



H&M GROUP CHEMICAL RESTRICTIONS 2020

RESTRICTED SUBSTANCES LIST (RSL)

NON-COMMERCIAL GOODS (NCG), CONSTRUCTION AND PACKAGING

Global Product Compliance Department. Valid for all brands in the H&M Group.




Table of Contents

General.....	3
Commitment	3
Definitions	5
Abbreviations	5
Examples	6
ALL MATERIALS GENERAL REQUIREMENTS.....	12
TEXTILE (Natural & Synthetic), incl. pigment print and LEATHER.....	16
PLASTIC, RUBBER, SILICONE & FOAM	21
SURFACE COATING, SURFACE TREATMENT & ADHESIVES.....	23
METAL	24
PAPER & CARDBOARD.....	25
BAMBOO, WOOD, COMPOSITE WOOD, CORK, RATTAN and STRAW	26
TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE ¹⁷ , CERAMIC, PORCELAIN, GLASS & CRYSTAL	27
GENERAL REQUIREMENTS ALL ELECTRIC and ELECTRONIC EQUIPMENT	28
GENERAL REQUIREMENTS BATTERIES	31
GENERAL REQUIREMENTS CHEMICAL PRODUCTS	32
GENERAL REQUIREMENTS FOOD CONTACT PRODUCTS.....	32
Appendix A: List of restricted agricultural pesticides	34
Appendix B List of restricted PFC/PFAS.....	35
Appendix C List of restricted amines	36
Appendix D List of restricted disperse dyes	36

General

H&M Group has with concern for the health of customers as well as for the environment and working conditions, established H&M Group Chemical Restrictions for all products. H&M Group Chemical Restrictions consist of several parts with regard to different product types; this document concerns Chemical Restrictions for Non-Commercial Goods (NCG), Construction and Packaging. Each limit in H&M Group Chemical Restrictions is valid for homogeneous parts of the concerned product if not otherwise stated. **Test methods are specified in relevant part in document. In case of undated test method, the latest version is valid.**

All official documents related to chemical compliance are available on the Supplier Portal as well as on www.hmggroup.com.

Please find out more about H&M Group Chemical Management [here](#).

The official and valid version of this document is in English. Any translation of the document is prepared for reference only. H&M Group accepts no liability for any mistakes done in the translation.

Commitment

By accepting H&M Group Standard Purchase Conditions, the Supplier commits to comply with H&M Group Chemical Restrictions. The Supplier is responsible to assure compliance and to inform all their upstream suppliers and subcontractors about its content.

By accepting H&M Group Standard Purchase Conditions, each Supplier acknowledges that H&M Group reserves the right to:

- Inspect and test any product, any part of production and/or packaging, by any listed or appropriate method, at any time or at any stage of production.
- Cancel the Order, or, if the products are already delivered, return the products to the Supplier if the product, production and/or packaging do not correspond to the H&M Group Chemical Restrictions.
- Hold the Supplier responsible for any damage caused by the ordered product if the product, production and/or packaging do not correspond to the H&M Group Chemical Restrictions.
- Receive Safety Data Sheets (SDS) for all substances and preparations (dyes, colorants, solvents, chemicals, etc.) used in the production of a specific Order.
- Request the Supplier to change substances and preparations (dyes, colorants, solvents, chemicals, etc.) used in the production to comply with H&M Group Chemical Restrictions.

In the case of contradictory test results, H&M Group test results will prevail.

Cosmetic packaging

The primary packaging¹ of all cosmetic products is considered to be a part of the cosmetic product. Therefore, it must comply with both EU Cosmetic regulation and below listed restrictions and requirements. In addition, packaging of products aimed for children with play value should also follow the H&M Chemical Restrictions for Toys.

¹ The primary packaging is the packaging layer coming in direct contact with the cosmetic formulation.

Definitions

Concentration Limit	The substance must not be present in the product at concentrations above this limit.
Not Detected	The substance must not be present in the finished product at concentrations above the analytical reporting limit.
Usage ban	The substance must not be used in production and it must not be added to the product ² .
Homogeneous	Uniform composition throughout, i.e. a material that cannot be mechanically disjointed into different materials.
Kinematic Limit	Describes how fast a fluid is spread on a flat surface in relation to its mass, i.e. weight.
Reporting limit	Describes the level of detection times a safety factor selected by the laboratory that ensures repeatability and reproducibility.
Self-declaration	All chemicals used should have Safety Data Sheets, SDS, showing that no restricted substance is included. Upon request supplier must be able to present the SDS for the chemicals used in the production of the requested product. Other supporting documents such as certificates from subcontractors etc. can also be considered as a part of the SDS.
Substances defined as hazardous due to intrinsic properties.	Persistent, bioaccumulative and toxic (PBT), very persistent and very bioaccumulative (vPvB), carcinogenic, mutagenic and toxic for reproduction (CMR), endocrine disruptors (ED) or equivalent concern.

Abbreviations

CAS no	Chemical Abstracts Service number, an identification number for chemicals in this database.
CI no	Color Index number
cSt	centistokes, which is the same as 1mm ² /s. This is the unit used for kinematic viscosity.
MRSL	Manufacturing Restricted Substances List
ppm	Parts per million, which is the same as mg/kg.
Percentage	Percentage is weight by weight, % w/w
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals
SVHC	Substances of Very High Concern

² Impurities at low concentrations of these substances may be accepted only if technically unavoidable due to e.g. raw materials, formation in the manufacturing process, storage or packaging.

Examples

All details on your product must comply with H&M group Chemical Restrictions, see examples below. The examples do not claim to be complete.

Product/Material	Material Category	Comments
Refrigerant	<ul style="list-style-type: none"> - All materials - CHEMICAL PRODUCTS 	
Water additives for fan coil units	<ul style="list-style-type: none"> - All materials - CHEMICAL PRODUCTS 	
Pipe cleaning agents	<ul style="list-style-type: none"> - All materials - CHEMICAL PRODUCTS 	
Dirt-repellant coatings (e.g. nano-coatings)	<ul style="list-style-type: none"> - All materials - CHEMICAL PRODUCTS 	
Laminates	All materials, Composites	
Composites (e.g. Corian)	All materials, Composites	
Wiring	<ul style="list-style-type: none"> - All materials - ELECTRICAL & ELECTRONIC EQUIPMENT 	
Conduits	<ul style="list-style-type: none"> - All materials - ELECTRICAL & ELECTRONIC EQUIPMENT 	
Electrical outlets	<ul style="list-style-type: none"> - All materials - ELECTRICAL & ELECTRONIC EQUIPMENT 	
Electrical appliances in Back of House (e.g. dishwasher, microwave oven, TV)	<ul style="list-style-type: none"> - All materials - ELECTRICAL & ELECTRONIC EQUIPMENT 	
Doors	All materials, Fire rated materials	
MDF	All materials, Fire rated materials	
Local surface treatments	All materials, Fire rated materials	
Paint	All materials, Fire rated materials	
Fire sealants	All materials, Fire rated materials	
Insulation (glass fibre, rockwool)	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Mirror glass	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	

