

4.2 – Product Specific Requirements (PSR) Chemicals

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4.2.1 Introduction and definitions

This chapter covers requirements for chemical substances of certain concern as they are hazardous and sometimes also regulated. These chemical substances are restricted in products and packaging as delivered to Kid/Hemtex.

Please also note Appendix 4.1 “PSR Quality” regarding restricted substances for food-safe products, EE products, and paper products.

Definitions

Requirements for substances are given in the form of tables as in the example shown below. Headings of columns are given also as below:

Chemical substance	CAS RN	Limit value (mg/kg)	Test method	Target material(s) / Use

Chemical substance

International recognized name of chemical substance or group of substances.

CAS RN, Chemical Abstract Services Registration Number

CAS RN are given for specifically defined chemical substances. Note that some requirements are given for a group or category of substances, where no single CAS RN may be given.

The CAS number included may be for the anhydrous form only, and therefore the CAS No shown does not always describe the entry accurately. See <http://echa.europa.eu/>

Limit value

A. Total content

Requirements for chemical substances are given as limit values, as measured and calculated in mg/kg from the weight of tested material or component, if not stated differently. Composite testing may be used only if approved by Kid/Hemtex, for complex articles where limit values and analytical method allow.

Limits may be relating to legal limits, or as agreed in business sector. Requirements are given with digits and/or less than digits also taking into account the possible unintended contamination of materials.

B. Migration limit/Extractable limit

For some requirements due to legal reasons, the limit value is given as maximum acceptable migration or extraction of a substance, as tested by the standard. This is the case for food contact materials and toys, but also for example, nickel in skin contact.

C. In case of conflict with eco label criteria:

If the Kid/Hemtex requirement is stricter, then the Kid/Hemtex requirement shall supersede the eco label criteria.

Test Method

Test method is given by one of the following:

- International ISO or CEN standardized test method if such exists. Note that the latest edition of every standard shall be used.
- Test equipment if no standardized test method exists.
- No information given, please check available test method with lab.

Target material(s) / Use

The target material(s) is defined as the type of material(s) where the chemical substance is most likely to be found. Note that this information is only given as guidance. The requirements are valid for all materials. When known, the most relevant use is given for information.

Test equipment abbreviations

GC= Gas chromatography: analyses of organic compounds

Detectors used together with GC:

MS: Mass selective detector: GC-MS

DAD: Diode array detector: GC-DAD

ECD: Electron capture detector: GC-ECD

LC= Liquid chromatography: analyses of organic compounds

HPLC= High Performance Liquid Chromatography.

Detectors used together with LC:

MS: Mass selective detector: LC-MS

DAD: Diode array detector: LC-DAD

ECD: Electron capture detector: LC-ECD

UV/VIS: Ultraviolet/visible spectrophotometric detector: LC-UV/VIS

ICP= Inductively Coupled Plasma Spectrometry: analyses of metals

Detectors together with ICP:

OES: Optical emission spectrometer: ICP-OES

MS: Mass selective detector: ICP-MS

Atomic absorption spectrophotometer: AAS

XR= X-ray fluorescence: screening analyses of elements

Guidance on relationship between units

1000	mg/kg	equals	1000	ppm	(parts per million)
			1 000 000	µg/kg	(microgram per kilogram)
			0.1	%	(by weight)
			x	µg/m ²	x depends on the thickness of the fabric (kg/m ²)
			x	µg/cm ² /week	x is a measure of the release of a substance from a surface, and is only partially dependent on the concentration of the substance

4.2.2 General chemical requirements

The supplier is responsible to produce and deliver products and packaging without using and/or having chemical substances that are restricted or prohibited as a result of national or international regulations, or of environmental and/or health concerns. Note that all amendments of all legislation shall be followed. It is the supplier's responsibility to keep updated with the latest legal requirements at all times. This list below is not exhaustive. **Note:** Kid/Hemtex requirements for substances listed in the REACH candidate list must be followed.

Legislation, Policy	Kid/Hemtex Requirements.
General Product Safety Regulation (GPSR) 2023/988 LOV-1976-06-11-79 Lov om kontroll med produkter og forbrukertjenester (produktkontrolloven) Note: Certain products in the sleep environment of children - shall fulfill and be tested to fulfill the req. in Decision 2010/376/EU	All products must comply with the EU Regulation 2023/988 and LOV-1976-06-11-79 concerning general product safety. Only safe products, i.e. that do not pose a threat to people's health, property or the environment, shall be supplied to the Kid/Hemtex. This assessment shall be based on a risk analysis.
Regulation 2025/40 Packaging and Packaging Waste (PPWR)	Full compliance with the Packaging and Packaging Waste Regulation (EU) 2025/40.
Batteries Directive 2006/66/EC as amended; and Regulation (EU) 2023/1542 on Batteries	Full compliance with Directive and new Regulation (EU) 2023/1542 on Batteries. See also the specific Kid/Hemtex requirements for primary batteries in Appendix 4.1, "PSR Quality" chapter 4.1.10 (Specific requirements for EE-products).
Regulation (EU) 528/2012 as amended Biocidal Products	Full compliance with regulation. Note transitional period for certain provisions. Kid/Hemtex does not accept any of its products having: <ul style="list-style-type: none"> - Antibacterial substances as additives if the active substances remain in the finished product as delivered. - Anti mould finishes Biocides used in production, storage, or transport shall meet requirements in Biocidal Products Regulation (EU) 528/2012 unless stated as limited in this PSR.
Regulation (EC) 1907/2006 (REACH) Candidate list <i>Substances of Very High Concern (SVHC)</i> http://www.echa.europa.eu/web/guest/candidate-list-table	The use in products and packaging of a substance taken into the candidate list shall be phased out within twelve (12) months from the date of publishing the substance in the candidate list. From January 2021, companies will also have to notify products containing SVHCs to ECHA's SCIP database on substances of concern in articles and products. The database aims to ensure transparent information on articles containing hazardous chemicals throughout their whole lifecycle. General limit if not stated differently in this PSR: $< 0,1\% \text{ w/w each substance}$ $*0,1\% = 1000 \text{ ppm} = 1000 \text{ mg/kg}$ <i>The following lists cover SVHC with known relevance to products and packaging supplied to Kid/Hemtex. However, the requirement covers the entire candidate list.</i>

Legislation, Policy	Kid/Hemtex Requirements.
Regulation (EC) 1907/2006 (REACH) Annex XIV <i>Authorisation substances</i> https://echa.europa.eu/authorisation-list	Products and packaging shall not contain authorisation substances according to Regulation (EC) 1907/2006 (REACH), Annex XIV. General limit if not stated differently in this PSR: < 0,1% w/w each substance
Regulation (EC) 1907/2006 (REACH) Annex XVII <i>Restricted substances</i> https://echa.europa.eu/substances-restricted-under-reach	Restricted substances according to Regulation (EC) 1907/2006 (REACH) may only be used in accordance with the provisions in Annex XVII to the regulation. Note: Stricter requirements for some substances exist under the PSR and must be followed.
Regulation (EC) 1907/2006 (REACH) Chemical substance	A supplier of products classified as chemical substances or preparations shall fulfil all obligations according to REACH Regulation 1907/2006/EC, either by itself or through a so called "Only Representative" within the EU. A copy of the contract with the "Only Representative" shall be provided to Kid/Hemtex. Candles are defined as a combination of an article and a chemical substance/mixture, the wick is the article and the wax is the substance / mixture.
Regulation EC 2019/1021 Regulation on Persistent Organic Pollutants (POPs)	Full compliance with POPs regulation.
Directive 2011/65/EU Restriction of Hazardous Substances in electrical and electronic equipment (EEE) (RoHS)	Full compliance with RoHS Directive. Note that RoHS applies for all parts of an EEE as defined by homogenous material. Kid/Hemtex does not accept RoHS exemptions. Any proposal to use an exemption under RoHS must be approved in advance and in writing by Kid/Hemtex. <i>See also Kid/Hemtex PSR Quality and specific requirements for EE-products.</i>
Regulation EU 2024/590 Substances that deplete the ozone layer	Full compliance with regulation.
Regulation 1272/2008/EC Classification, labelling and packaging (CLP)	Full compliance with CLP must be followed. This includes the amendments to CLP in Reg (EU) 2024/2865.
Directive 2009/48/EC Toy Safety Directive (TSD)	All toys must comply with the demands of EU Toy Safety Directive 2009/48/EC concerning safety-, chemical- and construction requirements of toys. This includes all chemical requirements listed in the EN 71-X standards series.
Regulation (EC) No 1223/2009 on Cosmetic Products	Full compliance with the Regulation on Cosmetic Products, including all annexes.
Regulation (EU) 2024/3190 on Ban of BPA and other bisphenols and bisphenol derivatives in FCM	Full compliance with Regulation 2024/3190 on the use of bisphenol A (BPA) and other bisphenols and bisphenol derivatives in FCM.
Regulation (EU) 2025/351 on Plastic FCMs	Full compliance with Regulation (EU) 2025/351 and its amended Regulations (EU) No 10/2011, (EU) 2022/1616 and (EC) No 2023/2006 concerning matters related to quality control and manufacturing of plastic materials and articles intended to come into contact with food.

4.2.3 Specific requirements

These lists below include all updates of the REACH candidate list until January 2025.

See section 4.2.2 for Kid/Hemtex requirements for phase out period related to Regulation (EC) 1907/2006 (REACH) Candidate List. Note that some chemicals are already restricted by Kid/Hemtex before inclusion in the REACH candidate list.

As a general approach, the substances in the REACH candidate list are included in the most relevant section of this PSR. SVHC containing toxic heavy metals are covered by other requirements in this chapter. Please note that several substances may have multiple uses. Other substances are not listed, but still the same requirements apply to all substances included in the REACH candidate list.

Requirements relating to chemistry but not to specific substances.

Feature	Kid/Hemtex Requirements	Target material(s) / Use
Bleaching	Kid/Hemtex recommends that bleaching of textiles is carried out without use of chlorine and that hydrogen peroxide is used instead.	Textile Paper
pH	Textile: Baby products (0-3 years)*: Between 4,0 and 7,5 All other products: Between 4,0 and 8,5 Leather: Between 3,5 and 6,0	Textile ISO 3071 Leather ISO 4045
Strong smell / odour	Kid/Hemtex do not accept any strong odour products. Note test instruction for VOC.	All
Certification	All children's products, textiles in contact with skin, and in the home shall be certified to OEKO-TEX® STANDARD 100® either product class I or class II as specified.	Textile
*“Items that might come into contact with children” are products, such as bed sheets, bed sets, pillowcases, towels, and similar products from Kid/Hemtex’s product assortment.		

Chemical requirements concerning EEE product.

