

Moncler Group

Product Restricted Substances List (PRSL)

February 2022, applicable from FW23

PRSL¹

Group of Substances (Individual Substances are listed in Annex 1)	Limit (mg/Kg)	Target Limit (mg/Kg)	Test Method (Always refer to the latest version of each method)
ALKYLPHENOLS (APs), ALKYLPHENOLETHOXYLATES (APEOs)			
Alkylphenol Ethoxylates (APEOs), sum	Do not use: 50; 100 (Recycled materials)	ND (1)	APEOs: ISO 18254-1; APs: ISO 21084; Leather: ISO 18218-1/2
Alkylphenols (APs), sum	5	ND (1)	
ASBESTOS FIBERS			
Asbestos fibers	ND	ND	X-ray diffractometer/SEM
BISPHENOL A			
Bisphenol A	ND (1)	ND (1)	Solvent Extraction and analysis by LC-MS
CHLORINATED PHENOLS			
PCP, its salts and esters, TeCPs, TriCPs	0,05	ND	LFGB B 82.02-08; GB/T18414.1 or GB/T 18414.2;
Other chlorophenols	0,5	ND	Leather: ISO 17070, GB/T 22808
BIOCIDES			
Dimethylfumarate (CAS 624-49-7)	ND (0,1)	ND (0,1)	ISO/TS 16186, GB/T 26713
Other Biocides	Only biocides authorized in Regulation (EU) No 528/2012 and subsequent amendments (unless more restrictive requirements are set forth elsewhere in this document)		Solvent extraction and analysis by GC-MS / LC-MS
Dioxins and Furans			
Group 1	Sum: 1 µg/kg	ND	EPA 8290
Groups 1 & 2	Sum: 5 µg/kg		
Groups 1, 2 & 3	Sum: 100 µg/kg		
Group 4	Sum: 1 µg/kg		
Groups 4 & 5	Sum: 5 µg/kg		
DYES – AZO			
Azo	ND (5)	ND (5)	EN 14362-1 EN, 14362-3, GB/T 17592, GB/T 23344; Leather: ISO 17234-1 ISO 17234-2, GB/T 19942
DYES (CARCINOGENIC, ALLERGENIC, Others)			
Carcinogenic, Allergenic, Others	ND (5)	ND (5)	DIN 54231
FLAME RETARDANTS (Substances used as flame retardants, but not only)			
Flame Retardants (SCCP and MCCP included)	ND (5)	ND (5)	GB/T 24279
Short Chain Chlorinated Paraffins (SCCP)	ND (50) Leather	ND (50) Leather	
SCCP + Medium Chain Chlorinated Paraffins (MCCP)	Sum < 50	ND	
FLOURINATED GREENHOUSE GASES			
Hydrofluorocarbons (HFC)	ND	ND	GC -MS/Headspace
Sulphur hexafluoride (SF6)			
Perfluorocarbons (PFC)			
FORMALDEHYDE			
Formaldehyde (CAS 50-00-0)	ND (16); 75 (Adult products and fur for children older than 3 years)	ND (16)	ISO 14184-1; Japanese law 112; GB/T 2912.1; Leather: ISO 17226-1, GB/T 19941; Wood: EN 717-3
GLYCOLS AND GLYCOL ETHERS			
Glycols and Glycol Ethers	ND (5)	ND (5)	Solvent Extraction and analysis by HPLC LC-MS
ISOCYANATES			
Isocyanates	ND (1)	ND (1)	EN 13130-8

Legend:

ND: not detectable; unless otherwise specified, the detection limit is that of the test method indicated.

PRSL: Product Restricted Substances List

¹In case of conflict between the requirements set forth by the PRSL and the requirements provided by mandatory regulations/standards, the most restrictive requirements shall prevail

Group of Substances (Individual Substances are listed in Annex 1)	Limit (mg/Kg)	Target Limit (mg/Kg)	Test Method (Always refer to the latest version of each method)
HEAVY METALS - Total content			
Arsenic	ND (1)	ND (1)	CPSC-CH-E1002-08.3; CPSC-CH-E1001-08.3; CPSC-CH-E1003-09.1; Leather: CPSC-CH-E1002-08; QB/T 4340; Cr (VI): If Cr is found with the above methods, test for Cr(VI) with ISO 17075
Cr (VI)	ND	ND	
Mercury and its compounds	ND (0,5)	ND (0,5)	
Cadmium	40 ³ (Coatings and Total); 100 (glass/crystal in products for Adults)	ND (10)	
Lead ²	40 ³ (Coatings and Total); 100 (glass/crystal in products for Adults)	ND (10)	
HEAVY METALS - Extractable (not applicable to metal components)			
Antimony	< 30	ND (5)	EN 16711-2, if Cr > 0,5 mg/kg is found, test for Cr(VI) with ISO 17075-1; GB/T 17593.1; GB/T 17593.2; GB/T 17593.3; GB/T 17593.4; Leather: ISO 17072-1
Arsenic	< 0,2	ND (0,02)	
Lead	< 0,2; < 0,8 (Adults)	ND (0,1)	
Cadmium	< 0,1	ND (0,02)	
Chromium ⁴	< 1; < 2 (Adults)	ND (0,1)	
Cr(VI)	< 0,5 (Leather excluded)	ND (0,5)	
Cobalt	< 1; < 4,0 (Adults)	ND (0,1)	
Copper	< 25; < 50 (Adults)	ND (5)	
Mercury and its compounds	< 0,02; < 0,05 Leather	ND (0,02)	
Nickel	< 0,5; < 1 (Adults)	ND (0,1)	
Zinc	< 50	ND (5)	
Cr (VI) leather	ND (< 3)	ND (< 3)	ISO 17075-2 and ISO 10195 (A1 or A2)
MIGRATION OF CERTAIN ELEMENTS			
Antimony (Sb)	60	ND	ISO 8124-3
Arsenic (As)	25		
Barium (Ba)	1000		
Cadmium (Cd)	75		
Chromium (Cr)	60		
Lead (Pb)	90		
Mercury (Hg)	60		
Selenium (Se)	100		
MICROBIOLOGICAL ACTIVITY			
Microbiological activity	None	None	EN 1884
NICKEL RELEASE			
Nickel release	< 0,28 µg/cm ² /week (skin contact); <0,11 µg/cm ² /week (body piercing jewelry or other objects inserted into pierced parts of the human body)	ND	EN 1811 + EN 12472
N-NITROSAMINE			
N-Nitrosamine	0,5	0,5	Rubber and plastics: GB/T 24153
ORGANOTIN COMPOUNDS			
TBT, TPhT	ND (0,1)	ND (0,1)	ISO/TS 16179
Others, sum	0,5; 1 (Adults)	ND (0,1)	
PESTICIDES			
Pesticides	ND (0,1 each), Sum: <1		EPA 8081 + EPA 8141 + EPA 8151
PFCs (Perfluorinated/Polyfluorinated Compounds)			
PFOS	Do not use: ND (1 µg/m ²)	Do not use: ND (1 µg/m ²)	CEN/TS 15968; Leather: ISO 23702-1
PFOA and PFOA related substances	Do not use: ND (1 µg/m ² & 25 ppb)	Do not use: ND (1 µg/m ² & 25 ppb)	
Other PFCs ⁵	Do not use: ND (1 µg/m ² ; 10 µg/m ² (FTOHS))	Do not use: ND (1 µg/m ² ; 10 µg/m ² (FTOHS))	