Window glazing & balustrades (tempered, laminated)	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Metal studs (galvanized)	<ul style="list-style-type: none"> - All materials - METAL 	
Nails, screws, nuts, bolts	<ul style="list-style-type: none"> - All materials - METAL 	
Rebar	<ul style="list-style-type: none"> - All materials - METAL 	
Piping & insulation	<ul style="list-style-type: none"> - All materials - METAL 	
Rubber mats	<ul style="list-style-type: none"> - All materials - PLASTIC, RUBBER, SILICONE & FOAM 	
Plastic mats	<ul style="list-style-type: none"> - All materials - PLASTIC, RUBBER, SILICONE & FOAM 	
Window stickers	<ul style="list-style-type: none"> - All materials - PLASTIC, RUBBER, SILICONE & FOAM 	
Lightbox cover (stretched ceiling)	<ul style="list-style-type: none"> - All materials - PLASTIC, RUBBER, SILICONE & FOAM 	
Tape (permanent applications)	<ul style="list-style-type: none"> - All materials - PLASTIC, RUBBER, SILICONE & FOAM 	
Plasterboard	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Moist-resistant plasterboard	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Minerite	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Grouting	<ul style="list-style-type: none"> - All materials 	

	<ul style="list-style-type: none"> - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Fix	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Mudding (sand based)	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Mudding (gypsum based)	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Screed (sand/cement based)	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Floor leveling (cement based)	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Concrete	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Concrete curing accelerants	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Filler agents	<ul style="list-style-type: none"> - All materials - TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE, MARBLE, CERAMIC, PORCELAIN, GLASS & CRYSTAL 	
Water based paint	<ul style="list-style-type: none"> - All materials 	

	<ul style="list-style-type: none"> - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Oil based paint	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Epoxy based paint	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Primer agents for metal structures	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Construction glue	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
PVA	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Polyurethane	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Epoxy	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Silicone	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Latex	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Acrylic	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Sealants (membrane, moist barriers)	<ul style="list-style-type: none"> - All materials - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Surface coating on metal profiles	<ul style="list-style-type: none"> - All materials 	

	<ul style="list-style-type: none"> - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Acutex tiles	<ul style="list-style-type: none"> - All materials - TEXTILE AND LEATHER 	
Plywood	<ul style="list-style-type: none"> - All materials - BAMBOO, WOOD, COMPOSITE WOOD, CORK, RATTAN and STRAW - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
OSB board	<ul style="list-style-type: none"> - All materials, Fire rated materials - BAMBOO, WOOD, COMPOSITE WOOD, CORK, RATTAN and STRAW - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Chipboard	<ul style="list-style-type: none"> - All materials - BAMBOO, WOOD, COMPOSITE WOOD, CORK, RATTAN and STRAW - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
MDF	<ul style="list-style-type: none"> - All materials - BAMBOO, WOOD, COMPOSITE WOOD, CORK, RATTAN and STRAW - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Moist-resistant MDF	<ul style="list-style-type: none"> - All materials - BAMBOO, WOOD, COMPOSITE WOOD, CORK, RATTAN and STRAW - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Masonite	<ul style="list-style-type: none"> - All materials - BAMBOO, WOOD, COMPOSITE WOOD, CORK, RATTAN and STRAW - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Wood (studs, planks etc.)	<ul style="list-style-type: none"> - All materials 	

	<ul style="list-style-type: none"> - BAMBOO, WOOD, COMPOSITE WOOD, CORK, RATTAN and STRAW 	
Veneer (wood based)	<ul style="list-style-type: none"> - All materials - BAMBOO, WOOD, COMPOSITE WOOD, CORK, RATTAN and STRAW - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Packaging and Labels		
Cosmetic primary packaging (e.g. foundation bottle)	<ul style="list-style-type: none"> - All materials - Material specific restrictions 	
Child Appealing and Children's Cosmetic	<ul style="list-style-type: none"> - All materials - Material specific restrictions 	Packaging of products aimed for children with play value should also follow the H&M Chemical Restrictions for Toys.
Aerosol products	<ul style="list-style-type: none"> - All materials - METAL - PLASTIC, RUBBER, SILICONE & FOAM 	Follow H&M group Chemical Restrictions for Aerosol Dispensers
Cosmetic pencil (e.g. eyebrow pencil)	<ul style="list-style-type: none"> - All materials - Material specific restrictions 	
Banderole/ Paper-top	<ul style="list-style-type: none"> - All materials - PAPER & CARDBOARD - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	
Care labels, hang tags, Display cards	<ul style="list-style-type: none"> - All materials - PAPER & CARDBOARD - PLASTIC, RUBBER, SILICONE & FOAM - TEXTILE (Natural & Synthetic), incl. pigment print and LEATHER 	Depending on the material used, requirements for relevant materials are applicable
Inside prints and size labels	<ul style="list-style-type: none"> - All materials - TEXTILE (Natural & Synthetic), incl. pigment print and LEATHER 	
Self-adhesive labels	<ul style="list-style-type: none"> - All materials - PAPER & CARDBOARD - SURFACE COATING, SURFACE TREATMENT & ADHESIVES 	

ALL MATERIALS GENERAL REQUIREMENTS				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
Acrylamide				
	79-06-1	0.1 % (weight)	Self-declaration	-
Antibacterial Treatment				
Silver (Ag) and its salts and compounds	7440-22-4, Various	Usage ban	Self-declaration	-
Triclocarban	101-20-2		Self-declaration	-
Triclosan	3380-34-5		Solvent extraction, derivatization followed by GC-MS analysis	10 mg/kg
Other antibacterial treatments			Self-declaration	
Alkylphenol Ethoxylates / Alkylphenols (APEO /AP)				
Nonylphenol Ethoxylates (NPE)	Various e.g. 9016-45-9 26027-38-3 37205-87-1 68412-54-4 127087-87-0	100 mg/kg	Textiles: ISO 18254-1 Leather: ISO 18218-1 Plastic, rubber, silicone, foam: ISO 18254 Modified: THF/ACN extraction followed by LC-MS EN	30 mg/kg
Octylphenol Ethoxylates (OPE)	Various e.g. 9002-93-1 9036-19-5 68987-90-6	100 mg/kg	Paper, cardboard: EN ISO 18254 Modified: Methanol extraction followed by LC-MS	
Nonylphenol (NP)	Various e.g. 104-40-5 11066-49-2 25154-52-3 84852-15-3	5 mg/kg	Textile: Methanol extraction followed by GC-MS Leather: ISO 18218-2 Plastic, rubber, silicone, foam: THF/ACN extraction followed by GC-MS	5 mg/kg
Octylphenol (OP)	Various e.g. 140-66-9 1806-26-4 27193-28-8	5 mg/kg	Paper, cardboard: EN ISO 18254 followed by GC/MS	
Asbestos				
	-	Usage ban	Self-declaration	-

