



WESTWING

Textiles and Rugs  
Restricted Substances  
List (RSL)

NOVEMBER 2020

# Restricted Substances List (RSL)

## Chemical compounds and substances for Rugs and Textiles (incl. Upholstery Textiles)

This requirement document describes WESTWING bans and restrictions on certain chemical compounds and substances due to national or international regulations and/or health and environmental concerns defined by WESTWING.

The purpose of WESTWING requirements concerning chemical substances in WESTWING products is to:

- minimize harmful effects to customers' health and to the environment from WESTWING products.
- ensure compliance of WESTWING products with health and environmental regulations in all WESTWING markets.

Unless otherwise stated, the requirements are valid for each separate homogeneous material in the product.

This document will be updated regularly.

Classification	Restricted Substances	Cas No.	Potential Uses	Testing Method	Regulation / Limit Value
Formaldehyde	Formaldehyde	50-00-0	Used in textiles as an anti-creasing and anti-shrinking agent. It is also often used in polymeric resins. Sources: Easy care treatment, cross-linking agent, preservatives, fix agents , adhesives & glues.	All materials except leather: ISO 14184-1 Leather: ISO 17226-1/-2	EU REACH ANNEX XVII Entry 72 CMR Substances  By way of derogation, in relation to the placing on the market of formaldehyde [CAS No 50-00-0] in jackets, coats or upholstery, the relevant concentration for the purposes of paragraph 1 shall be 300 mg/kg during the period between 1 November 2020 and 1 November 2023.  Baby (<=36months):16mg/kg, non baby: - direct skin contact: 75mg/kg - without skin contact: 300mg/kg (commercial requirements for carpet)
Acidic and Alkaline Substances	pH value	various	To avoid irritation or chemical burns to the skin, the pH value of products must be in the range of human skin—approximately pH 5.5.  Usually for white or uncoloured textile, pH is 4.0~5.5 to avoid yellowing.	Textile and artificial leather: ISO 3071 Leather: ISO 4045	No legal requirement in EU incl. Switzerland  Westwing requirement: all carpets: 4.0-9.0 ( without direct skin contact) all carpets: 4.0-7.5 ( with direct skin contact) carpet with POD backing: 4.0-9.0 mandatory for Westwing
Organotin Compounds	Tributyltin (TBT) Triphenyltin (TPhT) Trimethyltin (TMT) Trioctyltin (TOT) Tricyclohexyltin (TCyHT) Dibutyltin (DBT) Dioctyltin (DOT)	various various various various various various various	Organotins can 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.	Acid digestion, ICP-OES for Tin screening  If Tin > 0.1%, CEN ISO/TS 16179 or Solvent Extraction, GC-MS Analysis for further confirmation	EU REACH ANNEX XVII Entry 20  Sum of TBT, TPhT, TMT,TOT,TCyHT: 0.1% (1000mg/kg)by weight of Tin;  DBT & DOT Each: 0.1%( 1000mg/kg) by weight of Tin
AZO Dyes and Arylamine Salts	4-Amino azobenzene o-Aminoazotoluene 4-Aminodiphenyl 2-Amino-4-nitrotoluene o-Anisidine Benzidine p-Chloroaniline 4-Chloro- o -toluidine p-Cresidine 2,4-Diaminoaniso	60-09-3 97-56-3 92-67-1 99-55-8 90-04-0 92-87-5 106-47-8 95-69-2 120-71-8 615-05-4	Azo dyes and pigments are colorants that incorporate one or several azo groups (-N=N-) bound with aromatic compounds, can be found in disperse dye, reactive dye, direct dye, acid dye etc. Thousands of azo dyes exist, but only those which degrade to form the listed cleavable amines are restricted.	All materials except Leather: EN ISO 14362-1 Leather: EN ISO 17234-1 p-Aminoazobenzene: All materials except Leather: EN ISO 14362-3 Leather: EN ISO 17234-2	EU REACH ANNEX XVII Entry 43 #EU REACH ANNEX XVII Entry 72 CMR Substances  each 30mg/kg of 22 azo dyes & related salts  *Westwing requirement: textile/leather/paint/print/coating/feather/down/wood/paper/natural straw [Excl white color] of prod'ts shall have <= 20 mg/kg of 24 azo dyes & 4 related salts.

