

EXPLANATORY GUIDE ON THE RESTRICTION ON CMRs 1A and 1B IN TEXTILES AND CLOTHING

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The purpose of this explanatory guide is to clarify the scope of the articles intended to be covered by the Commission Regulation Commission Regulation (EU) 2018/1513 of 10 October 2018 amending Annex XVII to REACH Regulation as regards certain substances classified as carcinogenic, mutagenic or toxic for reproduction (CMR) category 1A or 1B (entry 72 of REACH, Annex XVII).

The list of articles below is not exhaustive but aims to give illustrate examples of products available for use by consumers that are considered as being covered by the restriction, in particular by paragraph 1(a) clothing and related accessories, and paragraph 1(b) textiles other than clothing which, under normal or reasonably foreseeable conditions of use, come into contact with human skin to an extent similar to clothing.

The restriction covers products of the categories in paragraphs 1(a) - 1(c) that consumers acquire themselves, but also products they use in a private capacity or when using a product within the context of a service provided to the general public (e.g. bed linen in a hospital or upholstery in a public library).

For deciding whether other articles not listed below are to be interpreted as being covered (point 1 below), or not covered (point 2 below), by the restriction, a case-by-case assessment is necessary. Such a case-by-case assessment is to be undertaken considering the wording of the restriction; the examples given can provide useful elements for this assessment.

With regards to concentration limits in Appendix 12, where different concentration limits are set in other entries in Annex XVII to REACH or in other EU legislation, the stricter limits always apply. This refers, amongst other, to the limits set in entry 50 on Polycyclic-aromatic hydrocarbons (PAH) and in the Toy Safety Directive 2009/48/EC.

Finally, in point 3, this guide also provides for a list of available analytical methods in certain matrixes that can be used for the determination of the different substances. It is suggested to use the most performant method. The list is not exhaustive and some of the methods might require some adaptations depending on the matrix.

1. The restriction intends to cover

- Clothing and related accessories, such as:
 - tops, shirts, blouses,
 - underwear,
 - nightwear,
 - hosiery (e.g. socks, pantyhose, stockings, leggings),
 - trousers, pants,
 - jackets, coats, rain coats, capes,
 - dresses, skirts,
 - suits,
 - sportswear,

- swimwear (e.g. swimsuits, bikinis, swimming trunks),
 - gloves (including latex gloves not covered by Regulation (EU) 2016/425 of the European Parliament and of the Council on personal protective equipment or Regulation (EU) 2017/745 of the European Parliament and of the Council on medical devices), mittens, muffs,
 - scarves, shawls, stoles,
 - ties, cravats,
 - hats, caps, bonnets, veils,
 - bags, like handbags, backpacks, briefcases,
 - wristwatch straps,
 - fancy dress and disguise costumes¹
- textiles other than clothing which come into contact with the human skin under normal or reasonably foreseeable condition of use to an extent similar to clothing, such as
 - bed linen (e.g. sheets, duvet covers, pillow cases),
 - blankets, throws,
 - upholstery (fabric covering chairs, armchairs and sofas etc.),
 - cushion covers,
 - bathrobes, towels,
 - re-usable nappies and sanitary towels,
 - sleeping bags,
 - yarn and fabrics intended for use by the final consumer,
- Footwear

Prints and coatings applied directly on textile article surfaces (such as decorations or logos) are covered by the restriction.

2. The following are not intended to be covered by the restriction

- Accessories not related to clothing, such as jewellery, glasses and sunglasses,
- Curtains,
- Wall-to-wall carpets and textile floor coverings for indoor use, rugs and runners,
- textile lampshades and wall decorations,
- napkins and table linen,
- filling materials in chairs, armchairs and sofas,
- clothing, related accessories or footwear, or parts thereof, made exclusively of natural leather, fur or hide,
- non-textile fasteners or decorative attachments (other than prints) , such as buttons, zips, Velcro, rivets, press studs, clasps or buckles, fasteners, eye(let)s, snap fasteners, toggles, hooks, rings, sequins, beads, pearls, stones or metallic mesh. Prints and coatings are not considered decorative attachments in the sense of this exemption.

¹ If the Toy Safety Directive 2009/48/EC establishes lower limits for the substances covered in this restriction, those limits would apply.