ALL MATERIALS GENERAL REQUIREMENTS				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
Chlorinated paraffins				
Short-chained (SCCP) C10-C13	85535-84-8	100 mg/kg	Combined CADS/ISO 18219:2015 method V1:06/17 (extraction ISO 18219 and analysis by GC/NCI/MS)	30 mg/kg
Medium-chained (MCCP) C14-C17	85535-85-9	1000 mg/kg		
Dimethylfumarate (DMFu)				
	624-49-7	0.03 mg/kg	ISO/TS 16186	0.03 mg/kg
Flame Retardants				
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	5 mg/kg ³	Methanol extraction and LC-MS analysis	5 mg/kg
Bis(2,3-dibromopropyl)phosphate (BDBPP/BIS)	5412-25-9			
Decabromodiphenyl ether (DecaBDE)	1163-19-5		Toluene extraction and GC-MS analysis	
Hexabromocyclododecane (HBCDD)	3194-55-6		Methanol extraction and LC-MS analysis	
Octabromodiphenyl ether (OctaBDE)	32536-52-0		Toluene extraction and GC-MS analysis	
Pentabromodiphenyl ether (PentaBDE)	32534-81-9		Toluene extraction and GC-MS analysis	
Polybromobiphenyls (PBB)	Various			
Polybrominated diphenyl ethers (PBDE)	Various			
Tetrabromobisphenol A (TBBP A)	79-94-7		Methanol extraction and GC-MS analysis	
Tri-o-cresyl phosphate	78-30-8		Toluene extraction and GC-MS analysis	
Triphenyl phosphate (TPhP)	115-86-6			
Tris(1,3-dichloro-isopropyl)phosphate (TDCCP)	13674-87-8		THF/ACN extraction and LC-MS analysis	
Tris(2,3-dibromopropyl)phosphate (TRIS)	126-72-7		Methanol extraction and LC-MS analysis	
Tris(2-chloroethyl)phosphate (TCEP)	115-96-8		Toluene extraction and GC-MS analysis	
Tris-(aziridinyl)-phosphine oxide (TEPA)	545-55-1		EN ISO 17881-2	
Tris(1-chloro-2-propyl)phosphate (TCPP, TMCP)	13674-84-5		THF/ACN extraction and LC-MS analysis	
Trixylyl phosphate (TXP)	25155-23-1		EN ISO 17881-2	
Fluorinated Greenhouse gases				
EU regulation on fluorinated greenhouse gases ⁴	-	Fluorinated greenhouse gases of Annex I of the regulation are prohibited		
Odor				

³ Recycled polystyrene for use in hangers is exempt provided the PBDE's are unintentionally added – instead the limit is 1000 mg/kg (sum of PBDE's). The new limit is provisional until 1 July 2020, by when it will be re-evaluated

⁴ REGULATION (EU) No 517/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 April 2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006

ALL MATERIALS GENERAL REQUIREMENTS				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
	-	Grade 2 – not unpleasant	Smell test according to SNV 195 651	1. No odor 2. Slight odor, not unpleasant 3. Endurable odor, slightly unpleasant 4. Pestering odor, unpleasant 5. Insufferable odor, very unpleasant
Organotin compounds				
Dibutyltin (DBT)	1002-53-5	1 mg/kg	CEN ISO/TS 16179	0.05 mg/kg
Diocetyltn (DOT)	94410-05-6	1 mg/kg		
Dimethyltin (DMT)	Various	1 mg/kg		
Tributyltin (TBT)	56573-85-4	0.05 mg/kg		
Tricyclohexyltin (TCyHT)	6056-50-4			
Triocetyltn (TOT)	250252-89-2			
Triphenyltin (TPhT)	668-34-8			
Tripropyltin (TPT)	Various			
Sum of other not listed trisubstituted organotins		1 mg/kg		
Perfluorinated Compounds (PFC/PFAS) ⁵				

⁵ A list of approved water repellent treatments can be found at H&M group Supplier Portal. Impurities of Perfluorinated Compounds (PFC/PFAS) in functional finishes are accepted if technically unavoidable in the manufacturing process.

ALL MATERIALS GENERAL REQUIREMENTS				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
See Appendix B	See Appendix B	For FTOHs: 10 µg/m ² For Others: 1 µg/m ²	For FTOHs: Solvent extraction according to CEN/TS 15968 and analysis by Gas Chromatograph Mass Spectrometer (GC-MS-MS) For Others: CEN/TS 15968 Solvent extraction and analysis by Liquid Chromatograph Tandem Mass Spectrometer (LC-MS-MS)	For FTOHs: 10 µg/m ² For Others: 1 µg/m ²
Phthalates – including all other esters of ortho-phthalic acid				
Butyl benzyl phthalate (BBP)	85-68-7	500 mg/kg, per phthalate. The sum of phthalates ≤ 1000 mg/kg	Sample preparation: CPSC-CH-C1001-09.3 Measurement: Textile: GC-MS, ISO 14389 Other materials: GC/MS	Matrix dependent
Dibutyl phthalate (DBP)	84-74-2			
Di(2-ethylhexyl) phthalate (DEHP)	117-81-7			
Diisobutyl phthalate (DIBP)	84-69-5			
Diisodecyl phthalate (DIDP)	26761-40-0			
Diisononyl phthalate (DINP)	28553-12-0			
Di-n-octyl phthalate (DNOP)	117-84-0			
Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8			
Di-n-hexyl phthalate (DnHP)	84-75-3			
Dinonyl phthalate (DNP)	84-76-4			
Diethyl phthalate (DEP)	84-66-2			
Di-n-propyl phthalate (DPRP)	131-16-8			
Diisopentylphthalate (DIPP)	605-50-5			
n-Pentylisopentylphthalate (NPIPP)	776297-69-9			
Di-cyclohexyl phthalate (DCHP)	84-61-7			
Di-iso-octyl phthalate (DIOP)	27554-26-3			
Di-n-pentylphthalate (DPP)	131-18-0			
Dihexylphthalate, branched and linear	68515-50-4			

ALL MATERIALS GENERAL REQUIREMENTS				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
Dimethylphthalate (DMP)	131-11-3			
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0			
1,2-benzenedicarboxylic acid, di-C7-11-branched and linearalkyl esters (DHNUP)	68515-42-4			
1,2-benzenedicarboxylic acid,di-C6-8-branched alkyl esters,C7-rich (DIHP)	71888-89-6			
Polyvinylchloride (PVC) and similar chlorinated polymers, e.g. Polyvinylchloride and Polychloroprene (neoprene)				
Polyvinylchloride (PVC)	9002-86-2	Usage ban	Beilstein’s test and infrared spectroscopy (IR) with or without chemical separation	Qualitative
Polyvinylidenchloride	9002-85-1			
Polychloroprene	9010-98-4			
REACH SVHC Check the ECHA website for the updated list ⁶	-	1000 mg/kg in each homogeneous part of the product, except if lower limit applies as per other part of this document.		
Substances defined as hazardous due to intrinsic properties Criteria for hazardous as defined in REACH Article 57 ⁷	-	1000 mg/kg in each homogeneous part of the product, except if lower limit applies as per other part of this document.		
Primary container/package for cosmetic products		Package shall not release any substance to, and/or react with the content, i.e. package must be inert.		

TEXTILE (Natural & Synthetic), incl. pigment print and LEATHER				
Restricted substance	CAS	Limit	Test method	Reporting limit
Cationic Surfactants⁸				
Distearyldimethyl ammoniumchloride (DSDMAC)	107-64-2	10 mg/kg	Methanol extraction and analysis by LC-MS	10 mg/kg

⁶ http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

⁷ <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02006R1907-20150601&from=EN>

⁸ Impurities of Cationic Surfactants in functional finishes at low concentrations are accepted if technically unavoidable and formed in the manufacturing process.

