

## List of restricted Substances for all Hinston Product

substance	CAS No	Requirement	Limit	Remarks
<b>Flame retardants</b>				
Polybromobiphenyls (PBB)		2011/65/EC RoHS	1000mg/kg	
Brominated biphenyl ether (PBDE)		2011/65/EC RoHS	1000mg/kg	
Hexabromocyclododecane (HBCDD)	25637-99-4	EU 2016/293 Nr.: 850/2004	<0,01% per substances, preparations or articles	<0,01% per homologue material
Tris-(2,3-dibromopropyl-) Phosphate (TRIS)	126-72-7	1907/2006 Annex XVII (76/769/EEC)	No use of	No use of
Tris-(aziridinyl)-phosphin oxide (TEPA)	5455-55-1	1907/2006 Annex XVII (76/769/EEC)	No use of	No use of
Bis-(2,3-dibromopropylether) of Tetrabromobisphenol (BDBPT)	21850-44-2	1907/2006 Annex XVII (76/769/EEC)	No use of	No use of
Bis(2,3-dibromopropyl) phosphate	5412-25-9	1907/2006 Annex XVII (76/769/EEC)	No use of	No use of
<b>TinOrganicCompounds</b>				
Monobutyltin(MBT)			1,0 mg/kg	Minimum area 1dm <sup>2</sup>
Dibutyltin(DBT)	1002-53-5 77-58-7		1,0 mg/kg	Minimum area 1dm <sup>2</sup>
Tributyltin	56573-85-4 1461-22-9- 688-73-3	1907/2006 REACH	0,5 mg/kg	Minimum area 1dm <sup>2</sup>
<b>Metal</b>				
Chromium VI	18450-29-9	2011/65/EC RoHS Fake leather, leather	1000 mg/kg  n.d.	
Mercury and his compounds	7439-97-6	RoHS BatteryVO	1000 mg/kg 0,0005%	

Substance	CAS No	Requirement	Limit	Remarks
		(BattG)		
Lead	7439-92-1	2011/65/EC RoHS BatteryVO (BattG)	1000 mg/kg 0,004%	
Cadmium and his compounds	7440-43-9	2011/65/EC RoHS BatteryVO (BattG)	100 mg/kg 0,002%	
Arsenic		1907/2006 REACH	<0,1 %	
Nickel		1907/2006 REACH	Nickel-rubbing-test <0,5µg/cm <sup>2</sup> /week	All metal surfaces with longer skin contact
Chlorinated Phenols				
Pentachlorphenol (PCP)	87-86-5	ChemVerbots VO	0,5mg/kg	
Tetrachlorphenol (TeCP)	935-95-5 4901-51-3	Common requirements	0,5mg/kg	
Trichlorophenol (TriCP)	25167-82-2	Common requirements	0,5mg/kg	
Azo Dyes				
(4)p-aminoazobenzene	60-09-3	1907/2006 REACH	<20mg/kg  <20mg/kg	
Disperse Dyes & carcinogenic Dyestuffs		§ 64 LFGB B 82.02-10 DIN 54321	<5mg/kg  n.d.	
Plasticizer (phthalates)				
DEHP	117-81-7	1907/2006 REACH/RoHS II	∑DBP, BBP,DEHP <0,1% per homologue material	
DMEP	117-82-8	1907/2006 REACH	<0,1% per homologue material	
DPP	131-18-0	1907/2006 REACH	<0,1% per homologue material	

DBP	84-74-2	1907/2006 REACH/RoHS II	ΣDBP, BBP,DEHP <0,1% per homologue material	
DiPP	605-50-5	1907/2006 REACH	<0,1% per homologue material	
PiPP	776297-69-9	1907/2006 REACH	<0,1% per homologue material	
DnHP	84-75-3	1907/2006 REACH	<0,1% per homologue material	
BBP	85-68-7	1907/2006 REACH/RoHS II	ΣDBP, BBP,DEHP <0,1% per homologue material	

Substance	CAS No	Requirement	Limit	Remarks
DIBP	84-69-5	1907/2006 REACH/RoHS II	<0,1% per homologue material	
DHNUP	68515-42-4	1907/2006 REACH	<0,1% per homologue material	
DIHP	71888-89-6	1907/2006 REACH	<0,1% per homologue material	
1,2 Benzendicarboxylic acid, dipentyester, branched and linear	68515-50-4	1907/2006 REACH	<0,1% per homologue material	
DINP	28553-12-0	1907/2006 REACH	ΣDINP,DIDP,DNO P <0,1% per homologue material	
DIDP	26761-40-0	1907/2006 REACH	ΣDINP,DIDP,DNO P <0,1% per homologue material	
DNOP	117-84-0	1907/2006 REACH	ΣDINP,DIDP,DNO P <0,1% per homologue material	
DPHP	53306-54-0	LGA tested Toys	<0,1% per homologue material	Criteria catalogue of LGA for toys
DCHP	84-61-7		<0,1 % per homologue material	
Di-C6-C10-Alkylphthalate ≥ 3% Dihexylphthalate	68515-51-5 68648-93-1		<0,1 % per homologue material	

