highlighted in bold font below					
7440-36-0	Antimony (Sb)	Extractable: 30 ppm	Found in or used as a catalyst in polymerisation of polyester , flame retardants, fixing agents, pigments and alloys.	All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2019	Extractable: 3 ppm
7440-38-2	Arsenic (As)	Extractable: 0.2 ppm Total: 100 ppm	Arsenic and its compounds can be used in preservatives, pesticides and defoliants for cotton, synthetic fibers, paints, inks, trims and plastics.	Extractable: All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2019 Total: All materials except leather: DIN EN 16711-1:2016 Leather: DIN EN ISO 17072-2:2019	Extractable: 0.1 ppm Total: 10 ppm
7440-39-3	Barium (Ba)	Extractable: 1000 ppm	Barium and its compounds can be used in pigments for inks, plastics, surface coatings, as well as in dyeing, mordant, filler in plastics, textile finish, and leather tanning.	All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2019	Extractable: 100 ppm
7440-43-9	Cadmium (Cd)	Extractable: 0.1 ppm Total: 40 ppm	Cadmium compounds are used as pigments (especially in red, orange, yellow and green); as a stabilizer for PVC; and in fertilizers, biocides and paints. Found in metals / alloys	Extractable: All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2019 Total: All materials except leather: DIN EN 16711-1:2016 Leather: DIN EN ISO 17072-2:2019	Extractable: 0.05 ppm Total: 5 ppm
7440-47-3	Chromium (Cr)	Extractable: Textiles: 2 ppm Leather footwear for babies: 60 ppm	Chromium compounds can be used as dyeing additives, dye-fixing agents, colour fastness, after-treatments, dyes for wool, silk and polyamide (especially dark shades) and leather tanning. Important: Egypt restricts extractable Chromium to 2 ppm in leather products for babies and 200 ppm in leather products for other ages.	All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-2:2019	Extractable: 0.5 ppm

18540-29-9	Chromium VI	Extractable: Leather: 3 ppm Textiles: 1 ppm	Though typically associated with leather tanning, Chromium VI also may be used in the dyeing of wool (after the chroming process).	All materials except leather: DIN EN 16711-2:2016 with EN ISO 17075-1:2017 if Cr is detected Leather: EN ISO 17075-1:2017 and EN ISO 17075-2:2017 for confirmation in case the extract causes interference. Alternatively, EN ISO 17075-2:2017 may be used on its own. Ageing test: ISO 10195:2018 Method A2 should be used to check leather prior to product assembly	Extractable: Leather: 3 ppm Textiles: 0.5 ppm
7440-48-4	Cobalt (Co)	Extractable: Adults: 4 ppm Children/babies: 1 ppm	Cobalt and its compounds can be used in alloys, pigments, dyestuff , and the production of plastic buttons.	All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2019	Extractable: 0.5 ppm
7440-50-8	Copper (Cu)	Extractable: Adults: 50 ppm Children/babies: 25 ppm	Copper and its compounds can be found in alloys and pigments and dyes , and in textiles as an antimicrobial agent.	All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2019	Extractable: 5 ppm
7439-92-1	Lead (Pb)	Extractable: Adults: 1 ppm Children: 0.2 ppm Babies: 0.2 ppm Total: 90 ppm	May be associated with plastics, paints, inks, pigments and surface coatings. Also present in metals and alloys	Extractable: All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2019 Total: Non-metal: CPSC-CH-E1002-08.3 Metal: CPSC-CH-E1001-08.3 Lead in paint and surface coating: CPSC-CH-E1003-09.1	Extractable: 0.2 ppm Total: 10 ppm
7439-97-6	Mercury (Hg)	Extractable: 0.02 ppm Total: 0.5 ppm	Mercury compounds can be present in pesticides and as contaminants in caustic soda (NaOH). They may also be used in paints. They may also be used in paints and as catalysts in the manufacture of PU and vinyl chloride for use in PVC.	Extractable: All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2019 Total: All materials except leather: DIN EN 16711-1:2016 Leather: DIN EN ISO 17072-2:2019	Extractable: 0.02 ppm Total: 0.1 ppm
7440-02-0	Nickel (Ni)	Extractable: 1 ppm Release (metal parts): Prolonged skin contact: 0.5 µg/cm ² /week Pierced part: 0.2 µg/cm ² /week Eyewear frames: 0.5 µg/cm ² /week	Nickel and its compounds can be used for plating alloys and improving corrosion-resistance and hardness of alloys. They can also occur as impurities in pigments and alloys. Used in some dyes	Extractable: All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2019 Release: EN 12472:2005+ A1:2009 and EN 1811:2011+A1:2015 Release (Eyewear Frames): EN 16128:2015 A spot test can be conducted – full test must follow a positive detection	Extractable 0.1ppm & Release: 0.5 µg/cm ² /Week
7782-49-2	Selenium (Se)	Extractable: 500 ppm	May be found in synthetic fibers, paints, inks, plastics and metal trims.	All materials except leather: DIN EN 16711-2:2016 Leather: DIN EN ISO 17072-1:2019	Extractable: 50 ppm