TEXTILE (Natural & Synthetic), incl. pigment print and LEATHER				
Restricted substance	CAS	Limit	Test method	Reporting limit
Ditallowdimethyl ammoniumchloride (DTDMAC)	68783-78-8			
Dihydrogenated tallowdimethyl ammoniumchloride (DHTDMAC)	61789-80-8			
Chlorinated Organic Carriers				
Chlorobenzenes	Various	2 mg/kg, per listed substance group	DIN 54232	0.2 mg/kg
Chlororpthalenes	Various			
Chlorotoluenes	Various			
Chloroxylenes	Various			
Chlorophenols				
Pentachlorophenol (PCP) and its salts and esters	87-86-5	Sum: 0.5 mg/kg	BVL B 82.02-08 (modified) Potassium Hydroxide extraction direct LC-MS analysis or derivatization followed by GC-MS analysis	0.05 mg/kg
Tetrachlorophenol (TeCP) and its salts and esters				
2,3,4,6-Tetrachlorophenol (2,3,4,6 TeCP)	58-90-2	Sum: 0.5 mg/kg		
2,3,5,6 Tetrachlorophenol (2,3,5,6 TeCP)	935-95-5			
2,3,4,5-Tetrachlorophenol (2,3,4,5 TeCP)	4901-51-3			
Trichlorophenol (TrCP) and its salts and esters				0.05 mg/kg
2,3,4-Trichlorophenol (2,3,4 TriCP)	15950-66-0	Sum: 2 mg/kg		
2,3,5-Trichlorophenol (2,3,5 TriCP)	933-78-8			
2,3,6-Trichlorophenol (2,3,6 TriCP)	933-75-5			
2,4,5-Trichlorophenol (2,4,5 TriCP)	95-95-4			
2,4,6-Trichlorophenol (2,4,6 TriCP)	88-06-2			
3,4,5-Trichlorophenol (3,4,5 TriCP)	609-19-8			
Azo Dyes & Pigments				
See Appendix C	See Appendix C	20 mg/kg per listed amine	Textile: EN ISO 14362-1 Leather: EN ISO 17234-1 4-aminoazobenzene: Textile: EN ISO 14362-3 Leather: EN ISO 17234-2	10 mg/kg
Disperse Dyes/CI no				

TEXTILE (Natural & Synthetic), incl. pigment print and LEATHER				
Restricted substance	CAS	Limit	Test method	Reporting limit
See Appendix D	See appendix D	15 mg/kg per listed dye	DIN 54231 BVL B 82.02-08	15 mg/kg
Navy Blue or Blue colorant (Index no: 611-070-00-2) (EC no: 405-665-4)	-	10 mg/kg	DIN 54231	10 mg/kg
Other Dyes / CI no				
Acid Red 26 / 16 150	3761-53-3	75 mg/kg per listed dye	DIN 54231 BVL B 82.02-08	75 mg/kg
Basic Red 9 / 42 500	569-61-9			
Basic Violet 14 / 42 510	632-99-5			
Direct Black 38 / 30 235	1937-37-7			
Direct Blue 6 / 22 610	2602-46-2			
Direct Brown 95 / 30 145	16071-86-6			
Direct Red 28 / 22 120	573-58-0			
Solvent Yellow 1 / 11 000	60-09-3			
Solvent Yellow 2 / 11 020	97-56-3			
Solvent Yellow 3 / 11 160	97-56-3			
p-Phenylenediamine / 76 060	106-50-3	10 mg/kg	Methanol extraction and analysis by GC-MS	10 mg/kg
Aniline	62-53-3	10 mg/kg	Extraction with an organic solvent followed by GC-MS analysis	10 mg/kg
Formaldehyde	50-00-0			
Soft Home Interior Products/Interior products, excl. carpets and mats (e.g. curtains, table cloth)	-	75 mg/kg skin contact 300 mg/kg without skin contact	ISO 14184-1	5 mg/kg
Carpets and Mats	-	≤ 0.050 mg/m ² /h	GB 18587-2001 Grade B (products qualified in respect of limitations of emitted harmful substances)	As specified in test standard
Metals, Extractable amount				
Chromium VI (Cr6+) ⁹	18540-29-9	Leather: 3 mg/kg Textile: 1 mg/kg	Textile: DIN EN 16711-2 with EN ISO 17075-1:2017 if Cr is detected	0.5 mg/kg

⁹ Chromium VI is risky when used in textile manufacturing as a catalyst in the dyeing process and as a dye for wool.

TEXTILE (Natural & Synthetic), incl. pigment print and LEATHER				
Restricted substance	CAS	Limit	Test method	Reporting limit
			Leather: EN ISO 17075-1 if Total Cr is detected and EN ISO 17075-2: for confirmation in case the extract causes interference. Alternatively, EN ISO 17075-2 may be used on its own.	
Antimony (Sb)	7440-36-0	30 mg/kg ¹⁰	DIN EN ISO 16711-2	0.1 mg/kg
Arsenic (As)	7440-38-2	0.2 mg/kg		0.1 mg/kg
Chromium (Cr)	7440-47-3	1 mg/kg ¹¹		0.1 mg/kg
Cobalt (Co)	7440-48-4	1 mg/kg		0.1 mg/kg
Lead (Pb)	7439-92-1	0.2 mg/kg		0.1 mg/kg
Mercury (Hg)	7439-97-6	0.02 mg/kg		0.02 mg/kg
Nickel (Ni)	7440-02-0	1 mg/kg		0.1 mg/kg
Metals, Total amount				
Antimony (Sb)	7440-36-0	260 mg/kg ¹²	DIN EN 16711-1 microwave digestion followed by ICP determination.	1 mg/kg
Arsenic (As)	7440-38-2	1 mg/kg		
Cadmium (Cd)	7440-43-9	1 mg/kg		
Chromium (Cr)	7440-47-3	100 mg/kg ¹³		
Lead (Pb)	7439-92-1	90 mg/kg		
Mercury (Hg)	7439-97-6	0.5 mg/kg		
				0.1 mg/ kg
Octamethylcyclotetrasiloxane	556-67-2	1000 mg/kg	Solvent extraction, GC-MS analysis	50 mg/kg
Pesticides, Agricultural				
See Appendix A	See Appendix A	0.5 mg/kg each	All materials: ISO 15913/DIN 38407 F2 or EPA 8081/EPA 8151A or BVL L 00.00-34:2010-09	0.5 mg/kg each
4-Phenylcyclohexene	4994-16-5			
Carpets and mats	-	≤ 0.050 mg/m²/h	GB 18587-2001	As specified in test standard

¹⁰ For 100% polyester the *total* Sb limit applies (for 50% polyester the limit is 130 mg/kg etc.). For all other textile materials the *extractable* Sb limit applies.

¹¹ For polyamide, polyamide blends (min 5% PA) the extractable Cr limit applies. For all other materials, chromium based dyes are not accepted, and the total Cr limit applies.

¹² For 100% polyester the *total* Sb limit applies (for 50% polyester the limit is 130 mg/kg etc.). For all other textile materials the *extractable* Sb limit applies.

¹³ For polyamide, polyamide blends (min 5% PA) the extractable Cr limit applies. For all other materials, chromium based dyes are not accepted, and the total Cr limit applies.