Legend:

ppb: µg/Kg

² Neoprene/PVC: 30 mg/Kg³ glass/crystal in products for children included⁴ Not applicable to chromium tanned leather⁵ Applicable to Stone Island, Moncler Born To Protect and selected products/items/articles. Through research and innovation, Moncler Group is working to extend this across other products/items/articles exploring the best technologies available in the market and is employing rigorous testing and monitoring processes.

Group of Substances (Individual Substances are listed in Annex 1)	Limit (mg/Kg)	Target Limit (mg/Kg)	Test Method (Always refer to the latest version of each method)
pH			
pH	Skin contact: 4,0-7,5; No skin contact: 4,0-9,0 Leather: 3,5-7,5 (ΔpH < 0,7)	Skin contact: 4,0-7,5; No skin contact: 4,0-9,0 Leather: 3,5-7,5 (ΔpH < 0,7)	ISO 3071; GB/T 7573; Leather: ISO 4045
PHTHALATES			
Phthalates (Group 1)	25 each	DIDP and DINP: ND (10), Others: ND (5)	CPSC-CH-C1001-09.4
Other Phthalates, sum	250		
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)			
Naphthalene	<1; <2 (Adults)	ND (0,2)	AfPS GS 2019:01 PAK
Group 1	0,5 each and <1 sum; 1 each and <5 sum (Adults)		
Group 2, sum	< 1; < 2 (Adults)		
Group 1 + Group 2 + Group 3	Sum <1; Sum <5 (Adults)		
QUINOLINE			
Quinoline (CAS 91-22-5)	25	ND (2)	DIN 54231
SOLVENTS			
Chlorinated Benzenes and Toluenes, sum	1	ND (0,5)	EN 17137
Chlorinated Solvents, sum	50	ND (0,5)	HS-GC-MS
N,N-dimethylacetamide (DMAc)	300; 500 (Adults)	300; 500 (Adults)	ISO 16189
N,N-dimethylformamide (DMF)	50; 200 (Adults)	50; 200 (Adults)	
N-methyl-2-pyrrolidone (NMP)	100; 500 (Adults)	100; 500 (Adults)	
Vinyl chloride monomer			
Vinyl chloride monomer	ND (1)	ND (1)	GB/T 4615
VOC			
Benzene	5	ND (1)	Screening GC/MS headspace after 45 min at 120°C
Other VOC	250	ND (5)	
Volatile matter			
Volatile matter	20 g/m ²	20 g/m ²	GB 21550

Moncler Group

Manufacturing Restricted Substances List (MRS defense)

February 2022, applicable from FW23

Monitoring input chemicals is key to prevent contamination of products/materials and waters/sludges. The Manufacturing Restricted Substances List (MRLS) specifies the list of substances that the suppliers and their supply chain shall monitor in production and that shall not be used in the manufacturing of, nor be present in, chemicals, waters/sludges, raw materials or products.

Suppliers are encouraged to adopt the ZDHC MRLS, where applicable and in its most updated version. In addition, suppliers are requested to follow the below points.

The MRLS is applicable to all tiers of the manufacturing processes involved in production of materials/products. Listed substances are to be monitored in chemicals, various input/output waters and sludges. For parameters, methods and minimum detection limits for water and sludges testing, please refer to the following MRLS table; for chemical formulations substances, methods and minimum detection limits, please refer to the Moncler Group PRSL. Please note that legal requirements for conventional parameters in the countries of production/manufacturing are mandatory; in case of conflict between the requirements set forth by the MRLS/PRSL and the requirements provided by the mandatory regulations/standards, the most restrictive requirements shall prevail.

Suppliers are encouraged to proactively develop an environmental and chemical management system, and are asked to control/test chemicals/waters/sludges and to maintain up-to-date, and give evidence of, their chemical inventories and related supporting documents (e.g. lots, Safety data sheets, etc.), including chemicals used for other purposes, such as for cleaning, maintenance, etc.

Chemical formulations to be tested must be selected considering chemicals composition, materials to be treated (for instance fabric, leather, plastics, etc.), type of use in the production process (auxiliary/colorant/finishing agents, etc.), documentation availability, frequency and amount of use in the supply chain, as well as peculiarities and refinement of specific intended effects. Specific chemicals can be sampled during audits/follow-ups or case studies as well. Depending on the kind of production, auditors are requested to sample suspect and/or the most used chemical products from the audited company.

A deep chemical formulations screening/testing is strongly recommended (at least seasonally). Traceability of lots is key.

Water tests aim at sampling and testing production incoming and untreated discharge waters, where appropriate (each additional sampling point is assessed on a case-by-case basis, e.g. sludges, additional sources of untreated water, etc.). Water/sludge samples are tested to check the presence of the involved chemical groups and additional substances/parameters, this kind of screening process helps identifying the use of these chemicals in the manufacturing processes and identifying possible contamination sources.