Monomers		Main risk areas are highlighted in bold font below			
100-42-5	Styrene, free	500 ppm	Styrene is a precursor for polymerization and may be present in various styrene-copolymers like plastic buttons.	Extraction in Methanol GC/MS, sonication for 60 minutes at 60°C	50 ppm
75-01-4	Vinyl Chloride	1 ppm	Vinyl Chloride is a precursor for polymerization and may be present in various PVC materials like prints, coatings, flip flops, and synthetic leather.	EN ISO 6401:2008	1 ppm
N-Nitrosamines		Rubber			
62-75-9	N-nitrosodimethylamine (NDMA)	0.5 ppm each	Can be formed as by-product in the production of rubber.	EN ISO 19577:2019 with LC/MS/MS verification if positive	0.5 ppm each
55-18-5	N-nitrosodiethylamine (NDEA)				
621-64-7	N-nitrosodipropylamine (NDPA)				
924-16-3	N-nitrosodibutylamine (NDBA)				
100-75-4	N-nitrosopiperidine (NPIP)				
930-55-2	N-nitrosopyrrolidine (NPYR)				
59-89-2	N-nitrosomorpholine (NMOR)				
614-00-6	N-nitroso N-methyl N-phenylamine (NMPHA)				
612-64-6	N-nitroso N-ethyl N-phenylamine (NEPhA)				
Organotin Compounds		All plastics, textile, leather and artificial leather			
Various	Dibutyltin (DBT)	1 ppm each	Class of chemicals combining tin and organics such as butyl and phenyl groups. Organotins are predominantly found in the environment as antifoulants in marine paints, but they can also be used as biocides (e.g., antibacterials), catalysts in plastic and glue production, and heat stabilizers in plastics/rubber. In textiles and apparel, organotins are associated with plastics/rubber, inks, paints, metallic glitter, polyurethane products and heat transfer material.	All materials: CEN ISO/TS 16179:2012 or EN ISO 22744-1 2020	0.1 ppm each
Various	Dioctyltin (DOT)				
Various	Monobutyltin (MBT)				
Various	Tricyclohexyltin (TCyHT)				
Various	Trimethyltin (TMT)				
Various	Trioctyltin (TOT)				
Various	Tripolytin (TPT)				
Various	Tributyltin (TBT)	0.5 ppm each			
Various	Triphenyltin (TPHT)				
Ortho-phenylphenol		Mainly leather – can be found in polyester			
90-43-7	Ortho-phenylphenol (OPP)	1000 ppm	OPP can be used for its preservative properties in leather or as a carrier in dyeing processes.	All materials:: DIN 50009:2021	100 ppm
Ozone-depleting Substances		PU foam			
Various	See Regulation (EC) No 1005/2009 for a complete list.	5 ppm	Ozone depleting substances have been used as a foaming agent in PU foams as well as a dry-cleaning agent and are prohibited from use.	All materials: GC/MS headspace 120°C for 45 minutes	5 ppm
Perfluorinated and Polyfluorinated Chemicals (PFCs)		PFOA and related – Durable water repellents (DWR) on apparel and equipment. The use of C8 fluorocarbons is not permitted. The use of any DWR's based on PFCs is not permitted without written approval. Equip is working with supply chain partners to phase out all PFAS by 2025 whilst optimising product performance.			
Various	Perfluorooctane Sulfonate (PFOS) and related substances	1 µg/m2	PFOA and PFOS may be present as unintended byproducts in long-chain and short-chain commercial water, oil and stain repellent agents. PFOA may also be used in polymers like polytetrafluoroethylene (PTFE). Refer to Appendix for the full list of substances and CAS numbers included in this restriction. In addition to this list all PFOA - related substances are prohibited from use.	All Materials: EN ISO 23702-1	1 µg/m2 each
Various	Perfluorooctanoic Acid (PFOA) and its salts	25 ppb total			25 ppb total
Various	PFOA-related substances	1000 ppb total			1000 ppb total