EEE product shall **not** contain the substances in the **Declarable Substances List (DSL)** in the [International Electrotechnical Commission's database 'IEC 62474 - Material Declaration for Products of and for the Electrotechnical Industry'](#). Note that IEC 62474 consists of two parts: the main document part of the standard that describes the material declaration requirements (this may be purchased from IEC and resellers) and the free online database that specifies information that is regularly updated with legally restricted substances relevant for EEE products. The list is not exhaustive, and substances with legal requirements and/or Kid/Hemtex policy requirements still need to be acknowledged. Kid/Hemtex EEE product **must comply** with the limits in the RoHS Directive. **Kid/Hemtex does not accept the use of any RoHS Directive exemptions.** Any proposal to use an exemption under the RoHS Directive **must** be approved in advance and in writing by Kid/Hemtex.

Chemical requirements concerning synthetic polymer microparticles (microplastics).

Kid/Hemtex does not accept substances, mixtures, or articles that contain intentionally-added synthetic polymer microparticles as defined in entry 78 of Annex XVII to Regulation (EC) No. 1907/2006 (REACH). Note OEKO-TEX® STANDARD 100® restricts intentional use of synthetic polymer microparticles in all product classes. Any proposal to use an exemption under entry 78 must be approved in advance and in writing by Kid/Hemtex. Degradable polymers for purposes of entry 78 must meet the rules on proving degradability in Appendix 15 to Annex XVII of REACH. Soluble polymers for purposes of entry 78 must meet the rules on proving solubility in Appendix 16 to Annex XVII of REACH. The test report(s) evidencing degradability/solubility and the invoice(s) for the purchase of any degradable/soluble polymers shall be provided to Kid/Hemtex by all producers/factories that produce the products and shall clearly reflect that the polymer meets the relevant rules on degradability/solubility in Appendix 15 and 16, respectively.

4.2.4 Process Chemicals

Process chemicals are used in the manufacturing process but have no function in the finished product. Remains may however be found in the finished product and cause health and environmental problems.

4.2.4.1 Alkylphenol Ethoxylates and Alkylphenols

Requirements based on Water Framework Directive, REACH Annex XVII, Annex XIV and Candidate list.

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s) / Use
Alkylphenolethoxylates, APEO, such as: - Nonylphenol ethoxylates (NPEO) - Octylphenolethoxylates (OPEO) - Heptylphenol ethoxylates (HpPEO) - Hexylphenol ethoxylates (HxPEO) - Pentaphenol ethoxylates (PePEO)	Several	APEO shall not be used in processes. Verification by testing sum <100 mg/kg in product	Textile: ISO 18254-1, -2 (APEO) ISO 21084:2019 (AP) Leather: ISO 18218-1, ISO 18218-2	Textile PU Coatings Down/feather Leather Electric-equipment
Alkylphenols (AP), such as: - Nonylphenol, (NP) - Octylphenol (OP) - Heptylphenol (HpP) - Hexylphenol (HxP) - Pentaphenol (PeP) -4-tert-butylphenol -Tris(4-nonylphenyl, branched and linear) phosphite (TNPP)	Several	<10 mg/kg for sum		

4.2.4.2 Bisphenols

Requirements based on REACH annex XVII (entry 66 thermal paper) and Candidate list. Regulation (EU) 2024/3190 on the use of bisphenol A (BPA) and other bisphenols and bisphenol derivatives in FCM.

Chemical substance	CAS No	Limit value	Test method	Target material(s) / Use
Bisphenol-A; BPA (4,4'-isopropylidenediphenol)	80-05-7	0,04 mg/l from migration	EN71-10 and EN71-11	Toys in polycarbonate, Leather
		Not detected Note: EU ban on BPA in FCM	GC-MS LC-MS EN ISO 11936 (leather)	Plastic, paper, Leather Food contact materials Packaging
2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	10	GC-MS LC-MS EN ISO 11936 (leather)	Plastic, paper, polycarbonate, Leather

Chemical substance	CAS No	Limit value	Test method	Target material(s) / Use
Bisphenol B; BPB (4,4'-(1-ethylpropylidene)bisphenol)	77-40-7	10	GC-MS LC-MS EN ISO 11936 (leather)	Plastic, paper, polycarbonate, Leather
Bisphenol S; BPS (4,4'-sulphonyldiphenol)	80-09-1	10	GC-MS LC-MS EN ISO 11936 (leather)	Plastic, paper, polycarbonate, Leather
Bis(4-chlorophenyl) sulphone (BPCS)	80-07-9	10	GC-MS LC-MS EN ISO 11936 (leather)	Plastic, paper, Leather Mainly polycarbonate epoxy resins and thermal prints. Catalyst and antioxidant for processing PVC, also used in the production of flame retardants, and as intermediates in the manufacture of fungicides and dyes.

4.2.4.3 Chlorinated organic solvents and carriers

Requirements based on REACH annex XVII, Candidate list, EU regulation 2037/2000, IED 2010/75/EU and Substances that deplete the ozone layer

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s)
Chlorinated organic solvents (aliphatic):		Not detected	GC-MS GC-ECD No standardised test method available. Detection limit 0,1 mg/kg	Leather Paints, prints, stain removers, textile fibres washed, dyed and /or printed, PU, synthetic rubber.
Trichloromethane, (Chloroform)	167-66-3			
Trichloroethylene	79-01-6			
Tetrachloroethylene	127-18-4			
1,1-Dichloroethylene	75-35-4			
1,2-dichloroethane	107-06-2			
1,4-Dichlorobenzene	106-46-7			
1,1,1-Trichloroethane	71-55-6			
1,1,2-Trichloroethane	79-00-5			
1,2,3- Trichloropropane	96-18-4			
1,1,2,2,-Tetrachlorethane	79-34-5			
1,1,1,2-Tetrachloroethane	630-20-6			
Carbon tetrachloride	56-23-5			
Pentacholorethane	76-01-7			
Chlorinated Toluenes:		1	EN 17137	
α,α,α,4- tetrachlorotoluene: p-clorobenzotrichlorid	5216-25-1			
α,α,α- trichlorotoluene; benzotrichloride	98-07-7			
α-chlorotoluene: benzyl chloride	100-44-7			
Chlorinated organic carriers (aromatic):		1,0 for sum	DIN 54232 Extraction GC-MS	
Chlorinated benzenes	Several			
Chlorinated toluenes	Several			
Chlorinated naphthalenes	Several			
Chlorinated xylenes	Several			

4.2.4.4 Isocyanates

Requirements based on annex XVII (EC) No 1907/2006 (REACH)

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s)
2,2'-Methylenediphenyl diisocyanate (MDI)	2536-05-2	< 200	EN 13999-4:2007+A1:2009 (adhesives) EN ISO 10283:2007 (paints and varnishes) EN ISO 14896:2009 (Polyurethane materials)	Rigid foams, fibers, coatings such as paints and varnishes, and elastomers
2,4'-Methylenediphenyl diisocyanate (MDI)	5873-54-1			
4,4'-Methylenediphenyl diisocyanate (MDI)	101-68-8			
Methylenediphenyl diisocyanate (MDI)	26447-40-5			
2,4-Toluene diisocyanate (2,4 TDI)	584-84-9			
m-tolyldiene diisocyanate (TDI)	26471-62-5			
Hexane, 1,6-diisocyanato (HDI)	822-06-0			
Isophorone diisocyanate (IPDI)	4098-71-9			
Tetramethylxylene diisocyanate (TMXDI)	2778-42-9			
Benzene, 1,3-diisocyanato-2-methyl	91-08-7			

4.2.4.5 Pesticides used in the supply chain

Chemical substances listed in the Rotterdam Convention, annex III and recommended for listing in annex III, and chemical substances listed in annexes to the Stockholm Convention shall not be intentionally formed/used in agricultural or production processes or in products/packaging delivered to Kid/Hemtex.

Residues below Level of Quantification, (LOQ) based on Mass Spectroscopy analysis of products/packaging are regarded as unintentional formation/use.

For more information, please see the following URL: <http://www.pic.int/>

4.2.4.6 Polycyclic aromatic hydrocarbons, PAH

Requirement based on REACH Candidate list, annex XVII entry 50, amended by EU Regulation 1272/2013 (eight first substances in the table)

For products with direct, prolonged or multiple short, skin contact.

for products with direct, prolonged or multiple short, skin contact:					
Chemical substance	CAS RN	Limit value (mg/kg)		Test method	Target material(s)
Benzo(a)pyrene	50-32-8	0,2 Each PAH Toys and childcare articles; 0,2 each PAH		ISO 21461 (NMR) (rubber)	Rubber Leather Black plastic materials PU-elastane Neoprene
Benzo(e)pyrene	192-97-2				
Benzo(a)anthracene	56-55-3				
Benzo(a)phenanthrene (Chrysene)	218-01-9			EN 17132 (textile)	
Benzo(b)fluoranthene	205-99-2			Footwear: AfPS GS 2019-01 PAK ISO/TS 16190 Detection limit: 0.2 mg/kg	
Benzo(j)fluoranthene	205-82-3				
Benzo(k)fluoranthene	207-08-9				
Dibenzo(a,h)anthracene	53-70-3				
Benzo(ghi)perylene	191-24-2				
Fluoranthene	206-44-0				
Anthracene (Also biocid) (Also anthracene oil distillation fractions)	120-12-7				
Phenanthrene	85-01-8				
Acenaphthene	83-32-9	10 of sum of all 18 PAHs			
Acenaphthylene	208-96-8				
Fluorene	86-73-7				
Indeno(1,2,3-cd)pyrene	193-39-5				
Naphthalene	91-20-3				
Pyrene	129-00-0				

TESTING AND ASSESSMENT OF POLYCYCLIC AROMATIC HYDROCARBONS (PAHS) IN THE AWARD OF THE GS MARK – SPECIFICATION PURSUANT TO §21(1) NO. 3 OF THE PRODUCT SAFETY ACT (PRODSG) AFPS GS 2019:01 PAK, MAY 15, 2019					
	CATEGORY 1	CATEGORY 2		CATEGORY 3	
	Materials intended to be placed in the mouth or materials in toys (Directive 2009/48/EC) or articles for children up to 3 years of age with intended long-term skin contact (> 30 seconds) (mg/kg)	Materials that are not in Category 1, with intended or foreseeable long-term skin contact (> 30 seconds) or short-term repetitive contact with the skin		Materials not covered by Category 1 or 2, with intended or foreseeable short-term skin contact (≤ 30 seconds)	
		2a Use by children under 14 (mg/kg)	2b Other consumer products (mg/kg)	3a Use by children under 14 (mg/kg)	3b Other consumer products (mg/kg)
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-cd]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Anthracene, fluoranthene, phenanthrene, pyrene	< 1 (sum)	< 5 (sum)	< 10 (sum)	< 20 (sum)	< 50 (sum)
Naphthalene	< 1	< 2	< 2	< 10	< 10
Total 15 PAHs	< 1	< 5	< 10	< 20	< 50
Effective date = July 1, 2020 (for issuing GS-Mark)					

4.2.4.7 Quaternary ammonium compounds

Requirements based on PARCOM Recommendation 93/4 for complete phase-out

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s)
DSDMAC	107-64-2	Not detected	LC-MS Detection limit 10 mg/kg	Textile Leather Cosmetics
DTDMAC	68783-78-8			
DHTDMAC	61789-80-8			

4.2.4.8 Solvents

Kid/Hemtex does not accept any strong odour products. Assurance shall, if requested, be verified by the following general set up:

- A. Odour test:
 - a. result pass; no further test and product is accepted
 - b. inconclusive result. Continue with GC-MS Headspace according to table VOC, named substances
 - i. GC-MS test pass all limit values; no further test and product is accepted even if inconclusive result from odour test.
 - ii. GC-MS test do not pass all limit values; no further test and product is not accepted.
 - c. result fail; no further test and product is not accepted
- B. Kid/Hemtex may also request VOC to be tested according Tenax method; ISO 16000-6
- C. For specific products, as described in inquiry, tests for individual substances from lists VOC may be requested.