In case any monitored substance is found in chemical formulations/waters/sludges, suppliers must:

- verify these substances, and related quantities, do not compromise compliance with the Moncler Group requirements set forth in the PRSL and any other mandatory requirements;
- clarify their source and apply corrective actions, improving, for instance, their chemical inventory, water input/output, substitute chemicals and materials, etc.

When any material/product fails to comply with Moncler Group PRSL, suppliers are requested to deepen and clarify the source of the problem, testing materials, chemicals/formulations and, where needed, waters/sludges and give evidence of the resolution and the implemented steps.

MRSI¹

Groups of Substances (individual substances are listed in Annex 1)	Reporting Limits		Test Methods ²	
	Water (µg/L)	Sludge (mg/Kg)	Water	Sludge
ALKYLPHENOLS (APs), ALKYLPHENOL ETHOXYLATES (APEOs)				
Alkylphenol Ethoxylates (APEOs), sum	1	0.2	ASTM D7065	ASTM D5369, EPA 3540C, ASTM D7065; ISO 18254-1
CHLORINATED PHENOLS				
Chlorinated phenols	0.5	0.025	EPA 8270D	ASTM D5369, EPA 3540C, EPA 8270D, ISO 14154
DYSE -AZO				
Azo	0.1	0.1	DIN 38407-16, EN 14362-1/3 (modified)	DIN 38407-16, EN 14362-1/3 (modified)
DYES (CARCINOGENIC, ALLERGENIC, Others)				
Carcinogenic, allergenic, others	0.1	0.1	EP 3510C + EPA 8321B:2007 (ref. DIN 54231)	ISO 16373
FLAME RETARDANTS				
PBBs, PBDEs, TEPA, TCEP	0.05	0.25	EPA 527, EPA 8321B	ASTM D5369, EPA 3540C, EPA 527, EPA 8321B, ISO 22032
Other flame retardants	0.5			
SSCPs, MCCPs	0.4	0.03	ISO/PRF 12010	ASTM D5369, EPA 3540C, ISO/PRF 12010
HEAVY METALS				
Antimony	1	1		
Arsenic	1	1		
Cadmium	0.1	1		
Chromium	1	1		
Cobalt	1	1		
Copper	1	1		
Lead	1	1	EPA 3051A, EPA 6020A, EPA 3050B	EPA 3051A, EPA 6020A, EPA 3050B
Manganese	1	1		
Mercury	0.05	0.02		
Nickel	1	1		
Zinc	1	4		
CN ⁻	4	1		
Chromium (VI)	1	1	EPA 7196A	EPA 3050B
ORGANOTIN COMPOUNDS				
Organotin compounds	0.01	0.01	EN ISO 17353:2005	ASTM D5369, EPA 3540C, ISO 23161
PESTICIDES				
Pesticides	1	-	EPA 3510C + EPA 8270D + EPA 8180, 8141 and 8151; CNR IRSA 5060 MAN. 29/03	-
PFCs (PERFLUORINATED/POLYFLUORINATED COMPOUNDS)				
PFOSA, N-Me-FOSA, N-Et-FOSA, N-Me-FOSA alcohol, N-Et-FOSA alcohol	0.1	0.01	ISO 25101	ASTM D5369, EPA 3540C, DIN 38407-42
Other PFCs	0.01	0.001		
PHTHALATES				
Phthalates	1	0.2	EPA 8270	ASTM D5369, EPA 3540C, EPA 8270D
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)				
Polycyclic aromatic hydrocarbons (PAHs)	1	0.2	EPA 8270, DIN 38407-39	EPA 3540/3541 EPA 3650, EPA 8270
SOLVENTS				
Chlorinated benzenes	0.02	0.1	EPA 8260B, EPA 8270D	ASTM D5369, EPA 3540C, EPA 8260B, EPA 8270D
Chlorinated solvents	1	0.3	EPA 8260B	EPA 5021, EPA 8021B, EPA 8260B

Legend:

MRSI: Manufacturing Restricted Substances List

¹ In case of conflict between the requirements set forth by the MRLs and the requirements provided by the mandatory regulations/standards, the most restrictive requirements shall prevail² Always refer to the latest version of each test method.

Annex 1 - Substances List

ALKYLPHENOLS (AP_s) AND ALKYLPHENOLETHOXYLATES (APEO_s)

CAS No.	Substance	CAS No.	Substance
11066-49-2; 25154-52-3; 84852-15-3; 104-40-5; Various	Nonylphenol (NP), mixed isomers	140-66-9; 1806-26-4; 27193- 28-8; Various	Octylphenol (OP), mixed isomers
9016-45-9; 26027-38-3; 37205-87-1; 68412-54-4; 127087-87-0; Various	Nonylphenol ethoxylates _[1-18] (NPEO _[1-18])	9002-93-1; 9036-19-5; 68987- 90-6; Various	Octylphenol ethoxylates _[1-18] (OPEO _[1-18])

ASBESTOS

CAS No.	Substance	CAS No.	Substance
77536-66-4	Actinolite	12001-29-5; 132207-32-0	Chrysotile
12172-73-5	Amosite	12001-28-4	Crocidolite
77536-67-5	Anthophyllite	77536-68-6	Tremolite

CHLOROPHENOLS

TETRA AND PENTA CHLOROPHENOLS			
CAS No.	Substance	CAS No.	Substance
4901-51-3	2,3,4,5-tetrachlorophenol (TeCP)	87-86-5	Pentachlorophenol (PCP)
58-90-2	2,3,4,6-tetrachlorophenol (TeCP)	25167-83-3	Tetrachlorophenol (TeCP)
935-95-5	2,3,5,6-tetrachlorophenol (TeCP)	-	-
OTHER CHLOROPHENOLS			
CAS No.	Substance	CAS No.	Substance
95-57-8	2-chlorophenol	87-65-0	2,6-dichlorophenol
15950-66-0	2,3,4-trichlorophenol (TriCP)	609-19-8	3,4,5-trichlorophenol (TriCP)
933-78-8	2,3,5-trichlorophenol (TriCP)	95-77-2	3,4-dichlorophenol
933-75-5	2,3,6-trichlorophenol (TriCP)	591-35-5	3,5-dichlorophenol
576-24-9	2,3-dichlorophenol	108-43-0	3-chlorophenol
95-95-4	2,4,5-trichlorophenol (TriCP)	106-48-9	4-chlorophenol
88-06-2	2,4,6-trichlorophenol (TriCP)	25167-82-2	Trichlorophenol (TriCP)
120-83-2	2,4-dichlorophenol	3380-34-5	Triclosan
583-78-8	2,5-dichlorophenol	-	-