Chlorinated organic carriers		§30 LFGB	10mg /kg	
SCCP Short-chain chlorinated paraffins (C10 to C13)	85535-84-8	1907/2006 REACH 519/2012 (EU) 2015/2030 (EU)	0,1%	0,1% per homologue material
Alkylphenoethoxylates		2003/53/EC 1907/2006 REACH		
Nonylphenol ethoxylates	9016-45-9 26027-38-3 68412-54-4 127087-87-0 37205-87-1		0,01%	
Nonylphenol			0,001%	
Octylphenol ethoxylates	9002-93-1 9036-19-5 68987-90-6		0,1%	
Octylphenol			0,01%	
PFOS Perfluorooctane sulfonate	1763-23-1	2006/122/EC	0,1% 1µg/m2 textile	

Substance	CAS No	Requireent	Limit	Remarks
<b>ECHA Candidate list</b> <b>SVHC update version refer to:</b> <a href="https://echa.europa.eu/candidate-list-table">https://echa.europa.eu/candidate-list-table</a>		1907/2006 REACH ECLI:EU:C:2015:576	0,1% per article	0,1% per homologue material
Dimethylfumarat Fake leather, biocide	624-49-7	2009/251/EG	0,1mg/kg	
Dimethylformamide, Synthetic leather, textile	68-12-2	1907/2006 REACH	< 30mg/kg	All material

Formaldehyde (Textile, Leather)	50-00-0	BGVO	<150mg/kg adult, without skin contact <50mg/kg adult with skin contact <16mg/kg children younger 36m	
Formaldehyde (wood)	50-00-0	76/769/EEC	0,1 ml/m3	
Formamid	75-12-7		Without skin contact < 200mg/kg With skin contact < 30mg/kg	
Cobalt 60 activity Stainless steel with food contact	7440-48-4		500µBq/g	Only for food contact
1,3- propanesultone	1120-71-4	1907/2006 REACH	0,1%	0,1% per electrolyte fluid of lithium ion batteries

## PAH

PAH		GS mark AfPS GS 2014:01PAK (18 PAH) Mandatory from 01.07.2015	GS Carcino- genic PAH (10)	GS Non-carcino- genic PAH (7)	REACH 1907/2006 EU PAK (12)
Naphthalene	91-20-3	x			
Acenaphthalene	83-32-9	x		x	
Fluorene	86-73-7	x		x	
Phenanthrene	85-01-8	x		x	x
Anthracene	120-1 2-7	x		x	
Fluoranthene	206-44-0	x		x	x
Pyrene	129-00-0	x		x	x
Acenaphthylene	208-96-8	x		x	
Chrysene	218-01-9	x	x		x
Indeno(1,2,3-cd)pyrene	193-39-5	x	x		
Benzo(b)fluoranthene	205-99-2	x	x		x
Benzo(k)fluoranthene	207-08-9	x	x		x
Dibenzo(a,h)anthracene	53-70-3	x	x		x
Benzo(g,h,i)perylene	191-24-2	x	x		x
Benzo(a)anthracen	56-55-3	x	x		x
Benzo(j)fluoranthene	205-82-3	x	x		x
Benzo(e)pyrene	192-97-2	x	x		x
Benzo(a)pyrene	50-32-8	x	x		x
Parameter	Category 1	Category 2	Category 3		

	Materials, intended to be put into the mouth, or materials in toys with longer-term skin contact in their intended use (longer than 30 s)	Materials, that do not fall into category 1, with foreseeable skin contact of longer than 30s (longer-term skin contact) or repeated short-term skin contact		Materials that do not fall into category 1 or 2, with foreseeable skin contact up to 30s (short-term skin contact)	
Values in mg/kg		Toys according to Directive 2009/48/EG	Other Products according to ProdSG	Toys according to Directive 2009/48/EG	Other Products according to ProdSG
Carcinogenic PAH	< 0,2	< 0,2	<0,5	<0,5	<1
Non carcinogenic PAH Sum	<1	<5	<10	<20	<50
Naphthalene	<1	<2		<10	
Sum 18 PAH	<1	<5	<10	<20	<50
<b>Odor</b>					
Odor test (Sensorics)	List of grades 1 = odorless 2 = weak odor 3= medium odor 4 = strong odor 5 = very strong odor		≤ 3 ≤ 2		
VOC – Volatile organic compounds	Only very low smell permitted				
Packaging	PVC prohibited				