Parameter	Requirement	Test method
Odour test	<p>< 3; Pass</p> <p>3 - 3,5; Inconclusive; shall be followed by VOC test, Table VOC, GC-MS Headspace as below</p> <p>> 3,5; Fail</p> <p>Kid/Hemtex accept only panel tests for odour performed at labs in Hong Kong or Shanghai or European Locations.</p> <p>Accepted labs are ITS, SGS, UL or TUV Rheinland</p>	Panel test with reference to SNV 195651 / DIN 10955 Scale 1 to 5

Solvents requirements in this section are based on REACH Annex XVII and Candidate list, Product safety directive IED 2010/75/EU. Some of listed substances may also function as biocides.

Chemical substance	VOC	CAS No	Limit value (mg/kg)	Test method	Target material(s) / Use
Aromatic organic solvents					
Benzene	Yes	71-43-2	1	GC/MS VOC; Headspace	Paints, Lacquers, Textiles, Plastics, Adhesives
Ethylbenzene	Yes	100-41-4	20		
Styrene	Yes	100-42-5	10		
Toluene	Yes	108-88-3	5		
Total Xylenes	Yes	1330-20-7 Various	20		
Cyclohexane	Yes	108-94-1	100		
Acetophenone	Yes	98-86-2	Sum < 300		Polymer foam except PU
2 phenyl-2-propanol	Yes	617-94-7			EVA foam
Phenol		108-95-2	50	HPLC-DAD	Rubber, Polymeric material, Adhesives
Glycols					
2-ethoxietylacetate		111-15-9	100	GC/MS VOC; Headspace	Paints, Lacquers Textiles, Plastics Adhesives
2,2'dimethyldiether, DEGDME		111-96-6	100		
Other organic solvents					
DMFa, N,N-Dimethylformamide	Yes	68-12-2	500	EN 17131:2019 (textile)	PU, Acrylic, Paper
NMP N-methylpyrrolidone	Yes	872-50-4		GC/MS VOC; Headspace	PU, Styrene-butadiene, latex
DMAC N,N-dimethylacetamide,		127-19-5			PU, Acrylic, Polyamide
Formamide	Yes	75-12-7		prEN 17131-1 (textile) Detection limit 1 mg/kg	EVA foam, PU, paper
ADCA Azodicarbonamide	Yes	123-77-3	Not detected	GC-MS	Plastics, rubber, foaming agent in EVA, PE and PVC*
Hydrazine	Yes	302-01-2 7803-57-8	1000	UV-VIS Or GC-MS	Foaming agent in polymer foams, EVA
1,4 dioxane		123-91-1	< 10	-	Foaming agent, wetting agent in textiles

*See separate requirement for PVC in this chapter and in PAR 3.5.8

4.2.4.9 Tin organic compounds

Requirements based on REACH, Candidate list, Annex XVII; OEKO-TEX STANDARD 100.

Chemical substance	CAS RN	Limit value (mg/kg)	Test method	Target material(s)
Dibutyltin compounds DBT, DBTC and various DBTs	1002-53-5 683-18-1, 818-08-6 1067-33-0, 3349-36-8 15546-11-9, 4731-77-5 85702-74-5, 15546-16-4 2781-10-4, 77-58-7 13323-63-2, 5847-55-2 13323-62-1, 85391-79-3 95873-60-2	Not detected	GC-MS Detection limit: 0,2 mg/kg Possible reference to; EN ISO 22744-1 (textile) ISO/TS 16179 (footwear) DIN 38407 F13:2001 U ISO 17353 (Water and sediment)	PU Coatings PVC* Rubber TPR
Tributyltin compounds (TBT)	688-73-3, 56573-85-4			
Bis(Tributyltin)Oxide, TBTO (also biocid)	56-35-9			
Diocetyl tin compounds (DOT) (DOTE, MOTE)	870-08-6 15571-58-1 27107-89-7			
Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	-			
Dibutylbis(pentane-2,4-dionato-O,O') tin	22673-19-4			
Triphenyltin compounds (TPhT)	900-95-8, 379-52-2, 892-20-6, 76-87-9, 668-34-8, 639-58-7			
Trimethyltin (TMT)	1631-73-8			
Tricyclohexyltin (TCyHT)	6056-50-4			
Triocetyl tin (TOT)	250252-89-2			
Tripopyl tin (TPT)	-			

*See separate requirement for PVC in this chapter and in PAR 3.5.8.

4.2.4.10 Other process chemicals

Requirements based on REACH Candidate List and Kid/Hemtex policy.

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s) / Use
3-ethyl-2-methyl-2-(3-methylbutyl)-1, 3-oxazolidine	143860-04-2	1000	No specified	PU, Moisture scavenger
Triglycidyl isocyanurate, TGIC	2451-62-9	1000	LC-MS	Hardener, Coatings, Prints
β-Triglycidyl isocyanurate β-TGIC	59653-74-6	1000	LC-MS	Solder mask ink, Coatings on metal
Technical MDA	25214-70-4	1000	GC-MS	Hardener in hardware
Ethylenethiourea	96-45-7	1000	LC-MS	Accelerator in rubber
Ethylenediamine, EDA	107-15-3	Not detected	GC-MS	Textiles, PU, Epoxy resins (in glues, adhesives, paints)
N-nitrosamines	Several	0.5 mg/kg	GB/T 24153: determination using GC/MS with LC/MS/MS verification if positive. Alternatively, LC/MS/MS may be performed on its own.	Natural and synthetic rubber
Quinoline	91-22-5	50	GC-MS LC-MS prEN ISO 13144	Textiles
2-methoxyethyl acetate	110-49-6	100	GC-MS LC-MS	Solvent for celluloseacetate and textile printing, laquers
Bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	1000	-	Solvent/extractant agent. Can be used in inker prints.

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s) / Use
Bis(α,α -dimethylbenzyl) peroxide (also called Dicumyl peroxide)	80-43-3*	1000	GC-MS	Cross-linking agent for polymers, elastomers. Polymers cross-linked with organic peroxides produce hose, wires, tires, rubber seals, etc. Dicumyl peroxide is a flame-retardant synergist in expanded polystyrene (EPS).
tris(2-methoxyethoxy)vinylsilane	1067-53-4	1000		Polymers (Rubbers, plastics, sealants) Can be used in plating agent and surface treating agent.
Imidazoles: 1-vinylimidazole 2-methylimidazole	1072-63-5 693-98-1	< 200	No standardised test method available.	Adhesives, epoxy resins, textiles
Hydroxymethyl acrylamide	924-42-5	500	LC-MS, GC-MS	Textile, paper
Melamine	108-78-1	1000	LC-MS, GC-MS	Polymers, leather, textile finishes and coatings
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (TPO)	75980-60-8*	1000	GC-MS	A surfactant and photo-initiator used in printing inks and toners, UV coatings, other coating products, photo-chemicals, polymers, adhesives and sealants, and fillers, putties, plasters, modelling clay. Commonly in electronics, printed circuit board manufacturing.

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s) / Use
6-[(C10-C13)-alkyl-(branched, unsaturated)-2,5-dioxopyrrolidin-1-yl]hexanoic acid	2156592-54-8*	1000	LC-MS	Used in hydraulic oils, greases, and metalworking
Triphenylthiophosphate and tertiary butylated phenyl derivatives (reaction mass of)	192268-65-8*	1000	GC-MS	Used in various industrial applications, including as additives in lubricants and hydraulic fluids.
* SVHC substances ** CMR fast track substances				

4.2.5 Product Related (property lending) Chemicals

Product related substances that are used with intended function in the finished product.

4.2.5.1 Aromatic Amines from Azo Dyes

Requirements based on REACH annex XVII, entry 43 and entry 72, as well as the Candidate list.

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s)
Benzidine	92-87-5	Not detected	EN ISO 14362-1/ -3 for textiles Note: Part 1 analyses all regulated arylamines, except 4-Aminoazobenzene, CAS 60-09-3 that is analysed in part 3. EN ISO 17234-1, -2 for leather Note: Part 1 analyses all regulated arylamines, except 4-Aminoazobenzene, CAS 60-09-3 that is analysed in part 2. Detection limit 20 mg/kg (per each of the arylamine breakdown product)	Textile Leather Feathers Paper
Biphenyl-4-ylamine	92-67-1*			
4-Chloro-o-toluidine	95-69-2			
2-Naphthylamine	91-59-8			
o-Aminoazotoluene	97-56-3*			
5-Nitro-o-toluidine	99-55-8			
4-Chloroaniline	106-47-8			
4-methoxy-m-phenylenediamine	615-05-4			
4,4-Methylenedianiline	101-77-9			
3,3-Dichlorobenzidine	91-94-1			
o-Dianisidine	119-90-4			
4,4'-bi-o-toluidine	119-93-7			
4,4-Methylenedi-o-toluidine	838-88-0*			
p-Cresidine	120-71-8*			
4,4'-Methylene-Bis-(2-Chloroaniline)	101-14-4			
4,4'-Oxydianiline	101-80-4*			
4,4'-Thiodianiline	139-65-1			
o-Toluidine	95-53-4*			
2,4,5-Trimethylaniline	137-17-7			
4-methyl-m-phenylenediamine	95-80-7*			
o-Anisidine	90-04-0*			
2,4-xylidine	95-68-1			
2,6-xylidine	87-62-7			
4-Aminoazobenzene	60-09-3*			
4-chloro-o-toluidinium chloride	3165-93-3**			
2-Naphthylammoniumacetate	553-00-4**			
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7**			
2,4,5-trimethylaniline hydrochloride	21436-97-5**			
* SVHC substances ** CMR fast track substances				

4.2.5.2 Borate compounds

Requirements based on REACH Candidate list

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s)
Boric Acid	10043-35-3 11113-50-1	Not detected (LOQ: 25 mg/kg for individual compounds (10 mg/kg for total Boron content))	AAS Detection as 100 µg /kg as Boron ICP-MS and ICP-OES Detection limit as 1 µg/kg as Boron	Wood, Slime, Biocides, Glue, Detergents, Flame retardant, Paper, Rubber, Plastic, Ceramic
Tetraboron disodium heptaoxid, hydrate	12267-73-1			
Diboron trioxide	1303-86-2			
Disodium tetraborate anhydrous	1330-43-4, 12179-04-3 1303-96-4			
Sodium peroxometaborate	7632-04-4			
Sodium perborate; perboric acid, sodium salt	239-172-9, 234-390-0			
Disodium octaborate,	12008-41-2			
Orthoboric acid, sodium salt, e.g	13840-56-7			
Barium diboron tetraoxide	13701-59-2			

4.2.5.3 UV Stabilizers

Requirements based on REACH Candidate list and Persistent Organic Pollutants (POPs) Regulation under the UN Stockholm Convention.

