



H&M Chemical Restrictions 2017

Restricted Substance List (RSL)

Electrical and Electronic Products and Batteries 2017

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General

H&M has established H&M Chemical Restrictions for all products due to concern for the health of customers as well as for the environment and working conditions. H&M Chemical Restrictions consist of several parts with regards to product type. This document concerns Electrical and Electronic Products and Batteries. Each limit in H&M Chemical Restrictions is valid for homogeneous parts of the concerned product. Test methods are specified but in case of undated test method, the latest version is valid. If the product is sold in a packaging, it must also comply with *H&M Chemical Restrictions Packages*¹.

In addition to this part of the H&M Chemical Restrictions, production of Electrical and Electronic Products and Batteries must also fulfill H&M Chemical Restrictions regarding the Manufacturing Restricted Substance List (MRSL). These documents are to be found on the Supplier Portal as well as on www.hm.com/chemical-restrictions.

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

Commitment

By accepting H&M Standard Purchase Conditions, the Supplier commits to comply with H&M Chemical Restrictions. It is the Supplier's responsibility to assure compliance with H&M Chemical Restrictions and to inform all their downstream suppliers and subcontractors about the content of H&M Chemical Restrictions.

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


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

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

¹ Publicly available

Examples

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

	<ul style="list-style-type: none"> ➤ Watches Wristband should follow H&M Chemical Restrictions Apparel/Accessories/Footwear/Home Interior Textile Products ➤ Ear phones ➤ Lamps ➤ Portable batteries
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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 - Electrical and Electronic Products

Restricted substance	CAS no	Concentration Limit/Requirement	Test method
All Electrical and Electronic products must comply with EU Directive 2011/65/EU² including its amendments and China RoHS. Products should be labelled accordingly.			
Cadmium (Cd)	7440-43-9	100 ppm	EN 62321-2009
Chromium VI (Cr ⁶⁺)	7440-47-3	1000 ppm	GB/T 26572-2011
Lead (Pb)	7439-92-1	1000 ppm	
Mercury (Hg)	7439-97-6	1000 ppm	
Polybrominated Biphenyls (PBB)	Various	1000 ppm	
Polybrominated Diphenylethers (PBDE)	Various	1000 ppm	
Chlorinated Flame Retardants			Methanol extraction and analysis by GC-MS and LC-MS
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	1000 ppm	
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	13674-87-8	1000 ppm	
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)

² Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment

Restricted substance	CAS no	Concentration Limit/Requirement	Test method
Lead (Pb), Total Amount Accessible parts and in Paint and Other Similar Surface Coatings (in products for children up to 12 years old)	7439-92-1	90 ppm	Children's Metal Products: CPSIA Standard Operating Procedure, Revision (CPSC-CH-E1001-08.3) Children's Non-Metal Products: CPSIA Standard Operating Procedure, Revision (CPSC-CH-E1002-08.3) In Paint and Other Similar Surface Coatings: CPSIA Standard Operating Procedure for Determining Lead in Paint, Revision (CPSC-CH-E1003-90.1)
Nickel (Ni), Extractable Amount In metal products or parts of products in direct and prolonged skin contact	7440-02-0	Maximum release: 0.5 µg/cm ² /week	EN 1811+A1
Odor		Grade 2 – not unpleasant	Smell test SNV 195 651
Polyaromatic hydrocarbons (PAH)³			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	

³ Only for articles with direct as well as prolonged or short-term repetitive contact with the human skin, made of plastic and rubber.

Restricted substance	CAS no	Concentration Limit/Requirement	Test method
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)		Not detected	Beilstein's test and infrared spectroscopy (IR) with or without chemical separation
Polyvinylchloride (PVC)	9002-86-2		
Polyvinylidenchloride	9002-85-1		
Polychloroprene	9010-98-4		
All other chlorinated polymers	Various		
SVHC Check ECHA website for the updated list ⁴	Various	1000 ppm in each homogenous part of the product, except if lower limit applies as per other parts of this document.	
Substances defined as hazardous due to intrinsic properties Criteria for hazardous as defined in REACH Article 57 ⁵	Various	1000 ppm, except if lower limit applies as per other parts of this document	

⁴ http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

⁵ 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/EU⁶ and 2013/56/EU⁷ 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	

⁶ <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32006L0066&from=EN>

⁷ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:329:0005:0009:EN:PDF>