Pesticides, Agricultural		Un-scoured cotton and other natural fibres			
Various	See The Affirm Group RSL for a complete list	0.5 ppm each	May be found in natural fibers (primarily cotton).	All materials: ISO 15913/DIN 38407 F2 or EPA 8081/EPA 8151A or BVL L 00.00-34:2010-09	0.5 ppm each
Phthalates		Deliberate use limited to PVC but contamination above limits can be found in other plastics, coatings/binders PVC must not be used without written permission. The use of PVC-free materials is preferred and phthalate-free PVC should be used where there is no practical alternative. If PVC that contains phthalates is used the listed phthalates must be avoided and its use must be approved in writing.			
28553-12-0	Di-iso-nonylphthalate (DINP)	500 ppm each Total: 1000 ppm	Esters of ortho-phthalic acid (phthalates) are a class of organic compound commonly added to plastics to increase flexibility. They are sometimes used to facilitate the moulding of plastic by decreasing its melting temperature. Phthalates can be found in: Flexible plastic components (e.g., PVC) Print pastes Adhesives Plastic buttons Plastic sleeveings Polymeric coatings Find more information about additional phthalates on the REACH SVHC list, which is updated frequently.	Sample preparation for all materials: CPSC-CH-C1001-09.4 Measurement: Textile: GC/MS, EN ISO 14389:2014 (7.1 Calculation based on weight of print only; 7.2 Calculation based on weight of print and textile if print cannot be removed). All materials except textile: GC/MS	50 ppm each
117-84-0	Di-n-octylphthalate (DNOP)				
117-81-7	Di(2-ethylhexyl)-phthalate (DEHP)				
26761-40-0	Diisodecylphthalate (DIDP)				
85-68-7	Butylbenzylphthalate (BBP)				
84-74-2	Dibutylphthalate (DBP)				
84-69-5	Diisobutylphthalate (DIBP)				
84-75-3	Di-n-hexylphthalate (DnHP)				
84-66-2	Diethylphthalate (DEP)				
131-11-3	Dimethylphthalate (DMP)				
131-18-0	di-n-pentyl phthalate (DPENP)				
84-61-7	dicyclohexyl phthalate (DCHP)				
71888-89-6	1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich				
117-82-8	Bis(2-methoxyethyl) phthalate				
605-50-5	Diisopentyl phthalate (DIPP)				
131-16-8	Dipropyl phthalate (DPRP)				
27554-26-3	Diisooctyl phthalate (DIOP)				
68515-50-4	Diisohexyl phthalate (DIHP)				
71850-09-4	Diisohexyl phthalate (DIHxP)				
68515-42-4	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)				
84777-06-0	1,2-benzenedicarboxylic acid Dipentyl ester, branched and linear				
68648-93-1	1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters or mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate; 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters; 1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters				
776297-69-9	n-Pentyl-isopentylphthalate (nPIPP)				