TEXTILE (Natural & Synthetic), incl. pigment print and LEATHER				
Restricted substance	CAS	Limit	Test method	Reporting limit
			Grade B (products qualified in respect of limitations of emitted harmful substances)	
Phenols				
o-Phenylphenol (OPP)	90-43-7			
Soft Home Interior Products/Interior products	-	100 mg/kg	BVL B 82.02-08 (modified) Acetone extraction, derivatization followed by GC-MS analysis	5 mg/kg
Polychlorinated Biphenyls (PCB)	1336-36-3	The sum < 0.5 mg/kg	Solvent extraction and analysis by GC-MS	0.1 mg/kg
Polychlorinated Triphenyls (PCT)	61788-33-8			
Polyaromatic Hydrocarbons (PAH)				
Benzo(a)anthracene	56-55-3	1 mg/kg	AfPS GS 2014:01 Extraction with toluene followed by GC-MS analysis	0.2 mg/kg
Benzo(a)pyrene	50-32-8	1 mg/kg		
Benzo(b)fluoranthene	205-99-2	1 mg/kg		
Benzo(e)pyrene	192-97-2	1 mg/kg		
Benzo(g,h,i)perylene	191-24-2	1 mg/kg		
Benzo(j)fluoranthene	205-82-3	1 mg/kg		
Benzo(k)fluoranthene	207-08-9	1 mg/kg		
Chrysene	218-01-9	1 mg/kg		
Dibenzo(a,h)anthracene	53-70-3	1 mg/kg		
Indeno(1,2,3-c,d)pyrene	193-39-5	1 mg/kg		
Acenaphthene	83-32-9	No individual restriction		
Acenaphthylene	208-96-8			
Anthracene	120-12-7			
Fluoranthene	206-44-0			
Fluorene	86-73-7			
Phenanthrene	85-01-8			
Pyrene	129-00-0			
Naphthalene	91-20-3	<2 mg/kg		
Sum of all 18 PAH:	-	≤10 mg/kg		
Styrene	100-42-5			

TEXTILE (Natural & Synthetic), incl. pigment print and LEATHER				
Restricted substance	CAS	Limit	Test method	Reporting limit
Carpets and Mats	-	≤ 0.500 mg/m ² /h	GB 18587-2001 Grade B (products qualified in respect of limitations of emitted harmful substances)	As specified in test standard
Volatile Organic Compounds, Total (TVOC)				
Carpets and Mats	-	≤ 0.600 mg/m ² /h	GB 18587-2001 Grade B (products qualified in respect of limitations of emitted harmful substances)	As specified in test standard

PLASTIC, RUBBER, SILICONE & FOAM				
Restricted substance	CAS	Limit	Test Method	Reporting Limit
Bisphenols in Polycarbonate (PC)	80-05-7	Extractable amount: 3 mg/kg	Extraction: artificial sweat solution ISO 105 E04. Analysis by LC-MS	0.1 mg/kg
Chlorofluorocarbons (CFCs), Hydrochlorofluorocarbons (HCFCs)	Various	Usage ban	Self-declaration	-
Chlorophenols				
Pentachlorophenol (PCP) and its salts and esters	87-86-5	Sum 0.5 mg/kg	BVL B 82.02-08 (modified) Potassium Hydroxide extraction direct LC-MS analysis or derivatization followed by GC-MS analysis	0.05 mg/kg
Tetrachlorophenol (TeCP) and its salts and esters				
2,3,4,6-Tetrachlorophenol (2,3,4,6 TeCP)	58-90-2	Sum 0.5 mg/kg		
2,3,5,6 Tetrachlorophenol (2,3,5,6 TeCP)	935-95-5			
2,3,4,5-Tetrachlorophenol (2,3,4,5 TeCP)	4901-51-3			

PLASTIC, RUBBER, SILICONE & FOAM				
Restricted substance	CAS	Limit	Test Method	Reporting Limit
Trichlorophenol (TrCP) and its salts and esters				
2,3,4-Trichlorophenol (2,3,4 TriCP)	15950-66-0	Sum 2 mg/kg		
2,3,5-Trichlorophenol (2,3,5 TriCP)	933-78-8			
2,3,6-Trichlorophenol (2,3,6 TriCP)	933-75-5			
2,4,5-Trichlorophenol (2,4,5 TriCP)	95-95-4			
2,4,6-Trichlorophenol (2,4,6 TriCP)	88-06-2			
3,4,5-Trichlorophenol (3,4,5 TriCP)	609-19-8			
Dimethylformamide (DMFa)	68-12-2	1000 mg/kg	Ultrasound extraction using ethylacetate followed by GC-MS analysis	10 mg/kg
Formaldehyde	50-00-00	150 mg/kg	ISO 14184-1	16 mg/kg
Isocyanates				
Diphenylmethane diisocyanate (MDI)	101-68-8	Not detected: sum of listed isocyanates	ISO 10283 Extraction with a dried solvent, derivatization followed by LC/MS determination.	3 mg/kg
Hexamethylene diisocyanate (HMDI)	822-06-0			
Isophorone diisocyanate (IPDI)	4098-71-9			
Tetramethylxylene diisocyanate (TMXDI)	2778-42-9			
2,4-Toluene diisocyanate (2,4 TDI)	584-84-9			
2,6-Toluene diisocyanate (2,6 TDI)	91-08-7			
Metals, Total amount				
Cadmium (Cd)	7440-43-9	75 mg/kg	EN 146lead 02 and EN 16711-1	1 mg/kg
Lead (Pb)	7439-92-1	90 mg/kg		1 mg/kg
Mercury (Hg)	7439-97-6	0.5 mg/kg		0.1 mg/kg
Phenols				
o-Phenylphenol (OPP)	90-43-7			
Soft Home Interior Products/Interior products	-	100 mg/kg	BVL B 82.02-08 (modified) Acetone extraction, derivatization followed by GC-MS analysis	5 mg/kg
Polyaromatic Hydrocarbons (PAH)				
Benzo(a)anthracene	56-55-3	1 mg/kg	AfPS GS 2014:01	

PLASTIC, RUBBER, SILICONE & FOAM				
Restricted substance	CAS	Limit	Test Method	Reporting Limit
Benzo(a)pyrene	50-32-8	1 mg/kg	Extraction with toluene followed by GC-MS analysis	0.2 mg/kg
Benzo(b)fluoranthene	205-99-2	1 mg/kg		
Benzo(e)pyrene	192-97-2	1 mg/kg		
Benzo(g,h,i)perylene	191-24-2	1 mg/kg		
Benzo(j)fluoranthene	205-82-3	1 mg/kg		
Benzo(k)fluoranthene	207-08-9	1 mg/kg		
Chrysene	218-01-9	1 mg/kg		
Dibenzo(a,h)anthracene	53-70-3	1 mg/kg		
Indeno(1,2,3-c,d)pyrene	193-39-5	1 mg/kg		
Acenaphthene	83-32-9	No individual restriction		
Acenaphthylene	208-96-8			
Anthracene	120-12-7			
Fluoranthene	206-44-0			
Fluorene	86-73-7			
Phenanthrene	85-01-8			
Pyrene	129-00-0			
Naphthalene	91-20-3	<2 mg/kg		
Sum of 18 PAH	-	<10 mg/kg		
Polychlorinated Biphenyls (PCB)	1336-36-3	The sum < 0.5 mg/kg	Solvent extraction and analysis by GC-MS	0.1 mg/kg
Polychlorinated Triphenyls (PCT)	61788-33-8			
Styrene				
Carpets and Mats	100-42-5	≤ 0.500 mg/m²/h	GB 18587-2001 Grade B (products qualified in respect of limitations of emitted harmful substances)	As specified in test standard

SURFACE COATING, SURFACE TREATMENT & ADHESIVES				
Restricted substance	CAS	Limit	Test method	Reporting limit
Chromium VI (Cr6+)				