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s) / Use
Benzotriazoles				
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	Not be present and not detected in products. 50 is the LOQ for benzotriazoles, UV-328 is a SVHC and a POP with limit value of 1 mg/kg	ISO 24040:2022	Plastics, PU, Rubber, Wood Coatings
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1			
2-(2H-benzotriazol-2-yl)-4,6-ditert-pentylphenol (UV-328)	25973-55-1			
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3			
Other UV Stabilizers				
3-benzylidene camphor (1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one) (3-BC)	15087-24-8	< 100 Not be present and not detected in products.	GC MS LC-MS GC-ECD	Cosmetics, polymeric materials
6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC)	119-47-1	100 mg/kg is LOQ for 3-BC and DBMC		Rubber, plastic, adhesives, inks,

4.2.5.4 Dyes pigments colorants

Requirements based on Commission Decision 2009/567/EC, EU flower, REACH Annex XVII, REACH Candidate list.

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s)		
CMR, Carcinogenic Mutagenic, Reproductive toxic Dyestuffs						
C.I. Disperse Orange 11	82-28-0	Not Detected	Extractable dyestuff EN ISO 16373	Textile Leather Feather, Paper inks, Packaging		
C.I. Basic Red 9	569-61-9**					
C.I Direct Red 28*	573-58-0*					
C.I. Disperse Violet 14	632-99-5					
C.I. Direct Black 38	1937-37-7*					
C.I. Disperse Blue 1*	2475-45-8**					
C.I. Direct Blue 6	2602-46-2					
C.I. Acid Red 26	3761-53-3					
C.I. Direct Brown 95	16071-86-6					
C.I. Disperse Orange 149	85136-74-9					
Michlers base*	101-61-1*					
Michlers ketone	90-94-8					
C.I. Solvent Blue 4*	6786-83-0*					
C.I. Basic Blue 26*	2580-56-5*, **					
C.I. Basic Violet 3*	548-62-9*					
4,4'-bis(dimethylamino)-4''-(methylamino)triethylalcohol*	561-41-1*					
C.I. Disperse Yellow 3	2832-40-8					
* SVHC substances **CMR fast track						
Allergenic Dyestuffs:						
C.I. Disperse Blue 1*	2475-45-8	Not Detected	DIN 54231 Method to be followed strictly including methanol extraction	Textile Leather Feather		
C.I. Disperse Blue 3	2475-46-9					
C.I. Disperse Blue 7	3179-90-6					
C.I. Disperse Blue 26	3860-63-7 100357-99-1 13324-23-7					
C.I. Disperse Blue 35	12222-75-2					
C.I. Disperse Blue 102	12222-97-8					
C.I. Disperse Blue 106	12223-01-7 68516-81-4					
C.I. Disperse Blue 124	61951-51-7					
C.I. Disperse Brown 1	23355-64-8					
C.I. Disperse Orange 1	2581-69-3					
C.I. Disperse Orange 3	730-40-5					
C.I. Disperse Orange 37	12223-33-5					
C.I. Disperse Orange 59**	13301-61-6					
C.I. Disperse Orange 76**	51811-42-8					
C.I. Disperse Red 1	2872-52-8					
C.I. Disperse Red 11	2872-48-2					
C.I. Disperse Red 17	3179-89-3					
C.I. Disperse Yellow 1	119-15-3					
C.I. Disperse Yellow 3	2832-40-8					
C.I. Disperse Yellow 9	6373-73-5					
C.I. Disperse Yellow 23	6250-23-3					
C.I. Disperse Yellow 39	12236-29-2					
C.I. Disperse Yellow 49	54824-37-2					
Navy Blue	405-665-4 118685-33-9					
* Both allergenic and carcinogenic; ** Equivalent to C.I. Disperse Orange 37						

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s)
Pigment salts				
All lead and chromate pigment salts		See section toxic heavy metals	1. XRF 2. AAS 3. ICP-MS ICP-OES	Enamel coated metal Colored plastic Colored rubber Plastisol Prints Ceramics
Cobalt(II)sulphate	10124-43-3	1000		

4.2.5.5 Electrolyte

Requirements based on REACH Candidate list and REACH authorization list (Annex XIV)

Chemical substance	CAS No	Limit value	Target material(s)
1,3-propanesultone	1120-71-4	1000 mg/kg	Electrolyte in Li ion batteries
1,2-bis(methoxy) ethane (TEGDME)	112-49-2		
1,2-dimethoxyethane (EGDME)	110-71-4		
Bis(2-(2-methoxyethoxy)ethyl)ether (tetraglyme/TEGDME)	143-24-8	Not detected	May be found in printing inks
Bis(2-methoxyethyl) ether (diglyme/DEGDME)	111-96-6		

4.2.5.6 Flame retardants, FR

Requirements based on REACH, Water Framework Directive, and POPs Regulation

Some substances listed under flame retardants may also have other use in processes or products.

See also chapter Boron compounds

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s)
Antimony based FR				
Antimony(III) Oxide	1309-64-4	10 Polyester: 200	XRF screening GC MS ICP-OES	Plastics Textile Gypsum
Brominated, Chlorinated FR				
Tetrabromodiphenyl ether, TetraBDE	5436-43-1	Not detected	EN ISO 17881-1 (textiles).	Plastics Textile Foam Coatings, Electronics
Polybrominated Biphenyls (Mix) PBB	59536-65-1 Various		EN16377 for PBB (plastics)	
Pentabromodiphenyl ether, PBDE	32534-81-9 60348-60-9			
Hexabromobiphenyl	36355-01-8			
Hexabromodiphenyl ether, HexaBDE	68631-49-2 207122-15-4			
Heptabromodiphenyl ether, HeptaBDE	207122-16-5 446255-22-7			
Octabromodiphenyl ether, OctaBDE	32536-52-0			
Decabromobiphenyl ether, DecaBDE	1163-19-5			
Tetrabromobisphenol A TBBPA	79-94-7			
Hexabromocyclododecane HBCDD	25637-99-4 3194-55-6 134237-50-6 134237-51-7 134237-52-8			
			XRF Screening* GC-MS, LC-MS For LC-MS recommended detection limit 1 mg/kg	

Chemical substance	CAS No	Limit value (mg/kg)	Test method	Target material(s)
Dechlorane Plus™	13560-89-9; 135821-74-8; 135821-03-3	Not detected		Plasticizer, Adhesives & sealants
1,1'-[ethane-1,2-diylbisoxo]bis[2,4,6-tribromobenzene] (BTBPE)	37853-59-1			
Bis(2-ethylhexyl) tetrabromophthalate (TBPH)	26040-51-7 (several)	100		
Chlorinated Paraffins				
Short chained chlorinated paraffin, SCCP (C10-C13),	85535-84-8	100	EN ISO 22818 (textile)	Rubber Leather Paints PU PVC**
Medium-chain chloroparaffins, MCCP (C14-C17)	85535-85-9	1000	ISO 18219 (leather)	
Long-chain chloroparaffins, LCCP (C18-)	85535-86-0	1000	Plastic	
Phosphate and phosphonium based FR				
Tri-O-Cresylphosphate (TOCP)	78-30-8	10	For non-textile materials: XRF Screening*, GC-MS LC-MS Detection limit for LC-MS 1 mg/kg For textiles: EN ISO 17881-2	Plastics Textile Rubber Foam
Tris(2-Chloroethyl) Phosphate (TCEP)	115-96-8	Not detected		
Phosphonium Tetrakis (Hydroxymethyl)-Chloride	124-64-1	10		
Tris(2,3-Dibromopropyl) Phosphate (TBPP)	126-72-7	10		
Tris(1-Aziridiny)-Phosphine Oxide (TEPA)	545-55-1	10		
Dimethyl Methylphosphonate (DMMP)	756-79-6	10		
Tricresyl Phosphate (TCP)	1330-78-5	10		
2-Propanol, 1-Chloro-, Phosphate (3:1) (TCPP)	13674-84-5	5		
Tris(1,3-Dichloro-2-Propyl) Phosphate (TDCPP)	13674-87-8	5		
Phosphoric Acid, Methylphenyl	26444-49-5	10		
Phosphoric Acid, (1,1-Dimethylethyl) Phenyl Diphenylester	56803-37-3	10		
Triphenyl phosphate	115-86-6	10		
Trixylyl phosphate	25155-23-1	10		
Isopropylated phenyl phosphate (3:1)	68937-41-7			
O,O,O-triphenyl phosphorothioate (TPPT)	597-82-0			

*Requirement XRF screening test: substances that contain bromine, chlorine, heavy metals may be screened with XRF for a first indication of presence of elements in the sample. For quantitative determination of listed substances GC-MS or LC- MS may be requested.

*See separate requirement for PVC in this chapter and in PAR 3.5.8.

4.2.5.7 Formaldehyde

Requirement based on REACH, Annex XVII, entries 28-30, 72, 77, and other legal requirements.

Note: additional legal requirements apply to toys, cosmetics, chemicals, food contact materials, electricals, PPE, and other product categories, see section 4.2.2 regarding General Chemical Requirements.