Polycyclic Aromatic Hydrocarbons (PAHs)		Mainly pigmented plastics, coatings/binders				
83-32-9	Acenaphthene	No individual restriction	Total: 10 ppm	PAHs are natural components of crude oil and are common residues from oil refining. PAHs have a characteristic smell similar to that of car tires or asphalt. Oil residues containing PAHs are added to rubber and plastics as a softener or extender and may be found in rubber, plastics, lacquers and coatings. PAHs are often found in the outsoles of footwear and in printing pastes for screen prints. PAHs can be present as impurities in Carbon Black. They also may be formed from thermal decomposition of recycled materials during reprocessing **Naphthalene: Dispersing agents for textile dyes may contain high residual naphthalene concentrations due to the use of low-quality naphthalene derivatives (e.g., poor-quality naphthalene sulphonate formaldehyde condensation products).	All materials: AFPS GS 2019 or EN 17132 or ISO 16190	0.2 ppm each
208-96-8	Acenaphthylene					
120-12-7	Anthracene					
191-24-2	Benzo(g,h,i)perylene					
86-73-7	Fluorene					
206-44-0	Fluoranthene					
193-39-5	Indeno(1,2,3-cd)pyrene					
91-20-3	Naphthalene**					
85-01-8	Phenanthrene					
129-00-0	Pyrene					
56-55-3	Benzo(a)anthracene	1 ppm each Child care articles: 0.5 ppm each				
50-32-8	Benzo(a)pyrene					
205-99-2	Benzo(b)fluoranthene					
192-97-2	Benzo[e]pyrene					
205-82-3	Benzo[j]fluoranthene					
207-08-9	Benzo(k)fluoranthene					
218-01-9	Chrysene					
53-70-3	Dibenzo(a,h)anthracene					
Quinoline		Polyester				
91-22-5	Quinoline	50 ppm	Found as an impurity in polyester and some dyestuffs.	All materials: DIN 54231:2022 with methanol extraction at 70°C	10 ppm	
Solvents/Residuals		Main risk areas are highlighted in bold font below				
68-12-2	Dimethylformamide (DMFa)	500 ppm	DMFa is a solvent used in plastics, rubber, and polyurethane (PU) coating – especially PU mock leather . Water-based PU does not contain DMFa and is therefore preferable.	Textiles: EN 17131:2019 All other materials: ISO 16189:2021	50 ppm each	
75-12-7	Formamide	1000 ppm each	Byproduct in the production of EVA foams.			
127-19-5	Dimethylacetamide (DMAC)		DMAC is a solvent used in the production of elastane fibers and sometimes as substitute for DMFa.			
872-50-4	N-Methyl-2-pyrrolidone (NMP)		Industrial solvent utilized in production of water-based polyurethanes and other polymeric materials. May also be used for surface treatment of textiles, resins, and metal coated plastics or as a paint stripper.			

UV Absorbers / Stabilizers		Mainly foams			
3846-71-7	UV 320	1000 ppm each	PU foam materials such as open cell foams for padding. Used as UV-absorbers for plastics (PVC, PET, PC, PA, ABS, and other polymers), rubber, polyurethane.	ISO 24040 with extraction in THF, analysis by GC/MS	500 ppm each
3864-99-1	UV 327				
25973-551	UV 328				
36437-37-3	UV 350				
2440-22-4	Drometrizole	For informational purposes only.	Used as UV Absorbers for Plastics (PVC, PET, PC, PA, ABS, and other Polymers), Rubber, and Polyurethane.		
Volatile Organic Compounds (VOCs)		Mainly Coatings, Adhesives			
71-43-2	Benzene	5 ppm	These VOCs should not be used in textile auxiliary chemical preparations. They are also associated with solvent-based processes such as solvent-based polyurethane coatings and glues/adhesives. They should not be used for any kind of facility cleaning or spot cleaning.	For general VOC screening: GC/MS head-space 45 minutes at 120 degrees C	Benzene: 5 ppm Other: 20 ppm each
75-15-0	Carbon Disulfide	Total: 1000 ppm			
56-23-5	Carbon tetrachloride				
67-66-3	Chloroform				
108-94-1	Cyclohexanone				
107-06-2	1,2-Dichloroethane				
75-35-4	1,1-Dichloroethylene				
100-41-4	Ethylbenzene				
76-01-7	Pentachloroethane				
630-20-6	1,1,1,2- Tetrachloroethane				
79-34-5	1,1,1,2- Tetrachloroethane				
127-18-4	Tetrachloroethylene (PER)				
108-88-3	Toluene				
71-55-6	1,1,1- Trichloroethane				
79-00-5	1,1,2- Trichloroethane				
79-01-6	Trichloroethylene				
1330-20-7	Xylenes (meta-, ortho-, para-)				
108-38-3					
95-47-6					
106-42-3					