Classification		Restricted Substances	Cas No.	Potential Uses	Testing Method	Regulation / Limit Value
		4,4'-Diaminodiphenylmethane	101-77-9			
		3,3'-Dichlorobenzidine	91-94-1			
		3,3'-Dimethoxybenzidine	119-90-4			
		3,3'-Dimethylbenzidine	119-93-7			
		3,3'-Dimethyl-4,4'-diamino-diphenylmethane	838-88-0			
		4,4'-Methylene-bis-(2-chloroaniline)	101-14-4			
		2-Naphthylamine	91-59-8			
		4,4'-Oxydianiline	101-80-4			
		4,4'-Thiodianiline	139-65-1			
		2,4-Toluenediamine	95-80-7			
		o-Toluidine	95-53-4			
		2,4,5-Trimethylaniline	137-17-7			
		2,4-Xylidine *	95-68-1			
		2,6-Xylidine *	87-62-7			
		4-Chloro-o-toluidinium chloride #	3165-93-3			
		2-Naphthylammoniumacetate #	553-00-4			
		4-Methoxy-m-phenylene diammonium sulphate #	39156-41-7			
		2,4,5-Trimethylaniline hydrochloride #	21436-97-5			
Heavy Metals	Total Heavy Metals	Cadmium (Cd) and its compounds	7440-43-9	Cadmium compounds may be used as pigments (especially in red, orange, yellow and green); as a stabilizer for PVC; and in fertilizers, biocides, and paints.	Acid Digestion Method, ICP-OES	EU REACH ANNEX XVII Entry 23  Paints on painted article: 1000mg/kg Other plastic material: 100mg/kg Metal part in jewelry:100mg/kg (expressed as Cd metal)
		Lead (Pb) and its compounds	7439-92-1	May be associated with alloys, plastics, paints, inks, pigments and surface coatings.	Acid Digestion Method, ICP-OES If the content of total Pb >= 500mg/kg, additional testing for Pb release will be conducted according to EN 16711-3 for applicable condition.	EU REACH ANNEX XVII Entry 63  500mg/kg for jewelry product 500mg/kg or lead release <= 0.05 µg/cm²/h ( for articles or accessible parts thereof may, during normal or reasonably foreseeable conditions of use, be placed in the mouth by children. (expressed as Pb metal)
	Extractable Heavy Metals	Cadmium and its compounds	—	Cadmium compounds may be used as pigments (especially in red, orange, yellow and green); as a stabilizer for PVC; and in fertilizers, biocides, and paints.	EN 16711-2	EU REACH ANNEX XVII Entry 72 CMR Substances  each 1mg/kg (expressed as metal)
		Arsenic and its compounds	—	Arsenic and its compounds can be used in preservatives, pesticides, and defoliants for cotton, synthetic fibers, paints, inks, trims, and plastics.		
		Lead and its compounds	—	May be associated with alloys, plastics, paints, inks, pigments and surface coatings.		
		Chromium VI compounds	—	Chromium VI may be used in the “after-chroming” process for wool dyeing (Chrome salts applied to acid-dyed wool to improve fastness).	EN 16711-2, ISO 17075-1 or -2 for Cr VI confirmation	
	Chromium VI	Chromium VI	18540-29-9	Though typically associated with leather tanning	EN ISO 17075-1/-2	EU REACH ANNEX XVII Entry 47  Leather article/part coming into contact with skin: 3mg/kg
	Nickel Release	Nickel Release (Ni)	7440-02-0	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.	EN 12472 and EN 1811	EU REACH ANNEX XVII Entry 27  Prolonged skin contact: 0.05 µg/cm²/week