DIOXINS AND FURANS

Group 1			
CAS No.	Substance	CAS No.	Substance
40321-76-4	1,2,3,7,8-Pentachloro-dibenz-p-dioxin	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	1746-01-6	2,3,7,8-Tetrachlorodibenz-p-dioxin
Group 2			
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran
39227-28-6	1,2,3,4,7,8-Hexachloro-dibenz-p-dioxin	19408-74-3	1,2,3,7,8,9-Hexachloro-dibenz-p-dioxin
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran
57653-85-7	1,2,3,6,7,8-Hexachloro-dibenz-p-dioxin	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran
Group 3			
CAS No.	CAS No.	CAS No.	CAS No.
39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	35822-46-9	1,2,3,4,6,7,8-Heptachloro-dibenz-p-dioxin
3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenz-p-dioxin	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	-	-
Group 4			
CAS No.	Substance	CAS No.	Substance
109333-34-8	1,2,3,7,8-Pentabromo-dibenz-p-dioxin	67933-57-7	2,3,7,8-Tetrabromodibenzofuran
131166-92-2	2,3,4,7,8-Pentabromodibenzofuran	50585-41-6	2,3,7,8-Tetrabromodibenz-p-dioxin

Group 5

CAS No.	CAS No.	CAS No.	CAS No.
110999-44-5	1,2,3,4,7,8-Hexabromo-dibenzo-p-dioxin	110999-46-7	1,2,3,7,8,9-Hexabromo-dibenzo-p-dioxin
110999-45-6	1,2,3,6,7,8-Hexabromo-dibenzo-p-dioxin	107555-93-1	1,2,3,7,8-Pentabromodibenzofuran

DYES – AZO (FORMING RESTRICTED AMINES)

CAS No.	Substance	CAS No.	Substance
137-17-7	2,4,5-trimethylaniline	60-09-3	4-aminoazobenzene
21436-97-5	2,4,5-trimethylaniline hydrochloride	92-67-1	4-aminodiphenyl
95-68-1	2,4-xylidine	106-47-8	4-chloroaniline
87-62-7	2,6-xylidine	95-69-2	4-chloro-o-toluidine
91-59-8	2-naphthylamine	3165-93-3	4-chloro-o-toluidinium chloride
553-00-4	2-Naphthylammoniumacetate	39156-41-7	4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate
91-94-1	3,3'-dichlorobenzidine	615-05-4	4-methoxy-m-phenylenediamine
119-90-4	3,3'-dimethoxybenzidine	95-80-7	4-methyl-m-phenylenediamine
119-93-7	3,3'-dimethylbenzidine	99-55-8	5-nitro-o-toluidine
101-14-4	4,4'-methylene-bis-(2-chloro-aniline)	120-71-8	6-methoxy-m-toluidine
101-77-9	4,4'-methylenedianiline	92-87-5	Benzidine
838-88-0	4,4'-methylenedi-o-toluidine	97-56-3	o-aminoazotoluene
101-80-4	4,4'-oxydianiline	90-04-0	o-anisidine
139-65-1	4,4'-thiodianiline	95-53-4	o-toluidine

DYES – DISPERSE, CARCINOGENIC, OTHERS

CAS No.	Substance	CAS No.	Substance
561-41-1	4,4' bis(dimethylamino)-4"- (methylamino)trityl alcohol	13301-61-6	Disperse Orange 37/59/76
3761-53-3	Acid Red 26	85136-74-9	Disperse Orange 149
1694-09-3	Acid Violet 49	2872-52-8	Disperse Red 1
6459-94-5	Acid Red 114	2872-48-2	Disperse Red 11
2580-56-5	Basic Blue 26	3179-89-3	Disperse Red 17
569-64-2; 2437-29-8; 10309-95-2	Basic Green 4	61968-47-6	Disperse Red 151
569-61-9	Basic Red 9	119-15-3	Disperse Yellow 1
8004-87-3	Basic Violet 1	2832-40-8	Disperse Yellow 3
548-62-9	Basic Violet 3	6300-37-4	Disperse Yellow 7
632-99-5	Basic Violet 14	6373-73-5	Disperse Yellow 9
1937-37-7	Direct Black 38	6250-23-3	Disperse Yellow 23
2602-46-2	Direct Blue 6	12236-29-2	Disperse Yellow 39
2429-74-5	Direct Blue 15	54824-37-2	Disperse Yellow 49
28407-37-6	Direct Blue 218	54077-16-6	Disperse Yellow 56
16071-86-6	Direct Brown 95	18015-76-4	Malachite Green oxalate
573-58-0	Direct Red 28	68083-41-0	Malachite Green phosphomolybdate
2475-45-8	Disperse Blue 1	61725-50-6	Malachite Green phosphotungstomolybdate
2475-46-9	Disperse Blue 3	Navy Blue (EC number 405-665-4; Index Number: 611-070-00-2):	
3179-90-6	Disperse Blue 7	118685-33-9	Component 1: C39H23ClCrN7O12S`2Na
3860-63-7	Disperse Blue 26	Not Allocated	Component 2: C46H30CrN10O20S`3Na
12222-75-2	Disperse Blue 35	12223-33-5	Orange Disperse
12222-97-8	Disperse Blue 102	12656-85-8	Pigment Red 104
12223-01-7	Disperse Blue 106	1344-37-2	Pigment Yellow 34
61951-51-7	Disperse Blue 124	91-22-5	Quinoline
23355-64-8	Disperse Brown 1	6786-83-0	Solvent Blue 4
56524-77-7	Disperse Dark Blue 35	60-09-3	Solvent Yellow 1
2581-69-3	Disperse Orange 1	60-11-7	Solvent Yellow 2
730-40-5	Disperse Orange 3	97-56-3	Solvent Yellow 3
82-28-0	Disperse Orange 11	842-07-9	Solvent Yellow 14