A Appendix A – restricted PFCs

Perfluorinated and Polyfluorinated Chemicals (PFCs)			
CAS No.	PFC Name	CAS No.	PFC Name
	PFOS and Related Substances		PFOA and Its Salts
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	335-67-1	Perfluorooctanoic acid (PFOA)
2795-39-3	Perfluorooctanesulfonic acid, potassium salt (PFOS-K)	335-95-5	Sodium perfluorooctanoate (PFOA-Na)
29457-72-5	Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)	2395-00-8	Potassium perfluorooctanoate (PFOA-K)
29081-56-9	Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH ₄)	335-93-3	Silver perfluorooctanoate (PFOA-Ag)
70225-14-8	Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(OH) ₂)	335-66-0	Perfluorooctanoyl fluoride (PFOA-F)
56773-42-3	Perfluorooctanesulfonic acid, tetraethylammonium salt (PFOS-N(C ₂ H ₅) ₄)	3825-26-1	Ammonium pentadecafluorooctanoate (APFO)
4151-50-2	N-Ethylperfluoro-1-octanesulfonamide (N-Et-FOSA)		PFOA-related Substances
31506-32-8	N-Methylperfluoro-1-octanesulfonamide (N-Me-FOSA)		
1691-99-2	2-(N-Ethylperfluoro-1-octanesulfonamido)-ethanol (N-Et-FOSE)	39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)
24448-09-7	2-(N-Methylperfluoro-1-octanesulfonamido)-ethanol (N-Me-FOSE)	376-27-2	Methyl perfluorooctanoate (Me-PFOA)
307-35-7	Perfluoro-1-octanesulfonyl fluoride (POSF)	3108-24-5	Ethyl perfluorooctanoate (Et-PFOA)
754-91-6	Perfluorooctane sulfonamide (PFOSA)	678-39-7	2-Perfluorooctylethanol (8:2 FTOH)
		27905-45-9	1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)
		1996-88-9	1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA)

Odour	All products should be free from strong and/or unpleasant odours. Where a strong and/or unpleasant odour is detected it is the supplier's responsibility to establish the chemical causing the odour and underlying root causes. Some pieces of legislation prohibit the sale of products with strong odour and strong smelling chemicals can contribute to and unsafe working environment in stores or warehouses.
REACH Regulations (EC) No 1907/2006 SVHC's (Substances of Very High Concern)	The use of substances listed as SVHC's are not permitted without written permission. It is the supplier's responsibility to keep up to date with changes to the SVHC list which is updated twice per year and can be found on the ECHA website. Additionally the UK - REACH SVHC list must also be checked. There are some legal obligations regarding SVHC use and notification and these are based on blanket limit of 1000 ppm – it is important that suppliers understand that some SVHC's are also legally restricted at levels lower than 1000 ppm in specific end uses – and therefore SVHC screening tests must be treated with great caution. It is possible to get an SVHC 'pass' with chemicals being present at levels that are illegal according to specific restrictions in annex XVII. If any SVHCs are deliberately used or present then they must be registered in the SCIP database.
Anti-microbials with consumer benefits (e.g. freshness/ anti-odour)	There is complex legislation regarding the registration and use of anti-microbial chemicals in consumer items. The use of anti-microbial chemicals, as a customer benefit, are not permitted unless agreed in writing. All chemicals must be appropriately registered – for example according to the EU Biocidal Products Regulation. If anti-microbial product is used to deliver customer benefits, the efficacy and claimed durability must be demonstrated and full details of the active chemical has to be provided on the product label or swing tag. Marketing claims must not imply the anti-microbial works on the customer's skin as this would deem it to be a 'biocidal product' for which there are onerous registration requirements. The use of anti-microbials to stop a garment smelling categorises the garment as a 'treated article' for which there a no registration requirements for Equip.
Packaging (including transport, storage and point of sale)	It is possible that packaging that contains restricted substances can lead to failures against the RSL standards if the chemical transfers so all packaging should comply the restricted substances standards laid out in this document. Although there is no formal testing programme at this moment, a test for compliance may be requested on any item for any listed chemical at any time. Equip adopts the Afirm Group Packaging RSL and packaging must meet those standards. https://www.afirm-group.com/packaging-restricted-substance-list/ Suppliers must be familiar with relevant packaging legislation and ensure ongoing compliance. E.g. the EU Packaging & Packaging Waste Directive (94/62/EC)
Food Contact Items	Products that are intended to come into contact with food must meet specific legal requirements, such as Regulation (EC) No 1935/2004 and suppliers must provide evidence of compliance. e.g. Water bottles and whistles.
MRSL	The concept of testing chemical inventories to establish that formulations do not contain chemicals that could cause RSL failures is growing - and the industry is generally aligning to the ZDHC MRSL. Equip strongly advise component manufacturers to demand declarations of conformance to the ZDHC MRSL. As the MRSL approach matures it is anticipated that high levels of MRSL compliance within a factory inventory will lead to reduced testing demands and even exemptions.