Classification		Restricted Substances	Cas No.	Potential Uses	Testing Method	Regulation / Limit Value
	Toxic Elements in Packaging Components	Pb+Cd+Hg+Cr VI	—	—	Acid Digestions followed by ICP/AAS Analysis, UV-Visible Spectrometer	Directive 94/62/EC Sum (Pb+Cd+Hg+Cr VI): 100mg/kg
Chlorinated Paraffins		Short-chain Chlorinated Paraffins (SCCPs) (C10-C13)	85535-84-8	Can be used as softeners, flame retardants, or fat-liquoring agents in leather production; also as a plasticizer in polymer production.	ISO 18219	POP's regulation (EU) 2019/1021  1500mg/kg
Chlorophenols		Pentachlorophenol (PCP)	87-86-5	Chlorophenols are polychlorinated compounds used as preservatives or pesticides. PCP can also be used as in-can preservatives in print pastes and other chemical mixtures.	§ 64 LFGB B 82.02-08	EU REACH ANNEX XVII Entry 22: 0,1% ( 1000mg/kg) for substances or mixture  POP's regulation (EU) 2019/1021: 5 mg/kg (Detection Limit: 0.5 mg/kg)  Swiss Chemical Risk Reduction Ordinance (ChemRRV/ORRChem) Art. 3 Appendix 1.2 and Appendix 2.17 Not used  German Food, Feed and Commodities Law §30 (LFGB §30) 5 mg/kg  Requirement Westwing: Not detected
Dimethylfumarate		Dimethylfumarate (DMFu)	624-49-7	DMFu is an anti-mold agent that may be used in sachets in packaging to prevent the buildup of mold, especially during shipping.	ISO 16186	EU REACH ANNEX XVII Entry 61 0.1mg/kg
Alkylphenol Ethoxylates (APEOs)		Nonylphenol ethoxylates (NPEOs)	9016-45-9 26027-38-3 37205-87-1 68412-54-4 1270087-87-0	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.	EN ISO 18254-1	EU REACH ANNEX XVII Entry 46a  for textile article: <100mg/kg for NPEO
Perfluorinated and Polyfluorinated Chemicals ( PFCs )	Perfluorooctane Sulfonate (PFOS) and Related Substances	Perfluorooctanesulfonic acid (PFOS)	1763-23-1	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).	EN ISO 23702-1	POP's regulation (EU) 2019/1021  sum 1 µg/m² for textile and coated material
		Perfluorooctanesulfonic acid, potassium salt (PFOS-K)	2795-39-3			
		Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)	29457-72-5			
		Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH <sub>4</sub> )	29081-56-9			
		Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(OH) <sub>2</sub> )	70225-14-8			
		Perfluorooctanesulfonic acid, tetraethylammonium salt (PFOS-N(C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> )	56773-42-3			
		N-Ethylperfluoro-1-octanesulfonamide (N-Et-N-Methylperfluoro-1-octanesulfonamide (N-Me-FOSA)	4151-50-2 31506-32-8			
		2-(N-Ethylperfluoro-1-octanesulfonamido)-ethanol (N-Et-FOSE)	1691-99-2			
		2-(N-Methylperfluoro-1-octanesulfonamido)-ethanol (N-Me-FOSE)	24448-09-7			
		Perfluoro-1-octanesulfonyl fluoride (POSF)	307-35-7			
		Perfluorooctane sulfonamide (PFOSA)	754-91-6			
	Perfluorooctanoic Acid (PFOA) and its	Perfluorooctanoic acid (PFOA)	335-67-1			EU REACH ANNEX XVII Entry 68 POP's regulation (EU) 2019/1021
		Sodium perfluorooctanoate (PFOA-Na)	335-95-5			