SURFACE COATING, SURFACE TREATMENT & ADHESIVES				
Restricted substance	CAS	Limit	Test method	Reporting limit
	18540-29-9	Usage ban	EN ISO 17075	3 mg/kg
Formaldehyde				
Shall not be added to the surface coating of the product or be formed during curing	50-00-0	Usage ban	ISO 14184-1	16 ppm
Isocyanates				
Diphenylmethane diisocyanate (MDI)	101-68-8	Not detected: sum of listed isocyanates	ISO 10283 Extraction with a dried solvent, derivatization followed by LC/MS determination.	3 mg/kg
Hexamethylene diisocyanate (HMDI)	822-06-0			
Isophorone diisocyanate (IPDI)	4098-71-9			
Tetramethylxylene diisocyanate (TMXDI)	2778-42-9			
2,4-Toluene diisocyanate (2,4 TDI)	584-84-9			
2,6-Toluene diisocyanate (2,6 TDI)	91-08-7			
Triglycidyl isocyanurate	2451-62-9	Powder coating shall not contain TGIC hardener. Contamination limit 0.1% by weight	Self-declaration	
Metals, total amount				
Cadmium (Cd)	7440-43-9	75 mg/kg	EN 14602 and EN 16711-1	1 mg/kg
Lead (Pb)	7439-92-1	90 mg/kg	CPSC-CH-E1003-09.1	1 mg/kg
Mercury (Hg)	7439-97-6	0.5 mg/kg		0.1 mg/kg
VOCs in surface treatment	Various	Applied amounts of actual VOC components should not exceed: 35 g/m2 for domestic furniture	GC-MS screening for VOC content	

METAL				
Restricted substance	CAS	Limit	Test method	Reporting limit
Metals, Total amount				

METAL				
Restricted substance	CAS	Limit	Test method	Reporting limit
Cadmium (Cd)	7440-43-9	40 mg/kg	Total metal content by microwave digestion with HNO ₃ /H ₂ O ₂ and ICP-MS analysis	1 mg/kg
Lead (Pb):	7439-92-1	300 mg/kg		
Mercury (Hg)	7439-97-6	0.5 mg/kg	Total metal content by microwave digestion with HNO ₃ /H ₂ O ₂ and ICP-MS analysis	0.1 mg/kg
Chromium VI	18540-29-9	Usage ban		
Nickel (Ni), Extractable amount	7440-02-0			
In metal products or part of products in direct and prolonged skin contact	-	Maximum release: 0.5 µg/cm ² /week	Nickel release by EN 1811 + A1 Abrasion of coated items by EN 12472	0.05 µg/cm ² /week

PAPER & CARDBOARD				
Restricted substance	CAS	Limit	Test Method	Reporting Limit
Bisphenols in thermal paper, e.g. Receipts				
Bisphenol A (BPA)	80-05-7	Usage ban	Organic solvent extraction (ACN) followed by LC/MS determination.	
Bisphenol S (BPS)	80-09-1			
Chlorophenols				
Pentachlorophenol (PCP) and its salts and esters	87-86-5	0.5 mg/kg	BVL B 82.02-08 (modified) Potassium Hydroxide extraction direct LC-MS analysis or derivatization followed by GC-MS analysis	0.05 mg/kg
Formaldehyde	50-00-0			
All products excluding carpets and mats	-	150 mg/kg	Paper: EN 645 and EN 1541	5 mg/kg

PAPER & CARDBOARD				
Restricted substance	CAS	Limit	Test Method	Reporting Limit
Metals, Total amount				
Cadmium (Cd)	7440-43-9	Sum ≤ 100 mg/kg	Total metal content by microwave digestion with HNO ₃ /H ₂ O ₂ and ICP-MS analysis	1 mg/kg
Lead (Pb)	7439-92-1			20 mg/kg
Mercury (Hg)	7439-97-6			0.1 mg/kg
Chromium VI (Cr ⁶⁺)	18540-29-9			1 mg/kg
Elemental chlorine bleach				
	-	Usage ban		

BAMBOO, WOOD, COMPOSITE WOOD ¹⁴ , CORK, RATTAN and STRAW				
Restricted substance	CAS no	Limit/Requirement	Test method	Reporting limit
Arsenic				
	7440-38-2	10 ppm	US EPA 3052	10 ppm
Creosote				
As wood preservative	-	Usage ban	Self-declaration	
Chromated copper arsenate				
As wood preservative		Usage ban	Self-declaration	
Formaldehyde				
In all wood based products	50-00-0	150 ppm	EN 717-3	20 ppm
		≤0.124 mg/m ³ air	EN 717-1 ¹⁵	0.03 mg/m ³

¹⁴ Includes furniture made from hardwood, plywood, particleboard, medium density fiberboard, thin medium density fiberboard (thickness ≤ 8mm)

¹⁵ The emissions of free formaldehyde from wood-based panels shall not exceed the E1 emissions limit as described in BS EN 13986

BAMBOO, WOOD, COMPOSITE WOOD¹⁴, CORK, RATTAN and STRAW				
Restricted substance	CAS no	Limit/Requirement	Test method	Reporting limit
In all composite wood products for North America		Composite wood products ¹⁶ should comply with TSCA Title IV		-
In all composite wood products for Japan		Composite wood products should comply with Building Standard Law (BSL) in Japan		-
Lindane	58-89-9	Not detected	U.S. EPA Method 8081a, 8151a, 8141a and 8270c or Analysis of organochloro pesticides by GC-MS or LC-MS	0.05 ppm
Pentachlorophenol and its salt and esters (PCP)	Various	0.5 ppm	DIN EN ISO 17070 (modified)	0.5 ppm

TERRACOTTA, ENAMEL, CEMENT, PLASTER, STONE, SOAPSTONE¹⁷, MARBLE¹⁷, CERAMIC, PORCELAIN, GLASS & CRYSTAL				
Restricted substance	CAS	Limit	Test method	Reporting limit
Arsenic (As)	7440-38-2	Usage ban	EN 16711-1, analysis by ICP-MS	
Cadmium (Cd)	7440-43-9	40 ppm	Total digestion and analyze with ICPAES/ICPMS. Using HF if silica based pigment is encountered.	1 ppm
Lead (Pb)				
In stains or pigment	7439-92-1	Maximum contamination level in stains or pigment is 600 ppm (calculated on the raw stain or pigment before it is mixed into glaze).	Total digestion, analysis with ICP-MS. Using HF if silica based pigment is encountered	1 ppm

¹⁶ Hardwood, plywood, particleboard, medium density fiberboard, thin medium density fiberboard (thickness ≤ 8mm), and furniture and other finished products made with composite wood products

¹⁷ It is important to ascertain the region of mining for soapstone as it can contain asbestos depending on where it originates from

Total amount, crystal glass excluded ¹⁸		90 ppm		
Chromium VI (Cr6+)	18540-29-9	2 ppm of the total dry weight of the cement. Limit applies to Cement and cement-containing mixtures when hydrated	DIN EN 196-10:2016-11 part 10	
Mercury (Hg)	7439-97-6	2.5 ppm	Total digestion, analysis with ICP-MS. Using HF if silica based pigment is encountered.	1 ppm

GENERAL REQUIREMENTS ALL ELECTRIC and ELECTRONIC EQUIPMENT

Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
EU Directive 2011/65/EU with its amendments – RoHS ¹⁹	-	All electrical and electronic equipment must comply with EU directive 2011/65/EU including its amendments. Valid test reports and certificates must be available.	IEC 62321-x	
China RoHS ²⁰	-	All electrical and electronic equipment destined for China must be tested and comply with China RoHS.	GB/T 26572	
Flame retardants				
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	1000 ppm	Methanol extraction and analysis by GC-MS and LC-MS	
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	13674-87-8	1000 ppm		
Hexabromocyclododecane	3194-55-6 25637-99-4, 134237-50-6, 134237-51-7, 134237-52-8	50 ppm	Methanol extraction and analysis by GC-MS and LC-MS	

¹⁸ The excluded crystal glass is category 1, 2, 3 and 4 in annex 1 of Council Directive 69/493/EEC

¹⁹ Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

²⁰ Administrative Measure on the Control of Pollution Caused by Electrical and Electronic Products.