Note on Legislation:

Compliance with the standards in the RSL should ensure an ability to trade globally. However, legislation can change rapidly and vendors and component suppliers are encouraged to notify us if they become aware of any changes that require these standards to be updated.

The UK left the European Union at the end of 2020 and adopted Reach and other pieces of chemical legislation, such as Biocidal Products Regulations, in their entirety. However, there is no guarantee of alignment in future and Equip will work to the more stringent of the two jurisdictions.

There are some standards that are not based on maximum allowable limits – such as California Proposition 65. This requires businesses to notify citizens of California if there are chemical present that potentially cause cancer, birth defects or other reproductive harm and there is a list of such chemicals with 'Safe harbour limits'. (<https://oehha.ca.gov/proposition-65/general-info/current-proposition-65-no-significant-risk-levels-nrsls-maximum>)

Compliance with this RSL should ensure compliance with Prop 65 for Equip products but the deliberate use of any chemicals listed on Prop 65 should be avoided where possible. Great care has to be exercised when agreeing any one-off exemptions for RSL non-compliance as products that are legal in some jurisdictions may not meet the criteria for Prop 65. Where any chemicals that are listed on Prop 65 are detected on any component these must be discussed with Equip teams who will either restrict sales or label the chemical content in accordance with Prop 65 obligations.

3 The Equip Restricted Substances Management Process

Equip expect all products supplied meet the requirements set out in the Equip Outdoors Equip Restricted Substance List (RSL) which is based on standards set by Oeko-Tex® 100, Bluesign REACH and other Directives.

NB It is the supplier's responsibility to ensure they are referring to the latest version of the RSL.

The standards set out in table 1 apply to all components used in all Equip products.

Design, Development and Component Selection:

Equip development teams will ordinarily communicate a design to T1 product suppliers that include details of all components in the product.

In many cases the components will be nominated by Equip and some components are purchased by Equip for use by a T1 supplier.

Equip recognise that, where we purchase or nominate components, we will carry much of the responsibility for chemical compliance with the T2 supplier directly.

However T1 suppliers are required to assist with on-going compliance monitoring.

Tier 2 Supplier - Declaration of Conformance (DoC)

Where Equip nominate a component, Equip will request a Declaration of Conformance (DoC) to be completed by Tier 2 suppliers listing the components produced for Equip product together with the certification or test report.

By completing this form, the T2 supplier is confirming all materials provided meet the RSL standards.

The information requested in this declaration should be completed in full, if information is incomplete suppliers/components will be deemed high risk and suppliers can expect additional testing obligations.

Tier 1 Supplier - Product Compliance Declaration (PCD):

Equip work very closely with suppliers at the design and development stage and ordinarily there will be instances where a T1 supplier is required to source components for themselves. In these instances it is mandatory to include all vendor-sourced components on a seasonal PCD for all new and carryover products or if a supply source or quality changes for any component.

By completing this declaration, the T1 supplier is confirming all vendor-sourced components materials used in these products meet the RSL standards.

The information requested in this declaration should be completed in full - if information is incomplete suppliers/components will be deemed high risk and suppliers can expect additional testing obligations.

T1 suppliers are required to complete and submit a seasonal PCD for all vendor-sourced components used in all products ie. all new and carryover products; prior to the manufacture of Salesman samples.

The PCD contains the following details:

- Description of the component
- Unique reference ID
- Detailed Composition
- Supplier (this may be the actual manufacturer or an agent)
- Manufacturer (where the supplier is not the manufacturer the actual facility that manufactures the component will be stated)
- Certification status (e.g. Bluesign or Oekotex 100)
- *Test status (for non-certified components details of testing including date of testing)
- Details of any special or performance finishes

*If the component does not have Oekotex or Bluesign certification it is expected the supplier will provide test results according to the risk-based test matrix in Table 2

Copies of test results and 3rd party certifications must be provided when requested by Equip.