Chemical substance	CAS No	Limit value	Test method	Target material(s) / Use
Formaldehyde 50-00-0		16 mg/kg	ISO 14184-1	Textiles in direct contact with skin Textiles for children <36 months*
		75 mg/kg	ISO 14184-1	Other textiles
			ISO 17226-2; and ISO 17226-1; confirmation method in case of interferences Note requirements for sampling in standard**	Leather
		0,062 mg/m ³	EN 717-1 EN ISO 12460-1 EN ISO 12460-3	Furniture and wood-based articles***
		0,080 mg/m ³	EN 717-1 EN 12460-1 EN 16516	Articles other than furniture and wood-based articles***
		<3,5 mg/m ² xh		Adhesives

* “Items that might come into contact with children” are products such as bed sheets, bed sets, pillowcases, towels, and similar products from Kid/Hemtex’s assortment.

**Due to its volatility, formaldehyde is “contagious”. For example, if an article containing formaldehyde is placed on top of an article without formaldehyde, the latter article will be contaminated (“infected”). Therefore, samples for testing must be packed in air dense plastic bags of polyethylene (PE) or polypropylene (PP) to prevent sample contamination.

*** See [ECHA Guidelines for the measurement of formaldehyde releases from articles and formaldehyde concentrations in the interior of vehicles](#) dated April 2025.

4.2.5.8 Heavy metals and their compounds in textile and leather

Requirements based on General Product Safety Regulation (EU) 2023/988.

Note that several salts related with these requirements are included in the REACH candidate list.

Chemical substance	CAS No	Limit value (mg/kg)		Test method
		adults	children <36 months*	
Antimony, Sb	7440-36-0	30	30	Extraction in accordance with ISO 105 E04, 40°C 1 h and analysis AAS, or ICP-MS, ICP-OES (For children up to 36 months: saliva solution. For other products: sweat solution) EN 16711-1 (total content in textiles). EN 16711-2 (extractable content in textile) Leather; EN ISO 17072-1 (extractable) ISO 17072-2 (total content)
Arsenic, As, and arsenic compounds:	7440-38-2	1,0	0,2	
Diarsenic Pentoxide	1303-28-2			
Diarsenic Trioxide	1327-53-3			
Triethyl arsenate	15606-95-8			
Arsenic acid	7778-39-4			
Calcium arsenate	7778-44-1			
Cadmium, Cd and cadmium compounds	7440-43-9 1306-19-0 1306-23-6 10108-64-2 7790-79-6 10124-36-4 31119-53-6 10325-94-7 513-78-0 21041-95-2	0,1	0,1	
Cobalt, Co	7440-48-4	4,0	1,0	
Copper, Cu	7440-50-8	50	25	
Lead, Pb and lead salts (see appendix Lead compounds)	7439-92-1	1,0	0,2	
Mercury, Hg, and mercury compounds:	7439-97-6	0,02	0,02	For leather: EN ISO 17075-1, (Colorimetric method), EN ISO 17075 -2 (Chromatographic method) Detection limit: 3 mg/kg. ISO 19071 (in chromium tanning agents) EN ISO 10195 (pre-aged leather) For textiles. UV-VIS Spectrometer, ICP-MS Detection limit: 0.5 mg/kg
Phenylmercury neodecanoat	26545-49-3			
Phenylmercury octanoate	13864-38-5			
Phenylmercury 2-ethylhexanoate	13302-00-6			
Phenylmercury propionate	103-27-5			
Phenylmercury acetate	62-38-4			
Nickel, Ni	4770-02-0	4,0	1,0	
Chromium, Cr		0,5	0,5	
Hexavalent Chrome, Cr +6 (see appendix Chromium compounds)	18540-29-9	Not detected	Not detected	

* "Items that might come into contact with children" are products such as bed sheet, bed set, pillow cases, towels and similar products from Kid/Hemtex's assortment.

Substances that contain bromine, chlorine, heavy metals may be screened with XRF for a first indication of presence in the sample. Stated test methods should be used for quantitative determination where applicable.

Appendix Chromium compounds

See requirements for Chromium in list Toxic Heavy metals.

Requirements based on Candidate list of Substances of Very High Concern, SVHC, Regulation (EC) No 1907/2006 (REACH) and Annex XIV

Chemical substance	CAS No
Ammonium dichromate	7789-09-05
Potassium chromate	7789-00-6
Potassium dichromate	7778-50-9
Sodium chromate	7775-11-3
Sodium dichromate dehydrate	7789-12-0, 10588-01-9
Strontium chromate	7789-06-2
Chromium trioxide	133-82-0
Chromic acid	7738-94-5
Dichromic acid	13530-68-2
Lead chromate	7758-97-6
Lead sulfochromate	1344-37-2
Lead chromate molybdate sulphate	12656-85-8
Dichromium tris(chromate)	24613-89-6
Potassium hydroxyoctaoxidizincatedichromate	11103-86-9
Pentazinc chromate octahydroxide	49663-84-5

Appendix Lead compounds

See requirements for Lead in list Toxic Heavy metals. Requirements based on Candidate list of Substances of Very High Concern, SVHC, Regulation (EC) No 1907/2006 (REACH)

Chemical substance	CAS No
Lead chromate	7758-97-6
Lead sulfochromate	1344-37-2
Lead chromate molybdate sulphate	12656-85-8
Lead(II)picrate	6477-64-1
Lead styphnate	15245-44-0
Lead diazide	13424-46-9
Lead hydrogen arsenate	7784-40-9
Lead monoxide (Lead oxide)	1317-36-8
Orange lead (Lead tetroxide)	1314-41-6
Lead bis(tetrafluoroborate)	13814-96-5
Trilead bis(carbonate)dihydroxide	1319-46-6
Lead titanium trioxide	12060-00-3
Lead titanium zirconium oxide	12626-81-2
Lead(II)bis(methanesulfonate)	17570-76-2
Silicic acid, lead salt	11120-22-2
Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), leaddoped	68784-75-8
Acetic acid, lead salt, basic	51404-69-4
Lead oxide sulfate	12036-76-9
[Phthalato(2-)]dioxotrilead	69011-06-9
Dioxobis(stearato)trilead	12578-12-0
Fatty acids, C16-18, lead salts	91031-62-8
Lead cyanamidate	20837-86-9
Lead dinitrate	10099-74-8
Pentalead tetraoxide sulphate	12065-90-6
Pyrochlore, antimony lead yellow	8012-00-8
Sulfurous acid, lead salt, dibasic	62229-08-7
Tetraethyllead	78-00-2
Tetralead trioxide sulphate	12202-17-4
Trilead dioxide phosphonate	12141-20-7
Lead di(acetate)	301-04-2

4.2.5.9 Heavy metals in hardware (non-textile and non-leather products)

Requirements based on **REACH**. Several substances of relevance in the Candidate list.

Chemical substance	CAS No	Limit value (mg/kg) Total content	Test method	Target material(s)
Arsenic, As and arsenic compounds: Diarsenic Pentoxide Diarsenic Trioxide Triethyl arsenate Arsenic acid Calcium arsenate	7440-38-2 1303-28-2 1327-53-3 15606-95-8 7778-39-4 7778-44-1	25 Wood: not detected	Microwave assisted acidic digestion, determination with ICP/MS, AAS or ICP-OES	Metal, Plastic, Glass, Wood
Cadmium, Cd and cadmium compounds	7440-43-9 1306-19-0 1306-23-6 10108-64-2 7790-79-6 10124-36-4 31119-53-6 10325-94-7 513-78-0 21041-95-2	75 in plastic material or paint. Not detected in brazing fillers or in jewellery.		Plastic Metal
Lead, Pb and lead salts (see appendix Lead compounds)	7439-92-1 Various	90		Metal, Plastic, Glass, Ceramics
Mercury, Hg, and mercury compounds: Phenylmercury neodecanoat Phenylmercury octanoate Phenylmercury 2-ethylhexanoate Phenylmercury propionate Phenylmercury acetate	7439-97-6 26545-49-3 13864-38-5 13302-00-6 103-27-5 62-38-4	0,5		Gypsum, Metal, Plastic
Nickel, Ni In metal with intended prolonged** skin contact. >10 min on three or more occasions or, >30 min on one or more occasions within two weeks	7440-02-0	0.5 µg per cm ² and week for products intended to come into direct and prolonged contact with the skin.	Screening test with dimethyl glyoxime and ammonium hydroxide, if positive: Part with coating or plating: EN 12472:2020 (simulation of accelerated wear and corrosion) and EN 1811:2023 (migration test of coated or non-coated items) Part without coating or plating: EN 1811:2023	Metal, Plastic, Metal-coatings

Chemical substance	CAS No	Limit value (mg/kg) Total content	Test method	Target material(s)
Hexavalent Chrome, Cr +6 (see appendix Chromium compounds)	18540-29-9 Various	3*, Cr VI substances shall not be used	Alkaline digestion and colorimetric analysis Possible reference to IEC 62321	Plastic Wood Metal Cement

Articles may be screened with XRF for a first indication of presence of heavy metals in the sample. Stated test methods should be used for quantitative determination where applicable.

*Limit for unintentional occurrence. Compliance may be shown by total chrome content.

**See definition of prolonged skin contact in the case of Nickel restriction;

http://echa.europa.eu/documents/10162/13641/nickel_restriction_prolonged_contact_skin_en.pdf

4.2.5.10 Heavy metals in packaging

Requirement based on **Regulation (EU) 2025/40 on Packaging and Packaging Waste (PPWR)**.

Wood preservatives regulated in Annex XVII. Note also requirements for PVC, DMFu, and other biocides.

Chemical substance	CAS No	Limit value (mg/kg) Total content	Test method	Target material(s)
Cadmium, Cd and cadmium compounds	7440-43-9, 1306-19-0, 1306-23-6, 10108-64-2, 7790-79-6, 10124-36-4, 31119-53-6 10325-94-7 513-78-0 21041-95-2	Sum < 100	CEN/CR 13695-1:2000	Packaging
Hexavalent Chrome, Cr +6 (see appendix Chromium compounds)	18540-29-9, Various		CEN/TR 13695-2:2004	
Lead, Pb and lead salts (see appendix Lead compounds)	7439-92-1, Various			
Mercury, Hg, and mercury compounds:	7439-97-6			
Phenylmercury neodecanoat	26545-49-3			
Phenylmercury octanoate	13864-38-5			
Phenylmercury 2-ethylhexanoate	13302-00-6			
Phenylmercury propionate	103-27-5			
Phenylmercury acetate	62-38-4			

Substances that contain heavy metals may be screened with XRF for a first indication of presence in the sample. Stated test methods should be used for quantitative determination where applicable.

