



H&M GROUP CHEMICAL RESTRICTIONS 2024

RESTRICTED SUBSTANCES LIST (RSL)

Electrical and Electronic Products and Batteries

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

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General

H&M Group Chemical Restrictions consist of several parts regarding different product types; this document concerns Chemical Restrictions for Electrical and Electronic Products and Batteries.

An introduction to and general information about the H&M Group Chemical Restrictions are available in a separate document: *H&M Group Restricted Substance List (RSL) Introduction and Commitment - All Product Types, document ID 00432*. Please read that document and refer to the examples provided there, before proceeding with the product specific restrictions.

Each limit specified in this document is valid for homogeneous parts of the concerned product if not otherwise stated. Test methods are specified when relevant in this document. In case of undated test method, the latest version is valid.

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.
Homogeneous	Uniform composition throughout, i.e. a material that cannot be mechanically disjointed into different materials.
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.
ppm	Parts per million, which is the same as mg/kg.
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
SVHC	Substances of Very High Concern

Requirements – All Electric and Electronic Equipment

Requirement	Limit/requirement
EU Directive 2011/65/EU – RoHS¹	All electrical and electronic equipment must comply with EU directive 2011/65/EU including its amendments. Valid test reports and certificates must be available. Test method: IEC 62321
China RoHS²	All electrical and electronic equipment destined for China must be tested and comply with China RoHS. Test method: GB/T 26572

Requirements – Materials

Restricted substance	CAS no	Concentration Limit/Requirement	Test method
Biocidal compounds	Various	Are not allowed to be used without approval by H&M Group	Input control
Flame Retardants³			
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
Organotin Compounds			
Dibutyltin (DBT)	1002-53-5	1 ppm	ISO/TS 16179 (modified) Methanol/Ethanol extraction, derivatization and analysis by GC-MS
Diocetyl tin (DOT)	94410-05-6	1 ppm	
Tributyltin (TBT)	56573-85-4	Sum = Not detected	
Tricyclohexyltin (TCyHT)	6056-50-4		
Triocetyl tin (TOT)	250252-89-2		
Triphenyltin (TPhT)	668-34-8		
Other not listed trisubstituted organotins	Various	Sum < 1 ppm	

¹ Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

² Administrative Measure on the Control of Pollution Caused by Electrical and Electronic Products.

³ H&M Global Product Compliance Department must approve the usage of any flame retardant on any kind of product. Please contact your local Production Office.

Restricted substance	CAS no	Concentration Limit/Requirement	Test method
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)
Lead (Pb), Total Amount Accessible parts (in products for children up to 12 years old) and in Paint and Other Similar Surface Coatings	7439-92-1	90 ppm	Metal Products: CPSC-CH-E1001-08.3 Non-Metal Products: CPSC-CH-E1002-08.3 In Paint and Other Similar Surface Coatings: CPSC-CH-E1003-90.1

Restricted substance	CAS no	Concentration Limit/Requirement	Test method
<p>Nanomaterials</p> <p>“Nanomaterial” means a natural, incidental or manufactured material consisting of solid particles that are present, either on their own or as identifiable constituent particles in aggregates or agglomerates, and where 50 % or more of these particles in the number-based size distribution fulfil at least one of the following conditions:(a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm;(b) the particle has an elongated shape, such as a rod, fibre or tube, where two external dimensions are smaller than 1 nm and the other dimension is larger than 100 nm;(c) the particle has a plate-like shape, where one external dimension is smaller than 1 nm and the other dimensions are larger than 100 nm.⁴</p>	Various	Usage ban ⁵	Input control
<p>Nickel (Ni), Extractable Amount</p> <p>In metal products or parts of products in direct and prolonged skin contact</p>	7440-02-0	Maximum release: 0.5 µg/cm ² /week	EN 1811+A1
<p>Per- and polyfluorinated compounds (PFC/PFAS)</p> <p>All per- and polyfluorinated compounds</p>	Various	Usage ban ⁵	Input control

⁴ European commission recommendation on the definition of nanomaterial ((2022/C 229/01), Official Journal of the European Union, 14.06.2022.

⁵ The substance(s) must not be used in production and must not be added to the product.

Restricted substance	CAS no	Concentration Limit/Requirement	Test method
Polyaromatic hydrocarbons (PAH)⁶			AfPS Extraction with toluene followed by GC-MS analysis (reporting limit 0.2 ppm)
Benzo[a]anthracene	56-55-3	<1 ppm	
Benzo[a]pyrene	50-32-8	<1 ppm	
Benzo[b]fluoranthene	205-99-2	<1 ppm	
Benzo[e]pyrene	192-97-2	<1 ppm	
Benzo[j]fluoranthene	205-82-3	<1 ppm	
Benzo[k]fluoranthene	207-08-9	<1 ppm	
Chrysene	218-01-9	<1 ppm	
Dibenzo[a,h]anthracene	53-70-3	<1 ppm	
Phthalates			Extraction with THF/CAN and analysis by HPLC-DAD-MS, confirmation test for DBP using GC-MS (reporting limit 50 ppm)
Butyl benzyl phthalate (BBP)	85-68-7	500 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	
Polyvinylchloride (PVC)⁷			Beilstein's test and infrared spectroscopy (IR) with or without chemical separation
Polyvinylchloride (PVC)	9002-86-2	Not detected	
Polyvinylidenchloride	9002-85-1		
Polychloroprene	9010-98-4		
All other chlorinated polymers	Various		
Bisphenol A in Polycarbonate (PC)	80-05-7	Extractable amount: 3 mg/kg	Extraction: artificial sweat solution ISO 105 E04. Analysis by LC-MS

⁶ Only for articles with direct as well as prolonged or short-term repetitive contact with the human skin, made of plastic or rubber.

⁷ Luminaire cables and cords are exempt from this restriction until further notice

Restricted substance	CAS no	Concentration Limit/Requirement	Test method
SVHC Check ECHA website for the updated list ⁸	Various	1000 ppm in each homogenous part of the product, except if lower limit applies as per other parts of this document.	Combine screening using ICP-MS, GC-MS, and LC-TOF.
Substances defined as hazardous due to intrinsic properties Criteria for hazardous as defined in REACH Article 57 ⁹	Various	1000 ppm, except if lower limit applies as per other parts of this document	

⁸ http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

⁹ REACH Regulation (EC) No 1907/2006 <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02006R1907-20150601&from=EN>

Requirements - Batteries

Restricted substance	CAS no	Concentration Limit/Requirement	Test method
All Batteries must comply with EU Directive 2006/66/EU¹⁰ and 2013/56/EU¹¹ including its amendments.			
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	

¹⁰ <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32006L0066&from=EN>

¹¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:329:0005:0009:EN:PDF>