Sign-off of Development / Salesman Samples:

As the development samples are approved for salesman samples production, the Equip team will check all components listed on the product BOM's for the season have the corresponding RSL information submitted on a seasonal DoC or PCD.

Where there is no DoC or PCD the Equip team will request this is submitted and/or require testing as per the risk-based testing matrix detailed in Table 2

Our key objective is to receive the DoC and PCD with test data on all components used in the SMS manufacture before our seasonal sales meeting.

Meeting the standards laid out in this document should ensure products are safe, legal and enable Equip to trade globally.

4

Risk-based component testing:

Equip reserves the right to request T1 suppliers conduct chemical tests for any chemicals listed in the RSL at any stage of the design, development or production process.

However, the focus will be on higher priority chemicals listed in **Table 2, below**.

Equip teams will consider accepting 'pass' test reports that have been conducted for other brands - if the RSL requirements are similar

1	Valid Oekotex 100 Certificate Valid Bluesign Certificate Valid GOTS Certificate (organic cotton only) Nominated component	Exempt
2	Factory Sourced component from nominated component manufacturer Factory Sourced component* from known, previously used component manufacturer	Red boxes only
3	Factory Sourced component from known but new component manufacturer	Red and Orange boxes
4	Factory Sourced component from unknown component manufacturer (market material or not disclosed) Factory Sourced component from component manufacturer with history of failure	Red , Orange and Blue boxes
5	Valid test report <12 months old that satisfies requirements in 2,3,4 above	Exempt

*For nominated or previously used component manufacturers, discretion may be applied by Equip teams where the same materials and process are used. For example the 'same' fabric of a different weight.

KEY	
	Relatively high risk of chemical being found in this material
	Medium risk of chemical being found in this material
	Theoretical, but low risk of chemical being found in this material
	No realistic risk of failure - no testing required unless specially requested

Testing notes:

- 1: Azo amines – Do not test whites
- 2: Lead and Cadmium – Pigmented items only
- 3: Phthalates -PVC or unknown composition only
- 4: PAH – Pigmented items only
- 5: Disperse Dyes - Polyester only. Do not test whites
- 6: PFAS – Only test where PFC-based DWR's have been applied
- 7: DMFa - PU-based or unknown composition only
- 8: Bisphenol A – Polycarbonate only
- 9: Bisphenol A - Epoxy resins only
- 10: Quinoline – Polyester only
- 11: FR – only test where an FR finish has been deliberately applied
- 12: Styrene – Polystyrene only
- 13: VCM – PVC only
- 14: Bisphenol A – Recycled polyester only. PROP 65 warning label where detected
- 15: Chlorinated Benzenes and Toluenes - Polyester only
- 16: Organotins – rubberised PU coatings where formulations are mixed on-site
- 17: Organotins – PU
- 18: Formamide – EVA only
- 19: DMFu – only test post shipment
- 20: Chrome VI – after-chromed wool only
- 21: OPP – polyester only

	Leather (uncoated)	Coated Leather	Mock Leather (textile backing with PU/PVC coating)	Textiles without coatings or performance finish	Coated / Performance Finish/ Pigment Printed Textiles	Insulation (Synthetic)	Insulation (Feathers)	Polypropylene Textiles	Plastics	Foams	Metals	Non-Textile Coatings	Adhesives, Fusing, Laminates
Acetophenone and 2-phenyl 2- propanol										20			
pH													
APEO													
Azo Amines				1	1								
Bisphenol A				14	14	14			8				9
SCCP / MCCP													
Chlorophenols													
Chlorinated Benzenes and Toluenes				15	15								
DMFu	19	19											
Skin Sensitising Dyes			5	5	5								
FR Chemicals					11								
Formaldehyde													
Chrome VI				20	20								
Extractable Heavy Metals													
Lead (total)		2			2			2		2			
Cadmium (total)		2			2			2		2			
Nickel (release)													
Styrene									12			12	
VCM			13		13				13			13	
Organotins												16	17
OPP			21	21	21								
PFAS					6	6	6						
Phthalates		3	3		3				3	3		3	
PAH		4	4		4			4	4	4		4	
Quinoline			10	10	10								
DMFa		7	7		7								6
DMAC / NMP													
Formamide									18	18			
UV Stabilisers													
VOC's													