4.2.5.11 Heavy metals in EE products, except batteries

Requirements based on **RoHS Directive**.EEE product shall **not** contain the substances in the **Declarable Substances List (DSL)** in the [International Electrotechnical Commission's database 'IEC 62474 - Material Declaration for Products of and for the Electrotechnical Industry'](#). See section 4.2.3. Kid/Hemtex EEE product **must comply** with the limits in the RoHS Directive.

Kid/Hemtex does not accept the use of any RoHS Directive exemptions. Any proposal to use an exemption under the RoHS Directive **must** be approved in advance and in writing by Kid/Hemtex.

Still, if levels from exceptions exceed 1000 mg/kg, then the supplier must inform Kid/Hemtex. The supplier shall in that case also provide SCIP-registration number to Kid/Hemtex for the item containing SVHC above 0,1%.

If there is a conflict between a specific requirement in other parts of this PSR and a requirement or provision in RoHS, then the requirement in the RoHS directive shall apply.

Note the requirements for PVC in section 4.2.5.16.

Note also requirements for flame retardants, and other restricted chemical substances.

Chemical substance	CAS No	Limit value (mg/kg)	Test methods
Cadmium, Cd and cadmium salts	7440-43-9, 1306-19-0, 1306-23-6, 10108-64-2, 7790-79-6, 10124-36-4, 31119-53-6	100	<p>The harmonized standard EN 50581 shall be followed for showing full compliance with directive. XRF, screening* Note also the EN 62321 series for showing compliance.</p> <p>Valid for all homogenous materials in EE products.</p> <p>Note that articles shall not be placed on the market, if the concentration of lead is equal to or greater than 0,1 % by weight of the PVC material. Note also the requirements related to PVC in section 4.2.5.16.</p>
Hexavalent Chrome, Cr +6	18540-29-9	1000	
Lead, Pb	7439-92-1	1000	
Mercury, Hg	7439-97-6	1000	

*Materials may be screened with XRF for an indication of presence of heavy metals.

4.2.5.12 Heavy metals in batteries

Requirements based on Regulation (EU) 2023/1542 on Batteries and EU Ecolabel. Note also substances of relevance included in the Candidate list. For example 1,2-dimethoxyethane.

Chemical substance	CAS No	Limit value w/w% (x ppm)	Limit value Mid/ high prize product, ppm (Nordic Ecolabel)	Test methods
Mercury, Hg	7439-97-6	0,0005w/w% (5 ppm)	< 0,1 ppm	Battery Industry Standard Analytical Method. For the determination of Mercury, Cadmium and Lead in Alkaline Manganese Cells Using AAS, ICP-AES and Cold Vapour, European Portable Battery association (EPBA), Battery Association of Japan (BAJ), National Electrical Manufacturers Association (NEMA; USA) April 1998 Comparable test method can be approved if it, by an independent party, has been valued and estimated as equal to the recommended methods.
Cadmium, Cd	7440-43-9	0,002w/w % (20 ppm)	< 1,0 ppm	
Lead, Pb	7439-92-1	0,004w/w % (40 ppm)	< 10 ppm	

4.2.5.13 Nickel in metals with intended contact with skin

Requirement based on REACH, Annex XVII, entry 27.

Chemical substance	CAS No	Limit value µg/cm² and week	Test method
Nickel, Ni, in metal with intended prolonged* skin contact. <i>>10 min on three or more occasions or, >30 min on one or more occasions within two weeks</i>	7440-02-0	0,5 Note result interpretation in standard.	Screening test with dimethyl glyoxime and ammonium hydroxide, if positive: Part with coating or plating: EN 12472:2005 +A1:2009 and EN 1811:2023
For metal accessories pierced from the skin, such as the pin at an earring	7440-02-0	0,2 Note result interpretation in standard.	Part without coating or plating: EN 1811:2023

*See definition of prolonged skin contact in the case of Nickel restriction;

http://echa.europa.eu/documents/10162/13641/nickel_restriction_prolonged_contact_skin_en.pdf

4.2.5.14 PFAS, Per and polyfluorinated alkyl substances*

Requirement based on REACH Candidate list, REACH Annex XVII, Stockholm Convention on Persistent Organic Pollutants (POPs), and Kid/Hemtex policy.

Chemical substance	Acronym	CAS Number	Test method	Target material
PFSA related substances			Not detected in product or packaging. 1. Start with non-targeted analysis: EN 14582:2016 and/or EN 17813:2023, (Total fluorine) analysis. 2. Follow with targeted analyses for specific PFAS substances regardless of the obtained total fluorine test result. Targeted analyses:	Textile, Coatings and impregnations, Paints <i>Note requirements in Appendix 4.1 "PSR Quality" regarding Food contact products</i> Note: PFHxA including its related substances are REACH restricted in entry 79.
Perfluorooctane sulfonate	PFOS	1763-23-1		
Perfluorooctanesulfonamide	PFOSA	754-91-6		
N-Methyl-Perfluorooctanesulfonamide	N-Me-FOSA	31506-32-8		
N-Ethyl-Perfluorooctanesulfonamide	N-Et_FOSA	4151-50-2		
N-Methyl-Perfluorooctanesulfonamidoethanol	N-Me-FOSE	24448-09-7		
N-Ethyl-Perfluorooctanesulfonamidoethanol	N-Et-FOSE	1691-99-2		
Perfluorohexane sulfonate and its related substances	PFHxS	355-46-4		
Perfluorobutane sulfonic acid and its salts	PFBS	various		
Perfluamine	PFA	338-83-0	EN 17681-1:2025 (textile) EN ISO 23702-1:2023 (leather)	
PFCA related substances				
Perfluorooctane acid	PFOA	335-67-1		
Perfluorononanoic acid	PFNA	375-95-1		
Perfluorodecanoic acid	PFDA	335-76-2		
Perfluoroundecanoic acid	PFUnA	2058-94-8		
Heptacosafuorotetradecanoic acid	PFTA	376-06-7		
Tricosafuorododecanoic acid	PFDoA	307-55-1		
Pentacosafuorotridecanoic acid	PFTTrDA	72629-94-8		
Ammonium pentadecafluorooctanoate	APFO	3825-26-1		
Sodium perfluorooctanoate	Na-PFO	335- 95-5		
Potassium perfluorooctanoate	Ca-PFO	2395-00-8		
Silver perfluorooctanoate	Ag-PFO	335-93-3		
Perfluorooctanoyl fluoride	F-PFO	335-66-0		
Methyl pentadecafluorooctanoate	Me-PFO	376-27-2		
Ethyl perfluorooctanonate	Et-PFO	3108-24-5		
Perfluorobutanoic acid	PFBA	375-22-4		
Perfluoropentanoic acid	PFPeA	2706-90-3		
Perfluorohexanoic acid and its related substances	PFHxA	307-24-4		
Perfluoroheptanoic acid	PFHpA	375-85-9		
2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid	HFPO-DA	13252-13-6		
2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionyl fluoride		2062-98-8		
Ammonium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate		62037-80-3		
Potassium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionate		67118-55-2		
reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine		Several		

Chemical substance	Acronym	CAS Number	Test method	Target material
and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine				
Flourtelomers (precursors)				
4:2 fluorotelomer sulfonate	4:2 FTS	757124-72-4		
6:2 fluorotelomer sulfonate	6:2 FTS	27619-97-2		
8:2 fluorotelomer sulfonate	8:2 FTS	39108-34-4		
1H,1H,2H,2H-Perfluorooctylacrylat	6:2 FTA	17527-29-6		
1H,1H,2H,2H-Perfluorodecylacrylat	8:2 FTA	27905-45-9		
1H,1H,2H,2H-Perfluorohexanol	4:2 FTOH	2043-47-2		
1H,1H,2H,2H-Perfluoro-1-octanol	6:2 FTOH	647-42-7		
1H,1H,2H,2H-Perfluoro-1-decanol	8:2 FTOH	678-39-7		
1H,1H,2H,2H-Perfluorododecane-1-ol	10:2 FTOH	865-86-1		

***Note the general ban of PFAS** in Kid/Hemtex assortment and in packaging, given in section 3.5.8 of the PAR. Kid/Hemtex approves Bionic Finish Eco from Rudolf Group, OrganoTex from OrganoClick, Arkophob by Acroma, and Phobotex PFC-free products from Huntsman as alternatives for water repellent treatments.

4.2.5.15 Phthalates

Requirements based on REACH Annex XVII, Annex XIV, Candidate list, RoHS directive and Kid/Hemtex policy.

Chemical substance	CAS RN	Required Limit value (mg/kg)	Test method	Target material(s)
DIBP*	84-69-5	Sum of all listed <1000	Extraction and GC-MS, with possible reference to standards: EN ISO 14389:2022 EN ISO 18856:2005 CPSC-CH-C1001-09.3 ISO 8124-6 EN ISO 16181-1:2021 (footwear, Determination of phthalate with solvent extraction) EN ISO 16181-2:2021 (footwear, Determination of phthalate without solvent extraction)	PVC** PU EVA Rubber Paint Lacquers
DBP*	84-74-2			
BBP*	85-68-7			
DEHP*	117-81-7			
DMEP	117-82-8			
DNOP	117-84-0			
DIDP	26761-40-0, 68515-49-1			
DINP	28553-12-0, 68515-48-0			
DHNUP	68515-42-4			
DIHP	71888-89-6			
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0			
DIPP	605-50-5			
N-pentyl-iso pentylphthalate	776297-69-9			
DPP	131-18-0			
Dihexyl phthalate (DnHP)	84-75-3			
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4			
1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters with, 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5 68648-93-1			
DCHP (dicyclohexyl phthalate)	84-61-7			
Diisohexyl phthalate	71850-09-4			

* Regulated in RoHS directive for electrical and electronic equipment

**See separate requirement for PVC in this chapter and in PAR 3.5.8 and 4.2.5.16.

4.2.5.16 PVC, Polyvinylchloride

Requirement based on Kid/Hemtex policy, section 3.5.8 of PAR.

Chemical substance	CAS No	Requirement	Test method
PVC	9002-86-2	Packaging and products shall not contain PVC. Exceptions decided by Kid/Hemtex Management can be made if specific technical and/or quality requirements exist, and if there are no equivalent materials on the market. If exception is given, plasticizers DINP, DIDP, DNOP, and any plasticizers in the REACH candidate list, Bisphenols, SCCP, and the metal-based stabilizers tin (Sn), cadmium (Cd) and lead (Pb) are not allowed in the PVC.	Screening test: Beilstein/Flame test or XRF. (In case of positive screening test, FTIR test shall be performed) If decided exception, test: DINP, DIDP, DNOP, and any plasticizers. See also chapters Bisphenols, Short Chain Chlorinated Paraffines, Flame retardants, metal-based stabilizers tin (Sn), cadmium (Cd) and lead (Pb) and Organotin compounds for testing methods.