- second hand articles,
- disposable nappies and sanitary towels,
- articles within the scope of Regulation (EU) 2016/425 of the European Parliament and of the Council on personal protective equipment,
- articles within the scope of Regulation (EU) 2017/745 of the European Parliament and of the Council on medical devices

3. List of available analytical methods for substances covered by the restriction

CAS No.	EC No.	Substances	Concentration limit by weight	Analytical method
50-00-0	200-001-8	Formaldehyde	75 mg/kg	EN ISO 14184-1:2011 Textiles - Determination of formaldehyde Part 1: Free and hydrolysed formaldehyde (water extraction method) Possible alternative: ISO 17226-1:2008
-	-	Cadmium and its compounds (listed in Annex XVII, Entry 28, 29, 30, Appendices 1-6)	1 mg/kg (expressed as Cd metal that can be extracted from the material)	EN 16711-2:2015 Textiles Determination of metal content - Part 2: Determination of metals extracted by acidic artificial perspiration solution
-	-	Chromium VI compounds (listed in Annex XVII, Entry 28, 29, 30, Appendices 1-6)	1 mg/kg (expressed as Cr VI that can be extracted from the material)	EN ISO 17075-1:2017 Leather -- Chemical determination of chromium(VI) content in leather - Part 1: Colorimetric method EN ISO 17075-2 :2017 Leather -- Chemical determination of chromium(VI) content in leather - Part 2: Chromatographic method (in case of interferences as confirmation method) DIN 38405 Oekotex ST 201 M10ML102017
-	-	Arsenic compounds (listed in Annex XVII, Entry 28, 29, 30, Appendices 1-6)	1 mg/kg (expressed as As metal that can be extracted from the material)	EN 16711-2:2015 Textiles Determination of metal content - Part 2: Determination of metals extracted by acidic artificial perspiration solution
-	-	Lead and its compounds (listed in Annex XVII, Entry 28, 29, 30, Appendices 1-6)	1 mg/kg (expressed as Pb metal that can be extracted from the material)	EN 16711-2:2015 Textiles Determination of metal content. Part 2: Determination of metals extracted by acidic artificial perspiration solution
5216-25-1	226-009-1	<i>α, α, α, 4</i> -tetrachlorotoluene; p-chlorobenzotrithloride	1 mg/kg	DIN 54232:2010 Textiles - Determination of the content of bonds based on chlorobenzene and chlorotoluene
98-07-7	202-634-5	<i>α, α, α</i> -trichlorotoluene; benzotrithloride	1 mg/kg	DIN 54232:2010 Textiles - Determination of the content of bonds based on chlorobenzene and chlorotoluene

100-44-7	202-853-6	α -chlorotoluene; benzyl chloride	1 mg/kg	DIN 54232:2010 Textiles - Determination of the content of bonds based on chlorobenzene and chlorotoluene
71888-89-6	276-158-1	1,2-benzenedicarboxylic acid; di-C 6-8-branched alkylesters, C 7-rich	1000 mg/kg (individually or in combination with other phthalates in this entry)	EN ISO 14389:2014 Textiles -Determination of the phthalate content - Tetrahydrofuran method
117-82-8	204-212-6	Bis(2-methoxyethyl) phthalate	1000 mg/kg (individually or in combination with other phthalates in this entry)	EN ISO 14389:2014 Textiles -Determination of the phthalate content - Tetrahydrofuran method
605-50-5	210-088-4	Diisopentylphthalate	1000 mg/kg (individually or in combination with other phthalates in this entry)	EN ISO 14389:2014 Textiles -Determination of the phthalate content - Tetrahydrofuran method
131-18-0	205-017-9	Di- <i>n</i> -pentyl phthalate (DPP)	1000 mg/kg (individually or in combination with other phthalates in this entry)	EN ISO 14389:2014 Textiles -Determination of the phthalate content - Tetrahydrofuran method
84-75-3	201-559-5	Di- <i>n</i> -hexyl phthalate (DnHP)	1000 mg/kg (individually or in combination with other phthalates in this entry)	EN ISO 14389:2014 Textiles -Determination of the phthalate content - Tetrahydrofuran method
872-50-40	212-828-1	<i>N</i> -methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone (NMP)	3000 mg/kg	CEN ISO/TS 16189:2013 Footwear - Critical substances potentially present in footwear and footwear components - Test method to quantitatively determine dimethylformamide in footwear materials
127-19-5	204-826-4	<i>N,N</i> -dimethylacetamide (DMAC)	3000 mg/kg	CEN ISO/TS 16189:2013 Footwear - Critical substances potentially present in footwear and footwear components - Test method to quantitatively determine dimethylformamide in footwear materials
68-12-2	200-679-5	<i>N,N</i> -dimethylformamide; dimethyl formamide (DMF)	3000 mg/kg	CEN ISO/TS 16189:2013 Footwear - Critical substances potentially present in footwear and footwear components - Test method to quantitatively determine dimethylformamide in footwear materials
71-43-2	200-753-7	Benzene	5 mg/kg	e.g. VDA 278 - Thermal Desorption Analysis of Organic Emissions for the Characterization of Non-Metallic Materials for Automobiles
56-55-3	200-280-6	Benz[<i>a</i>]anthracene	1 mg/kg	AFPS GS 2014

				Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of GS mark certification
205-99-2	205-911-9	Benz[<i>e</i>]acephenanthrylene	1 mg/kg	AFPS GS 2014 Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of GS mark certification
50-32-8	200-028-5	benzo[<i>a</i>]pyrene; benzo[<i>def</i>]chrysene	1 mg/kg	AFPS GS 2014 Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of GS mark certification
192-97-2	205-892-7	Benzo[<i>e</i>]pyrene	1 mg/kg	AFPS GS 2014 Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of GS mark certification
205-82-3	205-910-3	Benzo[<i>j</i>]fluoranthene	1 mg/kg	AFPS GS 2014 Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of GS mark certification
207-08-9	205-916-6	Benzo[<i>k</i>]fluoranthene	1 mg/kg	AFPS GS 2014 Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of GS mark certification
218-01-9	205-923-4	Chrysene	1 mg/kg	AFPS GS 2014 Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of GS mark certification
53-70-3	200-181-8	Dibenz[<i>a,h</i>]anthracene	1 mg/kg	AFPS GS 2014 Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of GS mark certification
548-62-9	208-953-6	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride; C.I. Basic Violet 3 with $\geq 0,1$ % of Michler's ketone (EC no. 202-027-5)	50 mg/kg	EN ISO 16373-2:2014 Textiles - Dyeuffs - Part 2: General method for the determination of extractable dyeuffs including allergenic and carcinogenic dyeuffs (method using pyridine-water) DIN 54231:2005 Textiles - Detection Of Disperse Dyeuffs
2475-45-8	219-603-7	1,4,5,8-tetraaminoanthraquin	50 mg/kg	DIN 54231:2005 Textiles - Detection Of

		one; C.I. Disperse Blue 1		Disperse Dyestuffs
569-61-9	209-321-2	Benzenamine, 4,4'-(4-iminocyclohexa-2,5-dienylidenemethylene)dianiline hydrochloride; C.I. Basic Red 9	50 mg/kg	EN ISO 16373-2:2014 Textiles - Dyestuffs - Part 2: General method for the determination of extractable dyestuffs including allergenic and carcinogenic dyestuffs (method using pyridine-water) DIN 54231:2005 Textiles - Detection Of Disperse Dyestuffs
3165-93-3	221-627-8	4-chloro- <i>o</i> -toluidinium chloride	30 mg/kg	EN ISO 14362:2017 Textiles -- Methods for determination of certain aromatic amines derived from azo colorants -- Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres
553-00-4	209-030-0	2-Naphthylammonium acetate	30 mg/kg	EN ISO 14362:2017 Textiles -- Methods for determination of certain aromatic amines derived from azo colorants -- Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres
39156-41-7	254-323-9	4-methoxy- <i>m</i> -phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	30 mg/kg	EN ISO 14362:2017 Textiles -- Methods for determination of certain aromatic amines derived from azo colorants -- Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres
21436-97-5	-	2,4,5-trimethylaniline hydrochloride	30 mg/kg	EN ISO 14362:2017 Textiles -- Methods for determination of certain aromatic amines derived from azo colorants -- Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres
91-22-5	202-051-6	Quinoline	50 mg/kg	Extraction with methanol or THF, analysis by HPLC-MS/MS or HPLC-DAD