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	Salts	Potassium perfluorooctanoate (PFOA-K)	2395-00-8			PFOA and its salts: sum 25 ppb PFOA- related substances: sum 1000 ppb
		Silver perfluorooctanoate (PFOA-Ag)	335-93-3			
		Perfluorooctanoyl fluoride (PFOA-F)	335-66-0			
		Ammonium pentadecafluorooctanoate (APFO)	3825-26-1			
	PFOA-related Substances	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4			
		Methyl perfluorooctanoate (Me-PFOA)	376-27-2			
		Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5			
		2-Perfluorooctylethanol (8:2 FTOH)	678-39-7			
		1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)	27905-45-9			
		1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA)	1996-88-9			
Flame Retardants		Polybromobiphenyls (PBB)	59536-65-1	With very limited exceptions, flameretardant chemicals, including the entire class of Organohalogen flame retardants, should no longer be applied to materials during production.	EN ISO 17881-1/-2	EU REACH ANNEX XVII Entry 8 For in skin contact textiles articles: not used
		Tris(aziridinyl)phosphin oxide(TEPA)	545-55-1			EU REACH ANNEX XVII Entry 7 For in skin contact textiles articles: not used
		Tris (2,3 dibromopropyl) phosphate(TRIS)	126-72-7			EU REACH ANNEX XVII Entry 4 For in skin contact textiles articles: not used
		Hexabromocyclododecane (HBCDD)	3194-55-6			POP's regulation (EU) 2019/1021 0.01% ( 100mg/kg)
		Tetrabromodiphenyl ether(TetraBDE)	40088-47-9			POP's regulation (EU) 2019/1021 Sum:500mg/kg
		Pentabromodiphenyl ether(PentaBDE)	32534-81-9			
		Hexabromodiphenyl ether(HexaBDE)	36483-60-0			
		Heptabromodiphenyl ether(HeptaBDE)	446255-22-7			EU REACH ANNEX XVII Entry 67 DecaBDE: 0.1% (1000mg/kg)
		Decabromodiphenyl ether(DecaBDE)	1163-19-5			
Phthalates		Di(2-ethylhexyl)-phthalate (DEHP)	117-81-7	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 molding 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	CPSC-CH-C1001-09.4 EN ISO 14389	EU REACH ANNEX XVII Entry 51 EU REACH ANNEX XVII Entry 72 CMR Substances  Single or sum <=0.1%
		Dibutylphthalate (DBP)	84-74-2			
		Butylbenzylphthalate (BBP)	85-68-7			
		Diisobutylphthalate (DIBP)	84-69-5			
		1,2-benzenedicarboxylic acid; di-C 6-8- branched alkylesters, C 7-rich	71888-89-6			
		Bis(2-methoxyethyl) phthalate	117-82-8			
		Diisopentylphthalate	605-50-5			
		Di-n-pentyl phthalate (DPP)	131-18-0			
		Di-n-hexyl phthalate (DnHP)	84-75-3			
Polycyclic Aromatic Hydrocarbons (PAHs)		Benz[a]anthracene	56-55-3	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.	AfPS GS 2019.01 PAK	EU REACH ANNEX XVII Entry 50 EU REACH ANNEX XVII Entry 72 CMR Substances German Food, Feed and Commodities Law §30 (LFGB §30) AfPS GS 2019.01 PAK  *Follows limits in AfPS GS 2019:01 PAK  Concrete REACH and AfPS GS 2019:01 PAK Requirements: see separate Sheet
		Benz[e]acephenanthrylene	205-99-2			
		benzo[a]pyrene; benzo[d,e,f]chrysene	50-32-8			
		Benzo[e]pyrene	192-97-2			
		Benzo[j]fluoranthene	205-82-3			
		Benzo[k]fluoranthene	207-08-9			
		Chrysene	218-01-9			
		Dibenz[a,h]anthracene	53-70-3			
		*Anthracene	120-12-7			
		*Benzo[g,h,i]perylene	191-24-2			
		*Fluoranthene	206-44-0			
		*Indeno[1,2,3-cd]pyrene	193-39-5			
		*Naphthalene	91-20-3			
		*Phenanthrene	85-01-8			
		*Pyrene	129-00-0			

Classification	Restricted Substances	Cas No.	Potential Uses	Testing Method	Regulation / Limit Value
Volatile Organic Compound (VOC)	Benzene	71-43-2	VOCs are associated with solventbased processes such as solventbased polyurethane coatings and glues/adhesives.	Headspace GC-MS	EU REACH ANNEX XVII Entry 72 CMR Substances 5mg/kg
Chlorinated Aromatic Hydrocarbons	$\alpha,\alpha,\alpha,4$ -tetrachlorotoluene; p-	5216-25-1	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.	EN 17137	EU REACH ANNEX XVII Entry 72 CMR Substances each 1mg/kg
	$\alpha,\alpha,\alpha$ ,-trichlorotoluene; benzotrichloride	98-07-7			
	$\alpha$ ,-chlorotoluene; benzyl chloride	100-44-7			
Solvents	N-methyl-2-pyrrolidone (NMP)	872-50-4	Industrial solvent used in production of water-based Polyurethanes and other polymeric materials. May also be used as a surface treatment for textiles, resins, and metal-coated plastics, or as a paint stripper.	ISO/TS 16189	EU REACH ANNEX XVII Entry 72 CMR Substances each 3000mg/kg
	N,N-dimethylacetamide (DMAC)	127-19-5	Solvent used in the production of elastane fibers and sometimes as substitute for DMFa.		
	N,N-dimethylformamide (DMFa)	68-12-2	Solvent used in plastics, rubber, and polyurethane (PU) coating.		
Quinoline	Quinoline	91-22-5	Found as an impurity in polyester and some dyestuffs.	DIN 54231	EU REACH ANNEX XVII Entry 72 CMR Substances 50mg/kg
Allergenic Carcinogenic Disperse Dyestuffs	C.I. Disperse Blue 1 #	2475-45-8	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 (e.g., polyester, acetate etc.).	DIN 54231	German Food, Feed and Commodities Law §30 (LFGB §30) Not detected (detection limit : 5mg/l in extract)  #EU REACH ANNEX XVII Entry 72 CMR Substances C.I. Disperse Blue 1 C.I. Basic Red 9 C.I. Basic Violet 3 with $\geq 0.1\%$ of Michler's ketone each 50mg/kg
	C.I. Disperse Blue 3	2475-46-9			
	C.I. Disperse Blue 35	56524-77-7/56524-76-6			
	C.I. Disperse Blue 106	12223-01-7			
	C.I. Disperse Blue 124	61951-51-7			
	C.I. Disperse Red 1	2872-52-8			
	C.I. Disperse Orange 3	730-40-5			
	C.I. Disperse Orange 37/59/76	13301-61-6/12223-33-5/51811-42-8			
	C.I. Disperse Yellow 3	2832-40-8			
	C.I. Basic Red 9 #	569-61-9			
	C.I. Basic Violet 3 with $\geq 0.1\%$ of Michler's	548-62-9			
SVHC Screening (additional non mandatory SVHCs by request only)	—	—	Candidate List of substances of very high concern of for Authorisation cover AP/APEO, phthalates, flame retardants, SCCP, lead chromate pigment, DMFa, NMP, DMAc etc.	In House Method	REACH Regulation (EC) No 1907/2006 0.1% (w/w) per article/component Supplier needs to notify ECHA and WESTWING if the article contains an SVHC in quantities above one tonne per producer/importer per year and if the substance is present in those articles above a concentration of 0.1% (w/w).  WFD Directive 2008/98/EC 0.1% (w/w) per article/component Supplier needs to notify ECHA by submit SCIP notification and WESTWING if the article contains an SVHC above a concentration of 0.1% (w/w).  each 1000 mg/kg (0.1%)