Material Types

	Examples
Leather (uncoated)	Plain, dyed leather with no extra coating applied
Coated Leather	Leather with added coating e.g. patent leather, or leather with a performance finish such as DWR or pigment print applied
Mock Leather	Imitation / Fake / Mock leather used in place of real leather. PU or PVC coating on textile backing
Textiles without coatings or performance finish	Basic, dyed textiles with specific performance attributes e.g. plain t-shirts, polyester or coat linings, pocket bags. Fabrics that are printed with dyes i.e. no binders or coatings used e.g. Cotton, Polyester, Nylon
Coated / Performance Finish/ Pigment Printed	Textiles with performance finishes applied (e.g. Nylon shell with DWR, moisture wicking), Textiles with coatings applied for performance or aesthetics. Pigment printed textiles e.g. printed cotton T-shirts, Hot-peel or Cold-peel transfers
Insulation (synthetic)	Insulation for coats and bags e.g. polyester or recycled fill
Insulation (feathers)	Insulation for coats and bags e.g. Duck, Goose
Polypropylene Textiles	Textiles made from polypropylene – dope dyed
Plastics	Multiple types of plastic used in various components – clips, sliders, zips, eyelets, toggles e.g. POM - Polyoxymethylene HDPE – High Density Polyethylene LDPE – Low Density Polyethylene ABS – Acrylonitrile Butadiene Styrene TPU – Thermo Plastic Polyurethane PC - Polycarbonate TPR – Thermo Plastic Rubber PA – Polyamide PP – Polypropylene PET - Polyethylene terephthalate
Foams	Foams primarily used in packs but can be used in clothing e.g. EVA Foam Closed Cell Foam Open Cell Foam Polyurethane (PU) Foam Polyethylene (PE) Foam PVC Foam Atilon
Metals	Various components – zips, clips, eyelets, toggles,
Adhesives, Fusing, Laminates	Any components that are bonded before or after product assembly – and the adhesives that are used for this purpose. Components can be impregnated with adhesive or adhesive applied separately

Due diligence testing:

Each season Equip teams will conduct targeted tests on a selection of components and products to monitor on-going compliance with the RSL standards.

Managing Failure:

Meeting the standards laid out in this document should ensure products are safe, legal and enable Equip to trade globally.

All failures of risk-based and due diligence testing will be judged individually - there may instances where a product or component fails a specific test but the Equip team deem it to be safe and legal, and so accept it, subject to a satisfactory corrective action plan for future production being in place. Attention must be paid to all global legislation, including Prop 65, when making such judgements.

There may be other instances where a failure results in inability to manufacture, ship, inability to place on the market and even product recalls. Failures that result in lost sales may incur financial penalties.



Note on Timing of Testing:

The Equip product development process involves sampling, prototypes, product selection and range sign-off ; inevitably there is some redundancy in terms of styles being developed that are not produced in bulk. The aim should always be to build products with components that are known to be compliant but new components will be introduced on an on-going basis. The recommendation is to test as early as possible in the critical path whilst trying to minimise the amount of speculative testing of components that may not make it into confirmed ranges.

On the basis that testing may be required to be conducted prior to product assembly, a contingency should be built in for component failure and remediation/re-sourcing.

However, if failures are detected later in the critical path and this has an impact on product deliveries, suppliers will be held accountable for any loss of sales.



Note on Approved Laboratories:

International recognised laboratories only.



Note on Composite Tests:

Testing costs can be reduced by testing multiple components in a single test. The number of components that can be tested depends on the limit of detection of the test (which can vary from lab to lab) and the maximum allowable limit. Composite testing is encouraged and labs should be trusted to make sensible decisions as to when it is appropriate. Where composite tests give rise to concern then each individual component must be re-tested individually.



Note on Product vs Component Tests:

Some laboratories provide significant discounts if every component in a product is tested. This is in part due to their ability to conduct composite tests and is also due to reduced admin.

Consideration should be given to negotiating costs for specific product types (the cost for a t-shirt will be lower than for a backpack) in order to reduce testing costs.



EQUIP
OUTDOOR TECHNOLOGIES UK LTD