FLAME RETARDANTS

CAS No.	Substance	CAS No.	Substance
21850-44-2	1,1'-(isopropylidene)bis[3,5-dibromo-4-(2,3-ibromoproxy)benzene] (BDBPT)	85535-85-9	MCCP (Medium chain Chlorinated Paraffins C14-C17)
3296-90-0	2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	2052-07-5	Monobromobiphenyl
183658-27-7	2-Ethylhexyl 2,3,4,5-Tetrabromoothate (TBB)	32536-52-0	Octabromodiphenyl ether (OctaBDE)
134237-50-6	alpha-hexabromocyclododecane	63936-56-1	Pentabromo(tetrabromophenoxy)benzene (NonaBDE)
134237-51-7	beta-hexabromocyclododecane	32534-81-9	Pentabromodiphenyl ether (PentaBDE)
5412-25-9	Bis(2,3-dibromopropyl)phosphate (BBP)	59536-65-1	Polybromobiphenyls (PBB)
26040-51-7	Bis(2-ethylhexyl) tetrabromophthalate (TBPH)	85535-84-8	SCCP (Short Chain Chlorinated Paraffins C10-C13)
1163-19-5	Decabromodiphenyl ether (DecaBDE)	79-94-7	Tetrabromobisphenol A (TBBPA)
84852-53-9	Decabromodiphenylethane	78-30-8	Tri-o-tolyl phosphate (o-TCP)
2051-24-3	Decachlorobiphenyl	13674-87-8	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)
68928-80-3	Diphenyl ether, heptabromo derivative (HeptaBDE)	13674-87-8	Tris(1,3-dichloro-isopropyl) phosphate (TDCPP)
36483-60-0	Diphenyl ether, hexabromo derivative (HexaBDE)	545-55-1	Tris(1-aziridinyl)phosphine oxide (TEPA)
40088-47-9	Diphenyl ether, tetrabromo derivative (TetraBDE)	126-72-7	Tris(2,3,-dibromopropyl)phosphate (TRIS) (TDBPP)
134237-52-8	gamma-hexabromocyclododecane	13674-84-5	Tris(2-chloro-1-methylethyl) phosphate (TCPP)
60044-26-0	Hexabromobiphenyl	115-96-8	Tris(2-chloroethyl)phosphate (TCEP)
25637-99-4; 3194-55-6	Hexabromocyclododecane 1,2,5,6,9,10-and main diastereoisomers (HBCDD)	25155-23-1	Trixyllyl phosphate
3194-55-6	Hexabromocyclododecane (HBCDD)	-	-

FLUORINATED GREENHOUSE GASES

Perfluorocarbons (PFC)			
CAS No.	Substance	CAS No.	Substance
355-25-9	Perfluorobutane - C4F10	75-73-0	Perfluoromethane - CF4
115-25-3	Perfluorocyclobutane - c-C4F8	678-26-2	Perfluoropentane - C5F12
76-16-4	Perfluoroethane - C2F6	76-19-7	Perfluoropropane - C3F8
355-42-0	Perfluorohexane - C6F14	-	-
Sulphur hexafluoride (SF6)			
2551-62-4	Sulfur hexafluoride - SF ₆	-	-
Hydrofluorocarbons (HFC)			
354-33-6	HFC-125 - C2HF5	431-63-0	HFC-236ea - CHF2CHFCF3
359-35-3	HFC-134 - C2H2F4	690-39-1	HFC-236fa - C3H2F6
811-97-2	HFC-134a - CH2FCF3	679-86-7	HFC-245ca - C3H3F5
430-66-0	HFC-143 - C2H3F3	460-73-1	HFC-245fa - CHF2CH2CF3
420-46-2	HFC-143a - C2H3F3	75-10-5	HFC-32 - CH2F2
75-37-6	HFC-152a - C2H4F2	406-58-6	HFC-365mfc - CF3CH2CF2CH3
431-89-0	HFC-227ea - C3HF7	593-53-3	HFC-41 - CH3F
75-46-7	HFC-23 - CHF3	138495-42-8	HFC-43-10mee - C5H2F10
677-56-5	HFC-236cb - CH2FCF2CF3	-	-

GLYCOLS and GLYCOL ETHERS

CAS No.	Substance	CAS No.	Substance
112-49-2	1,2-bis(2-methoxyethoxy)ethane	109-86-4	2-methoxyethanol
110-71-4	1,2-dimethoxyethane	110-49-6	2-methoxyethylacetate
110-80-5	2-ethoxyethanol	70657-70-4	2-methoxypropylacetate
111-15-9	2-ethoxyethylacetate	111-96-6	Bis(2-methoxyethyl)ether

ISOCYANATES			
CAS No.	Substance	CAS No.	Substance
02/05/2536	2,2'-methylenediphenyl diisocyanate	822-06-0	Hexamethylene diisocyanate
9016-87-9	4,4' diphenylmethanediisocyanate, isomere, homologe and mixtures	26447-40-5	Methylenediphenyl diisocyanate
5124-30-1	4,4'-methylenedicyclohexyl diisocyanate	5873-54-1	Methylenediphenyl diisocyanate (MDI)
101-68-8	4,4'-methylenediphenyl diisocyanate	-	-

N-NITROSAMINE			
CAS No.	Substance	CAS No.	Substance
924-16-3	N-nitrosodibutylamine	612-64-6	N-nitroso-N-ethylaniline
55-18-5	N-nitrosodiethylamine	614-00-6	N-nitroso-N-methylaniline
62-75-9	N-nitrosodimethylamine	100-75-4	N-nitrosopiperidine
621-64-7	N-nitrosodipropylamine	930-55-2	N-nitrosopyrrolidine
59-89-2	N-nitrosomorpholine	-	-