4.2.5.17 Siloxanes

Requirements based on REACH Candidate list and the Regulation (EC) No 1223/2009 on cosmetic products

Chemical substance	CAS No	Required Limit value (mg/kg)	Test method	Target material(s)
Octamethyltrisiloxane (D3)	107-51-7	Sum <1000	GC-MS	Textiles Cosmetic and personal care Paper and cardboard Polymers
Octamethylcyclotetrasiloxane (D4)	556-67-2			
Decamethylcyclopentasiloxane (D5)	541-02-6			
Dodecamethylcyclohexasiloxane (D6)	540-97-6			

4.2.5.18 Other product related chemicals

Chemical substance	CAS No	Required Limit value (mg/kg)	Test method	Target material(s)
2-(4-tert-butylbenzyl)propionaldehyde (BMHCA or Butylphenyl Methylpropional) and its individual stereoisomers Commonly known as <i>Lilial</i> , a synthetic fragrance with floral scent reminiscent of lily of the valley	75166-31-3 80-54-6 75166-30-2	Not detected		Cleaning agents, scented products, cosmetics Note: Cosmetics Reg. bans BMHCA
(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)	1782069-81-1 95342-41-9 852541-25-4 36861-47-9 741687-98-9 852541-30-1 852541-30-1	Sum < 1000		Cosmetics, sunscreen preparations.
Perchlorates	14797-73-0	60 mg/kg	LC-MS	Batteries (Lithium, coin cell)

Chemical substance	CAS No	Required Limit value (mg/kg)	Test method	Target material(s)
Aniline	62-53-3	< 10 mg/kg in toys intended for children under 36 months		Toys (textile, leather, polymers)

4.2.6 Biocidal agents

Biocidal agents are both used as process chemicals to prohibit growth of microbes in supply chain and as product related chemicals to render biocidal property to the finished article.

Kid/Hemtex do not accept any of its products having.

- Antibacterial treatment as additives if the active substances remain in the finished product as delivered.
- Anti mould finishes

Biocides used in production, storage or transport shall meet requirements in biocide regulation 528/2012 unless stated as limited in this PSR.

Requirements based on Biocidal Products Regulation BPR (EU) 528/2012, (existing biocides), REACH (restricted biocides) POPs Regulation, Water framework directive and Kid/Hemtex Policy and guidelines.

Biocidal substances with decision of non-approval shall be phased out within 180 days from the day of decision. <http://echa.europa.eu/regulations/biocidal-products-regulation/treated-articles>

Note requirements for other substances also with biocide function, such as:
Borate compounds, Toxic heavy metals, Organotin compounds

Chemical substance	CAS No	Limit value (mg/kg) adults children <36 months*		Test method	Target materials(s)
PHMB	27083-27-8 32289-58-0	Not detected		No standardised test method	Leather Textile Wood Polymers
Carbendazim	10605-21-7			GC-MS, LC-MS.	
Permethrin	52645-53-1			Textile: GC-MS, LC-MS Leather: EN ISO 22517 LoQ 5 mg/kg	
Zincpyrithion	13463-41-7			GC-MS, LC-MS. Detection limit 0,1 mg/kg	
Silver and its compounds	Several			ICP-MS, ICP-OES or AAS. Detection limit 0,1 mg/kg	
Methyl Bromide	74-83-9	1,0	0,5	EN 17134-1:2024 2-phenylphenol	
Ortho-phenyl phenol (OPP), (2-Phenyl phenol)	90-43-7	100	50		

Chemical substance	CAS No	Limit value (mg/kg) adults children <36 months*		Test method	Target materials(s)
Sodium Methylthiocarbamate	137-42-8	1,0	0,5	(OPP) in textile materials GC-MS, LC-MS	
Dimethylfumurate, DMFu	624-49-7	0,1	0,1	ISO/TS 16186	
Triclosan and Triclocarban	Triclosan: 3380-34-5, Triclocarban: 101-20-2	Not detected		EN 17134 (textiles) GC-MS, LC-MS Detection limit 10 mg/kg	
Cu-HDO	312600-89-8	1,0	1,0	ICP- AES	
Glutaral (Glutaraldehyd)	111-30-8	Not detected		LC-UV, GC-UV	
Kathone	55965-84-9	10	1,0	GC-MS analysis after extraction with ethyl acetate	Preservative aqueous materials, Cosmetics, Detergents
5-Chloro-2-methylisothiazolin-3(2H)-one	26172-55-4	7,5	0,75		
2-methylisothiazolin-3(2H)-one	2682-20-4	2,5	0,25		
1,2-Benzisothiazol 3(2h)One	2634-33-5	1,0	0,5		
2-Octyl-2h-Isothiazol-3-One	26530-20-1	1,0	0,5		
Parabenes (various) incl. Butyl 4-hydroxybenzoate (Butylparaben) and Isobutyl 4-hydroxybenzoate (isobutylparabene (IBP))	94-26-8 4247-02-3	100	Not detected	GC-MS, LC-MS	
Chlorinated Phenols					
Pentachlorophenol, PCP	87-86-5, 131-52-2	Not detected		ISO 17070 (leather)	Textile Leather Wood
Tetrachlorophenols TeCP	935-95-5 58-90-2 4901-51-3 And other isomers TeCP			EN 17134-2:2023 (textiles) LOQ 0.1 mg/kg CEN/TR 14823 (wood) EN ISO 15320 (Pulp, paper and board)	
Tributyltin compounds					
Tributyltin oxide (TBTO)	56-35-9	Not detected		EN ISO 22744-1, -2 (textiles)	Textile Leather
Tributyltin chloride	1461-22-9				
Tributyltin fluoride	1983-10-4				
Tributyltin methacrylate	2155-70-6				
Tributyltin benzoate	4342-36-3				
Tributyltin linoleate	24124-25-2				
				Possible reference to;	

Chemical substance	CAS No	Limit value (mg/kg) adults children <36 months*	Test method	Target materials(s)
Tributyltin naphthenate	85409-17-2		ISO/TS 16179 EN ISO 17353 (water and sediment)	
*''Items that might come into contact with children'' are products such as bed sheets, bed sets, pillowcases, towels, and similar products from Kid/Hemtex's assortment.				

4.2.7 Chemical testing procedure

The maximum limits shall never be exceeded in any product supplied to Kid/Hemtex. It is the supplier's responsibility to make sure that all chemical requirements are met.

Kid/Hemtex will on regular basis ask for test reports according to the below specified procedure. Kid/Hemtex reserve the right to perform inspections and tests on any ordered products, at any time and at any stage of production.

If any deviations from the requirements are found, Kid/Hemtex reserve the right to

- cancel the order,
- claim compensation or
- take any other action in accordance with the General Agreement.

All chemical testing shall be done according to instructions given in PSR Appendix 4.1, chapter 4.1.1 at laboratories approved and listed in chapter 4.1.2

Kid/Hemtex routine for testing chemicals is **based on two different way of work** and Kid/Hemtex will on regular basis ask for test reports according to below specified procedures:

1. One way is **random chemical testing** where one nominated chemical is tested each quarter. The target materials to be tested are defined in the instruction sent out each quarter. Approximately 10% of the orders placed by Kid/Hemtex at each supplier should be tested for the specified chemical each quarter, maximum 3 orders per supplier and quarter.
2. The other way is that Kid/Hemtex for every order test **the basic chemicals** included in the testing chart for quality requirements in Appendix 4.1.

In addition to above two ways of working, if there in Kid/Hemtex assortment are products that could have an increased risk of finding one of the restricted chemicals, Kid/Hemtex will choose specific chemicals for these products which is required to be tested on a regular basis during the year.

If a failed test report is received a decision how to handle the actual order will be taken and an action plan will be established. Three follow up tests on suppliers following orders will be included in the action plan.

4.2.7.1 Checklist for laboratories

This checklist is to be used by the laboratories performing tests for Kid/Hemtex items. The selected test methods in this PSR shall be used to the utmost extent.

If there are published EN or EN ISO or ISO methods available always use that method and clearly report in the test protocol. If other methods are used e.g., in-house test methods, always carefully answer each section below.

In case the applied EN, EN ISO or ISO method is modified by the test laboratory, always report these modified procedures in the test report.

All test reports should be signed by an authorised person at the laboratory.

Testing

For those chemical substances to be tested, where no official international standard test method exists, the test report should include the following:

4.2.7.1.1 Sample preparation

- Amount of specimen for preparation, weight, and size
- procedure of extraction, solvents used, and equipment used for extraction e.g., Soxhlet

4.2.7.1.2 Instrumental performance

- instrument used e.g GC-MS etc.
- lab specific detection limit(s) where preferably LOQ (limit of quantification) are reported
- standard deviation in analytical results

4.2.7.1.3 Other information of importance

- describe modified procedures from applied established ISO/EN standard methods if available.
- always present test results in mg/kg
- description of the recalculation from mg/kg if the test result is presented in another unit e.g ppm, ppb, ug/kg etc

4.2.7.1.4 Instruction to the laboratory

- always present the actual test result of the analysis and not any letter combinations if not properly described e.g N/A
- if not detected, report always below the actual LOQ (< LOQ) values



4.2.8 Chemical guideline overview

Below are examples and guidelines of what chemicals can most probably be found in which materials to help minimize the risk of product failure. Please note that the restricted and limited substances should not be found in quantities higher than stated in our requirement list in any of Kid/Hemtex products.