GENERAL REQUIREMENTS ALL ELECTRIC and ELECTRONIC EQUIPMENT				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
Organotin Compounds				
Dibutyltin (DBT)	1002-53-5	1 ppm	ISO/TS 16179 (modified) Methanol/Ethanol extraction, derivatization and analysis by GC-MS	
Dioctyltin (DOT)	94410-05-6	1 ppm		
Tributyltin (TBT)	56573-85-4	Sum = Not detected		
Tricyclohexyltin (TCyHT)	6056-50-4			
Trioctyltin (TOT)	250252-89-2			
Triphenyltin (TPhT)	668-34-8			
Other not listed trisubstituted organotins	Various	Sum <1 ppm		
Bisphenol A in Polycarbonate (PC)				
	80-05-7	Extractable amount: 3 mg/kg	Extraction: artificial sweat solution ISO 105 E04. Analysis by LC-MS	
Polyvinylchloride (PVC) and similar chlorinated polymers, e.g. Polyvinylchloride and Polychloroprene (neoprene)				
Polyvinylchloride (PVC)	9002-86-2	Usage ban	Beilstein’s test and infrared spectroscopy (IR) with or without chemical separation	Qualitative
Polyvinylidenchloride	9002-85-1			
Polychloroprene	9010-98-4			
Phthalates				
Butyl benzyl phthalate (BBP)	85-68-7	500 ppm	Extraction with THF/CAN and analysis by HPLC-DAD-MS, confirmation test for DBP using GC-MS (reporting limit 50 ppm)	
Dibutyl phthalate (DBP)	84-74-2	500 ppm		
Diethyl phthalate (DEP)	84-66-2	500 ppm		
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	500 ppm		
Diisobutyl phthalate (DIBP)	84-69-5	500 ppm		
Diisodecyl phthalate (DIDP)	26761-40-0	500 ppm		
Diisononyl phthalate (DINP)	28553-12-0	500 ppm		
Di-n-hexyl phthalate (DnHP)	84-75-3	500 ppm		
Di-n-octyl phthalate (DnOP)	117-84-0	500 ppm		
All other phthalates (all other esters of o-phthalic acid)	Various	500 ppm		
Sum of phthalates		≤ 1000 ppm		

GENERAL REQUIREMENTS ALL ELECTRIC and ELECTRONIC EQUIPMENT				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
Odor				
	-	Grade 2 – not unpleasant		1. No odor 2. Slight odor, not unpleasant 3. Endurable odor, slightly unpleasant 4. Pestering odor, unpleasant 5. Insufferable odor, very unpleasant
Chloroparaffins				
Short chained chloroparaffins (SCCPs) C10-C13	85535-84-8	Not detected	N-hexane extraction, ultra sound 40°C, 30 min) and analysis by GC-MS using NCI (Negative Chemical Ionization) Draft EN ISO 18219:2012-12 (modified)	
Nickel (Ni), Extractable Amount In metal products or parts of products in direct and prolonged skin contact	7440-02-0	Maximum release: 0.5 µg/cm ² /week	EN 1811+A1	
Polyaromatic hydrocarbons (PAH)²¹				
Benzo[a]anthracene	56-55-3	<1 ppm	AfPS Extraction with toluene followed by GC-MS analysis (reporting limit 0.2 ppm)	
Benzo[a]pyrene	50-32-8			
Benzo[b]fluoranthene	205-99-2			
Benzo[e]pyrene	192-97-2			
Benzo[j]fluoranthene	205-82-3			
Benzo[k]fluoranthene	207-08-9			

²¹ Only for articles with direct as well as prolonged or short-term repetitive contact with the human skin, made of plastic or rubber.




GENERAL REQUIREMENTS ALL ELECTRIC and ELECTRONIC EQUIPMENT				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
Chrysene	218-01-9			
Dibenzo[a,h]anthracene	53-70-3			
REACH SVHC Check the ECHA website for the updated list ²²	-	1000 mg/kg in each homogeneous part of the product, except if lower limit applies as per other part of this document.		
Substances defined as hazardous due to intrinsic properties Criteria for hazardous as defined in REACH Article 57 ²³	-	1000 mg/kg in each homogeneous part of the product, except if lower limit applies as per other part of this document.		

GENERAL REQUIREMENTS BATTERIES				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
All Batteries must comply with EU Directive 2006/66/EU and 2013/56/EU including its amendments ²⁴				
Cadmium (Cd)	7440-43-9	20 ppm	Digestion with aqua regia and determination by ICP/MS	
Lead (Pb)	7439-92-1	40 ppm		
Mercury (Hg)	7439-97-6	5 ppm		

²² http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

²³ <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02006R1907-20150601&from=EN>

²⁴ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:329:0005:0009:EN:PDF>

GENERAL REQUIREMENTS CHEMICAL PRODUCTS	
Restricted classification	
All classifications that results in Pictogram GHS06 “Skull over crossed bones”	
All classifications that results in Pictogram GHS08 “Severe health hazard”	
All classifications that results in Pictogram GHS09 “Dead fish and tree”	

GENERAL REQUIREMENTS FOOD CONTACT PRODUCTS				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
Food Contact Products Framework Regulation	-	All Food Contact products must comply with EU Framework Regulation concerning Food Contact Products no 1935/2004 ²⁵ and all regulations, directives and amendments under this framework regulation ²⁶ .	-	-

²⁵ Regulation (EC) No 1935/2004 on materials and articles intended to come into contact with food

²⁶ http://ec.europa.eu/food/food/chemicalsafety/foodcontact/index_en.htm

GENERAL REQUIREMENTS FOOD CONTACT PRODUCTS				
Restricted substance/property	CAS	Limit/Requirement	Test method	Reporting limit
Good Manufacturing Practice (GMP)	-	All food contact products shall be produced according to GMP. The GMP for food contact products is defined in EU GMP Regulation 2023/2006 ²⁷ .	-	-

²⁷ Regulation (EC) No 2023/2006 on good manufacturing practice for materials and articles intended to come into contact with food