ORGANOTIN COMPOUNDS			
CAS No.	Substance	CAS No.	Substance
56-35-9	Bis(tributyltin) oxide	2406-68-0	Monophenyl-tin
2273-43-0	Butylhydroxyoxostannane (MBT)	1461-25-2	Tetrabutyl-tin (TeBT)
1002-53-5	Dibutyl stannane (DBT)	597-64-8	Tetraethyl-tin (TeET)
683-18-1	Dibutyltin dichloride	56573-85-4; 36643-28-4	Tributyl-tin (TBT)
75113-37-0	Dibutyltin hydrogen borate (DBB)	6056-50-4	Tricyclohexyl-tin
23120-99-2; Various	Dimethyl-tin	17272-57-0; Various	Trimethyl-tin
15231-44-4	Diocetyl-tin	250252-89-2	Triocetyl-tin (TriOT)
1011-95-6	Diphenyl-tin	668-34-8	Triphenyl-tin (TPhT)
2406-60-2	Dipropyl-tin	761-44-4; Various	Tripropyl-tin (TPT)
15231-57-9	Monooctyl-tin (MOT)	-	-

PERFLUORINATED AND POLYFLUORINATED CHEMICALS			
PFCs			
CAS No.	Substance	CAS No.	Substance
120226-60-0	1H,1H,2H,2H Perfluorododecanesulphonic acid	172155-07-6	Perfluoro-3,7-dimethyloctanoic acid (PF-3,7-DMOA)
757124-72-4	1H,1H,2H,2H Perfluorohexanesulphonic acid	29420-49-3	Perfluorobutanesulfonate K-salt (PFBS-K)
2144-53-8	1H,1H,2H,2H Perfluorooctyl methacrylate	375-73-5; Various	Perfluorobutanesulfonic acid (PFBS) and salts
647-42-7	1H,1H,2H,2H-Perfluoro-1-octanol (6:2 FTOH)	375-22-4	Perfluorobutanoic acid (PFB)
865-86-1	1H,1H,2H,2H-Perfluorododecane-1-ol (10:2 FTOH)	335-67-1	Perfluorooctane acid (PFOA)
17741-60-5	1H,1H,2H,2H-Perfluorododecylacrylat (10:2 FTA)	754-91-6	Perfluorooctanesulfonamide (PFOSA)
2043-47-2	1H,1H,2H,2H-Perfluorohexane-1-ol (4:2 FTOH)	2806-15-7	Perfluorodecanesulfonate Na-salt (PFDS-K)
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulphonic acid (1H,1H,2H,2H-PFOS)	335-76-2; Various	Perfluorodecanoic acid (PFDA) and salts
17527-29-6	1H,1H,2H,2H-Perfluorooctylacrylat (6:2 FTA)	307-55-1	Perfluorododecanoic acid (PFDoA)
34598-33-9	2H,2H,3H,3H-Perfluoroundecanoic acid (H4PFUnA)	68555-66-8	Perfluoroheptanesulfonate Na-salt (PFHpS-Na)
882489-14-7; 27854-31-5	2H,2H-Perfluorodecanoic acid (H2PFDA)	375-92-8; Various	Perfluoroheptanesulfonic acid (PFHpS) and salts
39108-34-4	3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecanesulphonic acid (8:2 FTS)	375-85-9	Perfluoroheptanoic acid (PFHpA)
1546-95-8	7H-Dodecafluoroheptanoic acid (HPFHxP)	355-46-4; Various	Perfluorohexane-1-sulphonic acid (PFHxS), and salts
67906-42-7	Ammonium henicosafluorodecanesulphonate (PFDS-NH4)	82382-12-15	Perfluorohexanesulfonate Na-salt (PFHxS-Na)
3825-26-1	Ammonium pentadecafluorooctanoate (APFO)	307-24-4	Perfluorohexanoic acid (PFHxA)
335-77-3	Henicosafluorodecanesulphonic acid (PFDS)	1763-23-1; Various	Perfluorooctane sulfonate (PFOS)
2058-94-8	Henicosafluoroundecanoic acid (PFUnA)	375-95-1	Perfluorononanoic acid (PFNA)
31506-32-8	Heptadecafluoro-N-methyloctanesulphonamide (N-Me-FOSA)	4149-60-4	Perfluorononaoate Ammonium-salt
4151-50-2	N-Ethyl-Perfluorooctanesulfonamide (N-Et-FOSA)	21049-39-8	Perfluorononaoate Na-salt
1691-99-2	N-Ethyl-Perfluorooctanesulfonamidoethanol (N-Et-FOSE)	2706-90-3	Perfluoropentanoic acid (PFPeA)
31506-32-8	N-Methyl-Perfluorooctanesulfonamide (N-Me-FOSA)	376-06-7	Perfluorotetradecanoic acid (PFTeA)
24448-09-7	N-Methyl-Perfluorooctanesulfonamidoethanol (N-Me-FOSE)	72629-94-8	Perfluorotridecanoic acid (PFTrA)
307-35-7	Perfluoro-1-octanesulfonyl fluoride (POSF)	2806-16-8	Potassium henicosafluorodecanesulphonate (PFDS-K)
PFOA RELATED SUBSTANCES¹			
CAS No.	Substance	CAS No.	Substance
2043-53-0	1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-Heptadecafluoro-10-iododecane	3102-79-2	Dichloro(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)methylsilane
678-39-7	1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH)	3108-24-5	Pentadecafluoro-octanoic acid ethyl ester
27905-45-9	1H,1H,2H,2H-Perfluorododecylacrylat (8:2 FTA)	376-27-2	Pentadecafluoro-octanoic acid methylester
678-41-1	8:2 fluorotelomer phosphate diester	33496-48-9	Pentadecafluoro-octanoicanhydride
57678-03-2	8:2 Fluorotelomer phosphate monoester	335-66-0	Pentadecafluoro-octanoyl fluoride
70887-84-2	8:2 Fluorotelomer unsaturated carboxylic acid	507-63-1	Perfluorooctyl iodide
1996-88-9	8:2 Fluorotelomer methacrylate	101947-16-4	trichloro(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)silane

¹ Any PFOA related substance (including its salts and polymers) means a linear or branched perfluoroheptyl group with the formula C7F15- directly attached to another carbon atom, as one of the structural elements. Any related substance (including its salts and polymers) having a linear or branched perfluorooctyl group with the formula C8F17- as one of the structural elements. The following substances are excluded from the definition: — C8F17-X, where X = F, Cl, Br. — C8F17-C(=O)OH, C8F17-C(=O)O-X' or C8F17-CF2-X' (where X' = any group, including salts).