	Textile Material										Miscellaneous								
Substance	Natural material		Synthetic material				Prints for textile	Leather	Down	Metal		Plastic				Minerals		Wood	Adhesives and glues
	Cellulosic textile <small>(e.g., Cotton, Viscose, Flax)</small>	Proteinic natural textile <small>(e.g., Wool, Silk)</small>	PU-elastane	PES	PA	Acrylic, Modacrylic					Rubber	EVA	PU/TPU	PVC <small>(material or print)</small>	Melamine	Ceramic & Glass	Gipsym		
Process related chemicals																			
AP, APEO	X	X	X	X	X	X	X	X	X		X			X					
Bisphenols							X Thermal	X			X		X	X					
Chlorinated Organic Solvents and Carriers				X		X	X	X		X				X					X
Pesticides	X	X						X	X										
PAH			X				X	X			X Black	X Black	X Black	X	X Black				
Quaternary ammonium compounds	X			X	X	X	X							X					
Solvents			X			X	X	X Printed, coated				X	X	X	X				X
Organotin compounds			X	X	X	X	X	X			X	X	X	X					X
Melamine	X							X						X	X				
Product related chemicals																			
Aromatic Amines	X	X	X	X	X	X	X	X						X					
Borate compounds														X				X	
Benzotriazoles					X	X					X	X	X	X					
Dyes Pigment Colorants														X				X Coloured paper	



	Textile Material										Miscellaneous								
Substance	Natural material		Synthetic material				Prints for textile	Leather	Down	Metal	Rubber	Plastic				Minerals		Wood	Adhesives and glues
	Cellulosic textile (e.g., Cotton, Viscose, Flax)	Proteinic natural textile (e.g., Wool, Silk)	PU-elastane	PES	PA	Acrylic, Modacrylic						EVA	PU/TPU	PVC (material or print)	Melamine	Ceramic & Glass	Gipsym		
CMR	X	X	X	X	X	X	X	X						X					
Allergenic Dyes				X	X	X	X							X					
Pigment Salts							X			X	X	X	X	X	X	X			
Flame retardants	X	X	X	X	X		X						X	X					
Formaldehyde	X	X					X	X						X	X			X	X
Toxic Heavy Metals & their compounds:														X					
- Antimony, Sb				X										X					
- Arsenic, As																X	X	X	
- Cadmium, Cd			X	X	X		X	X Coated		X Enameld	X	X	X	X		X		X	
- Chromium VI and its compounds		X			X			X		X Chromating				X					
- Chromium, Cr										X				X					
- Cobalt, Co		X			X					X Deep blue green				X		X Deep blue green			
- Copper, Cu		X			X									X				X	
- Lead, Pb							X			X Brass	X	X	X	X		X Black			
- Mercury, Hg							X			X	X	X	X	X			X	X	
- Nickel, Ni										X				X					
PFAS	X Water repellent anti-pilling	X Anti-pilling	X Water repellent Anti-pilling				X Surfactant	X Coated	X	X Chromating				X					
Phthalates			X				X	X			X		X	X					X
Biocidal agents	X	X	X	X	X	X	X	X	X		X	X	X	X				X	X

**4.2.9 Revision log ver. 2.0 - 2025: Chapter 4.2 PSR Chemical.**

Version 1.5	Change
4.2.1	<ul style="list-style-type: none">- Non-substantive edit to the text- Throughout the document, replace old abbreviation 'HPI' with 'PSR'
4.2.2	<ul style="list-style-type: none">- Minor formatting update to table rows.- Added General Product Safety Regulation 2023/988.- Added Batteries Directive 2006/66/EC as amended and new Batteries Regulation (EU) 2023/1542.- Added Packaging and Packaging Waste Regulation 2025/40 (PPWR).- Added Ban on BPA and other bisphenols and bisphenol derivatives in FCM per Regulation (EU) 2024/3190- Added Commission Regulation (EU) 2025/351 on plastic FCMs- Removed information about exceptions for sensitizing substances.
4.2.3	<ul style="list-style-type: none">- Updated date in first sentence of first paragraph, and reference to section 4.2.2 in first paragraph.- Added clarity on certification requirement that all textiles in contact to skin and in the home shall be certified to OEKO-TEX® STANDARD 100®- Added bold formatting to section on 'Chemical requirements concerning EEE product; updated link to the Declarable Substances List (DSL) on the International Electrotechnical Commission website 'EC 62474 - Material Declaration for Products of and for the Electrotechnical Industry'; and added text for additional clarity.- Added information on that Kid/Hemtex EEE product must comply with the limits in the RoHS Directive. Kid/Hemtex does not accept the use of any RoHS Directive exemptions. Any proposal to use an exemption under the RoHS Directive must be approved in advance and in writing by Kid/Hemtex.- Added REACH, Annex XVII, entry 78 restriction on synthetic polymer microparticles.
4.2.4.1	<ul style="list-style-type: none">- Update for clarity on EN ISO 18218-1 and 18218-2 for APEO in leather- Added full chemical name of TNPP
4.2.4.2	<ul style="list-style-type: none">- Added Bis(4-chlorophenyl) sulphone (BPCS)- Updated the test methods to EN ISO 11936 (leather) and minor formatting- Added ban of BPA in FCM per Commission Regulation (EU) 2024/3190
4.2.4.4	<ul style="list-style-type: none">- Updated the test methods for all Isocyanates to: EN 13999-4:2007+A1:2009 (adhesives); EN ISO 10283:2007 (paints and varnishes) and EN ISO 14896:2009 (Polyurethane materials)
4.2.4.8	<ul style="list-style-type: none">- Added prEN 17131-1 (textile) for testing DMAC and NMP- Updated 1,4-dioxane, CAS 123-91-1 to 10 mg/kg per OEKO-TEX STANDARD 100 new limitations on SVHCs
4.2.4.10	<ul style="list-style-type: none">- Added Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (TPO); CAS 75980-60-8- Added Bis(α,α-dimethylbenzyl) peroxide (also called Dicumyl peroxide) as SVHC- Added 6-[(C10-C13)-alkyl-(branched, unsaturated)-2,5-dioxopyrrolidin-1-yl]hexanoic acid as SVHC- Added Reaction mass of triphenylthiophosphate and tertiary butylated phenyl derivatives as SVHC- Added prEN ISO 13144 for testing quinoline
4.2.5.1	<ul style="list-style-type: none">- Added clarity on test method for 4-Aminoazobenzene, CAS 60-09-3
4.2.5.3	<ul style="list-style-type: none">- Updated to reflect POPs requirement for UV-328 and LOQs for all substances
4.2.5.4	<ul style="list-style-type: none">- Updated test methods for CMR dyes and allergenic dyes where the method valid since 2014 for extractable dyes is EN ISO 16373-2:2014 (textile), but the solvent used in this method is pyridine, which is very dangerous and unpleasant to handle for many labs, whereby these labs refused to perform this analysis according to EN ISO 16373-2:2014. Thus, Germany has proposed an alternative method, DIN 54231:2022-09, which uses methanol, which is



	considered "kinder" than pyridine. DIN 54231:2022-09 is available in both English and German and has been proposed as a new EN standard and would thus replace EN ISO 16373-2:2014 (textile) when approved.
4.2.5.6	<ul style="list-style-type: none">- Updated to clearly reflect POPs requirement for Dechlorane™ Plus as not detected- Added O,O,O-triphenyl phosphorothioate (TPPT), CAS 597-82-0 as SVHC
4.2.5.7	<ul style="list-style-type: none">- Formaldehyde release – new restriction in entry 77 regarding the following: Formaldehyde shall not be placed on the market in articles, after 6 August 2026, if, under Chamber method test conditions, the concentration of formaldehyde released from those articles exceeds: 0,062 mg/m³ for furniture and wood-based articles 0,080 mg/m³ for articles other than furniture and wood-based articles Note: Exceptions apply, such as PPE, FCM, and content of formaldehyde in textiles within EU/EEA applies to REACH annex XVII entry 72 since 1 November 2020. This restriction replaces several national restrictions in EU/EEA, such as emissions from resin-bonded wooden toys in the Toy Safety Directive (TSD), so follow entry 77 in that case.
4.2.5.8	<ul style="list-style-type: none">- Updated reference to the General Product Safety Regulation (EU) 2023/988 (GPSR)
4.2.5.9	<ul style="list-style-type: none">- Updated test method to: EN 12472:2020 (simulation of accelerated wear and corrosion) EN 1811:2023 (migration test of coated or non-coated items) for nickel-plated objects
4.2.5.10	<ul style="list-style-type: none">- Updated to reflect new EU Packaging and Packaging Waste Regulation (PPWR)
4.2.5.11	<ul style="list-style-type: none">- Updated to reflect RoHS policy in section 4.2.3.- Updated for lead in PVC, where articles shall not be placed on the market, if the concentration of lead is equal to or greater than 0,1 % by weight of the PVC material, which shall apply with effect from 29 November 2024.- Updated related to PVC policy in section 4.2.5.16.
4.2.5.13	<ul style="list-style-type: none">- Updated test method to EN 1811:2023 for nickel-plated objects
4.2.5.14	<ul style="list-style-type: none">- Updated PFHxS and its related substances for further clarity.- Updated test schedule for PFAS per Textile Importers recommended test schedule and RISE new test standard to measure PFAS in textiles EN 17681-1:2025- Per RISE Jan 2025 Update, EN/TS 15968 for testing PFOS was removed as it was withdrawn 1 May 2024, and replaced by EN 17681-1:2025, which introduces significant changes in the extraction method, leading to greater detection of PFAS compounds. Specifically, EN 17681-1:2025 uses alkaline hydrolysis, which breaks covalent bonds in certain side chain fluorinated polymers, resulting in the release and detection of additional PFAS compounds such as fluorotelomer alcohols (FTOHs) compared to previous method.- Removed the text related to 'PFAS impurities are accepted ...'- Noted the new PFHxA restriction in REACH, Annex XVII, entry 79.- Added Perfluamine, CAS 338-83-0 as SVHC, included in the Candidate list 21 January 2025- Added clarity that PFAS ban applies to both product and packaging.- Formatting updated
4.2.5.15	<ul style="list-style-type: none">- Clarification regarding analysis of phthalates in footwear EN ISO 16181-1:2021 (footwear, Determination of phthalate with solvent extraction) EN ISO 16181-2:2021 (footwear, Determination of phthalate without solvent extraction)
4.2.5.16	<ul style="list-style-type: none">- Formatting updated
4.2.5.17	<ul style="list-style-type: none">- Added Octamethyltrisiloxane (D3), CAS 107-51-7
4.2.5.18	<ul style="list-style-type: none">- Updated to reflect Cosmetics Regulation ban of BMHCA per March 2022, additional names of BMHCA, and new Kid Group policy for it not to be detected in any product (household cleaning agent, candles, etc., as well as cosmetics) due to it being found by the Scientific Committee on Consumer Safety to be harmful to the reproductive system, affecting fertility and posing risk to an unborn child's health. It could also lead to skin sensitisation and is



	being studied as a substance that could disrupt the endocrine (hormone) system. New Kid Group policy also due to significant (thousands) of product recalls alerted on EU Safety Gate, which as of 2024 the number of alerts are steadily increasing each year since 2022 for both high-priced, trusted brands and lesser-known, low-priced brands.
4.2.6	<ul style="list-style-type: none">- Updated test method for PCP and TeCP to EN 17134-2:2023 for textiles LOQ 0.1 mg/kg.- Removed test method for PCP and TeCP 'XP G 08-015 (PCP in textiles) with detection limit: 0.05 mg/kg'.- Updated (update marked yellow) test method for the biocides OPP and triclosan in textile materials EN 17134-1:2024 (2-phenylphenol (OPP) and triclosan in textile materials)
4.2.8	<ul style="list-style-type: none">- Updated the table to reflect PVC in the materials on the y-axis
4.2.9	<ul style="list-style-type: none">- Update Revision Log to reflect changes in version 1.5 in May 2025