Appendix A: List of restricted agricultural pesticides

Restricted pesticides					
CAS No.	Pesticide Name	CAS No.	Pesticide Name	CAS No.	Pesticide Name
93-72-1	2-(2,4,5-trichlorophenoxy) propionic acid, its salts and compounds; 2,4,5-TP	333-41-5	Diazinone	118-74-1	Hexachlorobenzene
93-76-5	2,4,5-T	1085-98-9	Dichlofluanide	465-73-6	Isodrine
94-75-7	2,4-D	120-36-5	Dichloroprop	4234-79-1	Kelevane
309-00-2	Aldrine	115-32-2	Dicofol	143-50-0	Kepone
				7784-40-9	Lead hydrogen arsenate
86-50-0	Azinophosmethyl	141-66-2	Dicrotophos	58-89-9	Lindane
2642-71-9	Azinophosethyl	60-57-1	Dieldrin	121-75-5	Malathione
4824-78-6	Bromophos-ethyl	60-51-5	Dimethoate	94-74-6	MCPA
				94-81-5	MCPB
				93-65-2	Mecoprop
2425-06-1	Captafol	88-85-7	Dinoseb, its salts and acetate	10265-92-6	Metamidophos
63-25-2	Carbaryl	63405-99-2	DTTB (4, 6-Dichloro-7 (2,4,5-trichloro-phenoxy) -2-Trifluoro methyl benzimidazole)	72-43-5	Methoxychlor
				2385-85-5	Mirex
510-15-6	Chlorbenzilat	115-29-7	Endosulfan	6923-22-4 298-00-0	Monocrotophos Parathion-methyl
57-74-9	Chlordane	959-98-8	Endosulfan I (alpha)	1825-21-4	Pentachloroanisole
6164-98-3	Chlordimeform	33213-65-9	Endosulfan II (beta)	7786-34-7	Phosdrin/Mevinphos
470-90-6	Chlorfenvinphos	72-20-8	Endrine	13171-21-6	Phosphamidone
1897-45-6	Chlorthalonil	66230-04-4	Esfenvalerate	72-56-0	Perthane
56-72-4	Coumaphos	106-93-4	Ethylendibromid	31218-83-4	Propethamphos
68359-37-5	Cyfluthrin	56-38-2	Ethylparathione; Parathion	41198-08-7	Profenophos
91465-08-6	Cyhalothrin	51630-58-1	Fenvalerate	13593-03-8	Quinalphos
52315-07-8	Cypermethrin	Various	Halogenated naphthalenes, including polychlorinated naphthalenes (PCNs)	82-68-8	Quintozene

78-48-8	S,S,S-Tributyl phosphorotrithioate (Tribufos)	76-44-8	Heptachlor	8001-50-1	Strobane
52918-63-5	Deltamethrin	1024-57-3	Heptachloroepoxide	297-78-9	Telodrine
53-19-0 72-54-8	DDD	319-84-6	a-Hexachlorocyclohexane with and without Lindane	8001-35-2	Toxaphene
3424-82-6 72-55-9	DDE	319-85-7	b-Hexachlorocyclohexane with and without Lindane	731-27-1	Tolylfluanide
50-29-3 789-02-6	DDT	118-74-1	g-Hexachlorocyclohexane with and without Lindane	1582-09-8	Trifluraline

Appendix B List of restricted PFC/PFAS

Perfluorinated Compounds (PFC/PFAS)			
Substance	CAS	Substance	CAS
Perfluorobutane Sulfonate (PFBS)	29420-49-3	1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH)	678-39-7
Perfluorohexane Sulfonate (PFHxS)	3871-99-6	1H,1H,2H,2H-Perfluoro-1-dodecanol (10:2 FTOH)	865-86-1
Perfluoroheptane Sulfonate (PFHpS)	375-92-8	2-(N-methylperfluoro-FASE 1 octanesulfonamido)-ethanol (MeFOSE)	2448-09-7
Perfluorooctane Sulfonate (PFOS)	56773-42-3	2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol (EtFOSE)	1691-99-2
Perfluorodecane Sulfonate (PFDS)	126105-34-8	N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8
Perfluorooctane Sulfonamide (PFOSA) 1H,1H,2H,2H H4PFOS; 6:2	754-91-6	N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2
Perfluorobutane Acid (PFBA)	375-22-4	7H-dodecanefluoroheptane Acid (HPFHpA)	1546-95-8
Perfluoropentane Acid (PFPA)	2706-90-3	2H,2H-perfluorodecane Acid (H2PFDA)	-
Perfluorohexane Acid (PFHxA)	307-24-4	2H,2H,3H,3H-Perfluoroundecanoic Acid (H4PFUnA)	34598-33-9
Perfluoroheptane Acid (PFHpA)	375-85-9	1H,1H,2H,2H-Perfluorooctylacrylate (6:2 FTA)	17527-29-6
Perfluorooctanoic Acid (PFOA)	335-67-1	1H,1H,2H,2H-Perfluorodecylacrylate (8:2 FTA)	27905-45-9
Perfluorononane Acid (PFNA)	375-95-1	1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	17741-60-5
Perfluorodecane Acid (PFDA)	335-76-2	1H,1H,2H,2H-Perfluoro-1-hexanol (4:2 FTOH)	2043-47-2
Perfluoroundecanoic Acid (PFUnA)	4234-23-5	1H,1H,2H,2H-Perfluoro-1-oktanol (6:2 FTOH)	647-42-7
Perfluorododecanoic Acid (PFDoA)	307-55-1	Perfluorotetradecanoic Acid (PFTeA)	376-06-7

Perfluorotridecanoic Acid (PFTrA)	72629-94-8	Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)	172155-07-6
-----------------------------------	------------	---	-------------

Appendix C List of restricted amines

Azo Dyes & Pigments			
Substance	CAS	Substance	CAS
4-aminodiphenyl	92-67-1	p-Chloroaniline	106-47-8
Benzidine	92-87-5	p-Cresidine	120-71-8
4-Chloro-o-toluidine	95-69-2	4,4'-Methylene-bis-(2-chloroaniline)	101-14-4
2-Naphthylamine	91-59-8	4,4'-Oxydianiline	101-80-4
o-Aminoazotoluene	97-56-3	4,4'-Thiodianiline	139-65-1
2-Amino-4-nitrotoluene	99-55-8	2,4-Toluenediamine	95-80-7
2,4-Diaminoanisole	615-05-4	o-Toluidine	95-53-4
4,4'-Diaminodiphenylmethane	101-77-9	2,4,5-Trimethylaniline	137-17-7
3,3'-Dichlorobenzidine	91-94-1	o-Anisidine	90-04-0
3,3'-Dimethoxybenzidine (o-Dianisidine)	119-90-4	4-Aminoazobenzene	60-09-3
3,3'-Dimethylbenzidine (o-Tolidine)	119-93-7	2,4-Xylidine	95-68-1
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	2,6-Xylidine	87-62-7

Appendix D List of restricted disperse dyes

Disperse Dyes/CI no	CAS	Disperse Dyes/CI no	CAS
Disperse Blue 1 / 64 500	2475-45-8	Disperse Orange 1 /11 080	2581-69-3
Disperse Blue 3 / 61 505	2475-46-9	Disperse Orange 3 /11 005	730-40-5
Disperse Blue 7 /62 500	3179-90-6	Disperse Orange 11 /60 700	82-28-0
Disperse Blue 26 / 63 305	3860-63-7	Disperse Orange 37 /11 132	12223-33-5
Disperse Blue 35 / -	12222-75-2	Disperse Orange 76 (previously designated Orange 37) /	51811-42-8
Disperse Blue 102 / -	12222-97-8	Disperse Orange 149 /	85136-74-9
Disperse Blue 106 /-	12223-01-7	Disperse Yellow 1 / 10 345	119-15-3
Disperse Blue 124 /-	61951-51-7	Disperse Yellow 3 / 11855	2832-40-8
Disperse Brown 1 /-	23355-64-8	Disperse Yellow 9 /10 375	6373-73-5
Disperse Red 1 / 11 100	2872-52-8	Disperse Yellow 23 /26 070	6250-22-3
Disperse Red 11 / 62 015	2872-48-2	Disperse Yellow 39 /-	12236-29-2
Disperse Red 17 / 11 210	3179-89-3	Disperse Yellow 49 /-	54824-37-2