In case of testing here in the table there is a list of PFOA related substances that cannot be considered exhaustive compared the request of REACH Regulation.

PESTICIDES			
CAS No.	Substance	CAS No.	Substance
93-72-1	2-(2,4,5-trichlorophenoxy)propionic acid	299-84-3	Fenchlorphos
94-75-7	2,4-Dichlorophenoxyacetic acid	51630-58-1	Fenvalerate
64628-44-0	2-chloro-N-[[[4-(trifluoromethoxy)phenyl]amino]carbonyl]benzamide	76-44-8	Heptachlor
93-76-5	2,4,5-Trichlorophenoxyacetic acid	1024-57-3	Heptachlor epoxide
99688-47-8	A mixture of isomers of: bromobenzylbromotoluene	36355-01-8	Hexabromo-1,1'-biphenyl
309-00-2	Aldrin	118-74-1	Hexachlorobenzene
2642-71-9	Azinphos-ethyl	465-73-6	Isodrine
86-50-0	Azinphos-hyl	4234-79-1	Kelevan
608-73-1	BHC or HCH	143-50-0	Kepone
4824-78-6	Bromophos-ethyl	58-89-9	Lindane
01/06/2425	Captafol	121-75-5	Malathion
63-25-2	Carbaryl	94-74-6	MCPA
57-74-9	Chlordane	94-81-5	MCPB
6164-98-3	Chlordimeform	93-65-2	Mecoprop
470-90-6	Chlorfenvinphos	10265-92-6	Metamidophos
510-15-6	Chlorobenzilate	72-43-5	Methoxychlor
1897-45-6	Chlorothalonil	298-00-0	Methyl parathion
5598-15-2	Chlorpyrifos	7786-34-7	Mevinphos
56-72-4	Coumaphos	2385-85-5	Mirex
68359-37-5	Cyfluthrin	6923-22-4	Monocrotophos
91465-08-6	Cyhalothrin	35367-38-5	N-[[[4-chlorophenyl]amino]carbonyl]-2,6-difluorobenzamide
52315-07-8	Cypermethrin	56-38-2	Parathion
53-19-0; 72-54-8	DDD	87-86-5	Pentachlorophenol
3424-82-6; 72-55-9	DDE	1825-21-4	Pentachloroanisole
50-29-3; 789-02-6	DDT	72-56-0	Perthan
78-48-8	DEF	13171-21-6	Phosphamidon
52918-63-5	Deltamethrin	1336-36-3	Polychlorinated biphenyls (PCB)
333-41-5	Diazinon	41198-08-7	Profenofos
97-17-6	Dichlofenthion	31218-83-4	Propetamphos
1085-98-9	Dichlofuanide	13593-03-8	Quinalphos
81161-70-8	Dichloro[(dichlorophenyl)methyl]benzene	82-68-8	Quintozone
76253-60-6	Dichloro[(dichlorophenyl)methyl]methylbenzene	8001-50-1	Strobane
120-36-5	Dichlorprop	297-78-9	Telodrin
115-32-2	Dicofol	731-27-1	Tolyfluanide
141-66-2	Dicrotophos	8001-35-2	Toxaphene
60-57-1	Die�drin	1582-09-8	Trifluralin
60-51-5	Dimethoate	69770-45-2	α-cyano-4-fluoro-3-phenoxybenzyl 3-[2-chloro-2-(4-chlorophenyl)vinyl]-2,2-dimethylcyclopropanecarboxylate
88-85-7	Dinoseb	959-98-8	α-Endosulfan
63405-99-2	DTTB (4, 6-Dichloro-7 (2,4,5-trichlorophenoxy)-2-Trifluoro methyl benz imidazole)	319-84-6	α-Hexachlorocyclohexane
115-29-7	Endosulfan	33213-65-9	β-Endosulfan
72-20-8	Endrin	319-85-7	β-Hexachlorocyclohexane
66230-04-4	Esfenvalerate	319-86-8	δ-Hexachlorocyclohexane
106-93-4	Ethylen dibromid	-	-

PHENYLMERCURY COMPOUNDS

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

PHTHALATES**Group 1**

CAS No.	Substance	CAS No.	Substance
85-68-7	Butyl benzyl phthalate (BBP)	28553-12-0; 68515-48-0	Di-isonyl phthalate (DINP)
84-74-2	Dibutyl phthalate (DBP)	84-75-3	Di-n-hexyl phthalate (DnHP)
84-61-7	Di-cyclohexyl phthalate (DCHP)	117-84-0	Di-n-octyl phthalate (DNOP)
84-69-5	Di-isobutyl phthalate (DIBP)	131-18-0	Dipentyl phthalate (DPENP)
26761-40-0; 68515-49-1	Di-iso-decyl phthalate (DIDP)	117-81-7	Di(ethylhexyl) phthalate (DEHP)

OTHER PHTHALATES

CAS No.	Substance	CAS No.	Substance
68515-42-4	1,2-benzenedicularboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	71850-09-4	Di-isobutylphthalate (DIHxP)
68515-50-4	1,2-Benzenedicularboxylic acid, dihexyl ester, branched and linear (DHNUP)	27554-26-3	Di-iso-octyl phthalate (DIOP)
84777-06-0	1,2-Benzenedicularboxylic acid, dipentyl ester, branched and linear (DNI PP)	605-50-5	Diisopentyl phthalate (DiPP)
71888-89-6	1,2-benzenedicularboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	131-11-3	Dimethyl phthalate (DMP)
117-82-8	Bis(2-methoxyethyl) phthalate (DMEP)	84-76-4	Dinonyl phthalate (DNP)
68515-51-5	Di-C6-10 alkylphthalates	131-16-8	Di-n-propyl phthalate (DPRP)
84-61-7	Di-cyclohexyl phthalate (DCHP)	131-18-0	Dipentyl phthalate (DPP)
68648-93-1	Di-decyl/hexyl/octyl (mixed) phthalates	776297-69-9	N-pentyl-isopentylphthalate (nP iP)
84-66-2	Diethyl phthalate (DEP)	-	-