Classification	Restricted Substances	Cas No.	Potential Uses	Testing Method	Regulation / Limit Value
All biocidal treated Product	—	—	Biocidal products, which are used to protect humans, animals, materials or articles against harmful organisms like pests or bacteria, by the action of the active substances contained in the biocidal product.	Due diligence	The Biocidal Products Regulation (BPR, Regulation (EU) 528/2012) -Authorized active substances -the labeling (CLP) Regulation ((EC) No 1272/2008)
PVC Product	—	—	For legal requirement conformance (total Cadmium/Organotins /Phthalates/SCCP etc.) concern.	Due diligence	Phase out PVC material.
Natural Latex Product	—	—	Can cause allergic reaction (to protein) after contacting with human skin.	Due diligence	Phase out natural latex for allergen concern.
Remark:					
1)	REACH Regulation (EC) No 1907/2006	REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals. It entered into force on 1 June 2007. REACH is a regulation of the European Union, adopted to improve the protection of human health and the environment from the risks that can be posed by chemicals, while enhancing the competitiveness of the EU chemicals industry. It also promotes alternative methods for the hazard assessment of substances in order to reduce the number of tests on animals.			
2)	EU REACH ANNEX XVII Entry 72 CMR Substances	COMMISSION REGULATION (EU) 2018/1513 of 10 October 2018 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards certain substances classified as carcinogenic, mutagenic or toxic for reproduction (CMR), category 1A or 1B			
3)	BPR, Regulation (EU) 528/2012	The Biocidal Products Regulation (BPR, Regulation (EU) 528/2012) concerns the placing on the market and use of biocidal products, which are used to protect humans, animals, materials or articles against harmful organisms like pests or bacteria, by the action of the active substances contained in the biocidal product. This regulation aims to improve the functioning of the biocidal products market in the EU, while ensuring a high level of protection for humans and the environment.			
4)	POP's regulation (EU) 2019/1021	Persistent organic pollutants (POPs) are organic substances that persist in the environment, accumulate in living organisms and pose a risk to our health and the environment. They can be transported by air, water or migratory species across international borders, reaching regions where they have never been produced or used. International risk management is necessary as no region can manage the risks posed by these substances alone.			
5)	CLP Regulation (EC) No 1272/2008	The Classification, Labelling and Packaging (CLP) Regulation ((EC) No 1272/2008) is based on the United Nations' Globally Harmonised System (GHS) and its purpose is to ensure a high level of protection of health and the environment, as well as the free movement of substances, mixtures and articles.			
6)	WFD, Directive 2008/98/EC	Directive 2008/98/EC on waste (Waste Framework Directive) sets the basic concepts and definitions related to waste management, such as definitions of waste, recycling, recovery. It explains when waste ceases to be waste and becomes a secondary raw material (so called end-of-waste criteria), and how to distinguish between waste and by-products, and lays down some basic waste management principle.			





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