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)**Group 1**

CAS No.	Substance	CAS No.	Substance
56-55-3	Benzo[a]anthracene	205-82-3	Benzo[j]fluoranthene
50-32-8	Benzo[a]pyrene	207-08-9	Benzo[k]fluoranthene
205-99-2	Benzo[b]fluoranthene	218-01-9	Chrysene
192-97-2	Benzo[e]pyrene	53-70-3	Dibenz[a,h]anthracene

Group 2

CAS No.	Substance	CAS No.	Substance
120-12-7	Anthracene	85-01-8	Phenanthrene
206-44-0	Fluoranthene	129-00-0	Pyrene

Group 3

CAS No.	Substance	CAS No.	Substance
2381-21-7	1-methylpyrene	192-65-4	Dibenzo[a,e]pyrene
27208-37-3	Acepyrene	189-64-0	Dibenzo[b,def]chrysene
83-32-9	Acenaphthene	191-30-0	Dibenzo[def,p]chrysene
208-96-8	Acenaphthylene	86-73-7	Fluorene
189-55-9	Benzo(r,s,t)pentaphene	193-39-5	Indeno[1,2,3cd]pyrene
191-24-2	Benzo[ghi]perylene	91-20-3	Naphthalene
27208-37-3	Cyclopenta[c,d]pyrene	192-62-5	Naphthol chrysene

SOLVENTS			
CHLORINATED BENZENES AND TOLUENES			
CAS No.	Substance	CAS No.	Substance
634-66-2	1,2,3,4 tetrachlorobenzene	108-41-8	3-Chlorotoluene
634-90-2	1,2,3,5 tetrachlorobenzene	106-43-4	4-Chlorotoluene
87-61-6	1,2,3-trichlorobenzene	94-99-5	alpha, 2,4-trichlorotoluene
95-94-3	1,2,4,5 tetrachlorobenzene	2014-83-7	alpha, 2,6-trichlorotoluene
120-82-1	1,2,4-trichlorobenzene	102-47-6	alpha, 3,4-trichlorotoluene
95-50-1	1,2-dichlorobenzene	5216-25-1	alpha, 4-tetrachlorotoluene
108-70-3	1,3,5-trichlorobenzene	81-19-6	alpha, alpha, 2,6-tetrachlorotoluene
541-73-1	1,3-dichlorobenzene	98-07-7	alpha, alpha, alpha trichlorotoluene
106-46-7	1,4-dichlorobenzene	2136-89-2	alpha, alpha, alpha, 2-tetrachlorotoluene
877-11-2	2,3,4,5,6-pentachlorotoluene	108-90-7	Chlorobenzene
2077-46-5	2,3,6-trichlorotoluene	25168-05-2	Chlorotoluene
32768-54-0	2,3-dichlorotoluene	25321-22-6	Dichlorobenzene
6639-30-1	2,4,5-trichlorotoluene	29797-40-8	Dichloromethylbenzene
95-73-8	2,4-dichlorotoluene	118-74-1	hexachlorobenzene
19398-61-9	2,5-dichlorotoluene	608-93-5	pentachlorobenzene
118-69-4	2,6-dichlorotoluene	12002-48-1	Trichlorobenzene
95-49-8	2-Chlorotoluene	100-44-7	α-chlorotoluene
95-75-0	3,4-dichlorotoluene	-	-
CHLORINATED SOLVENTS			
CAS No.	Substance	CAS No.	Substance
630-20-6	1,1,1,2-tetrachloroethane	540-59-0, 156-60-5, 156-59-2	1,2-dichloroethane cis and trans
71-55-6	1,1,1-trichloroethane	56-23-5	Carbon tetrachloride
79-34-5	1,1,2,2-tetrachloroethane	67-66-3	Chloroform
79-00-5	1,1,2-trichloroethane	75-09-2	Dichloromethane
75-34-3	1,1-dichloroethane	67-72-1	Hexachloroethane
75-35-4	1,1-dichloroethylene	76-01-7	Pentachloroethane
96-18-4	1,2,3-Trichloropropane	127-18-4	Tetrachloroethylene
107-06-2	1,2-dichloroethane	79-01-6	Trichloroethylene
OTHER SOLVENTS			
CAS No.	Substance	CAS No.	Substance
872-50-4	1-Methyl-2-pyrrolidone (NMP)	68-12-2	N,N-Dimethylformamide (DMF)
127-19-5	N,N-Dimethylacetamide (DMAc)	-	-

VOLATILE ORGANIC COMPOUNDS (VOC)			
CAS No.	Substance	CAS No.	Substance
71-43-2	Benzene	106-42-3	Para-xylene
100-41-4	Ethylbenzene	106-44-5	p-cresol
108-39-4	m-cresol	108-95-2	Phenol
108-38-3	Meta-xylene	108-88-3	Toluene
95-48-7	o-cresol	1330-20-7	Xylene
95-47-6	Orto-xylene	-	-

REACH Regulation, SVHC(Substances of Very High Concern) and authorisation list

All suppliers must periodically consult the following web pages and comply with the most updated obligations set forth in the REACH Regulation (Reg. EC 1907/2006). Particularly, suppliers must comply with their obligation to notify Moncler Group if any SVHCs are present in concentrations higher than 0.1% by weight in supplied materials/products, if more restrictive requirements are set forth elsewhere in the Moncler Group PRSL/MRSI/requirements, those apply.

SVHC: <http://echa.europa.eu/web/guest/candidate-list-table>

AUTHORISATION LIST: <https://echa.europa.eu/authorisation-list>

Further requirements are provided by the contract executed with the suppliers.