Green Procurement Standard <u>Appendix</u>

- Chemical substance groups to be investigated -

Version 3.0 January 5th, 2024

Oki Electric Industry Co., Ltd.

Banned substance group for product parts

No	Chemical substances	Key Legal and Regulatory	Example of use	Threshold
1	Group Asbestos	Information ANNEX XVII of REACH	Brake lining pad,	(Banned level) *2 Intentionally Added
1	Asuesius	Regulation (EC) No 1907/2006; US TSCA; Switzerland Ordinance on the reduction of risks linked to chemical products	insulator, filler, insulating material, abrasive, pigment, paints, talc, adiabatic material	Intentionally Added
2	Azocolourants and azodyes which form certain aromatic amines *Examples of Substance: Table 2	ANNEX XVII of REACH Regulation (EC) No 1907/2006	Pigment, dye, colorants	Any rate of content greater than 30 ppm (0.003% by weight) in finished textile or leather articles
3	Cadmium/cadmium compounds	ANNEX XVII of REACH Regulation (EC) No 1907/2006; Directive 2011/65/EU; China MII Methods; Japan J-MOSS; US/CA SB-20/50/AB575	Pigment, anti-corrosion surface treatment, optical glass, stabilizer, plating materials, fluorescent, electrode, solder, electric contact	Any rate of content greater than 100 ppm (0.01% by weight) in homogeneous material
		Korean Quality Management and Safety Control of Industrial Products Act; EU Battery Regulation	NiCd batteries	Any rate of content greater than 5 ppm (0.0005% by weight) in battery
4	Hexavalent chromium compounds	Directive 2011/65/EU; China MII Methods; Japan J-MOSS; US/CA SB-20/50/AB575; ANNEX XVII of REACH Regulation (EC) No 1907/2006	Pigment, paint, ink, catalyst, plating, anti- corrosion surface treatment, dye	Any rate of content greater than 1000 ppm (0.1% by weight) in homogeneous material
5	Lead/lead compounds	Directive 2011/65/EU; ANNEX XVII of REACH Regulation (EC) No 1907/2006; China MII Methods; Japan J-MOSS; US/CA SB-20/50/AB575	Resin additives, pigment, paint, lubricant, plastic stabilizer, alloy, optical materials, X-ray shielding in CRT glass, electrical solder materials, curing agent, ferroelectrics, plating materials	Any rate of content greater than 1000 ppm (0.1% by weight) in homogeneous material
		US/CA Proposition 65 Case Law	Cables/cords with thermoset or thermoplastic coatings	Any rate of content greater than 300 ppm (0.03% by weight) for surface contact layer of cables/cords (thermoset/Thermoplastic coating).
		EU Battery Regulation; Chinese Standard GB 24427- 2009 "Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries"	Zinc carbon batteries alkaline button cells	Any rate of content greater than 40ppm (0.004% by weight) in battery
6	Mercury/mercury compounds	ANNEX XVII of REACH Regulation (EC) No 1907/2006; Directive 2011/65/EU; China MII Methods; Japan J-MOSS; US/CA SB-20/50/AB575; Canadian Environmental Protection Act Products	Fluorescent tube, electric contact, pigments, anti- corrosion, switches, high-efficiency phosphor, antibacterial treatment	1. Intentionally added 2. Any rate of content greater than 1000 ppm (0.1% by weight) in homogeneous material

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
	,	Containing Mercury Regulations (SOR/2014-254)		()
		New York Env Law §27-0719 Battery Management and Disposal; Taiwan Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries; Chinese Standard GB 24427- 2009 "Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries"; Korea Law on quality management and control of safety of industrial products Battery regulation; EU Battery Regulation	Silver-oxide button cells, alkaline batteries, zinc carbon batteries	1. Intentionally Added 2. Any rate of content greater than 1ppm (0.0001% by weight) in battery
		Canadian Environmental Protection Act Products Containing Mercury Regulations (SOR/2014-254)	Silver-oxide button cells, alkaline batteries, zinc carbon batteries	Any rate of content greater than 5 ppm (0.0005% by weight) in homogeneous material in batteries.
7	Ozone depleting substances	Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures (Japanese law), Montreal Protocol, 1990 revision of Article 611 of the Clean Air Act (US law); Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer	Refrigerant, foaming agent, extinguishant, solvent cleaner	Intentionally added
8	Polybrominated biphenyls (PBBs)	Directive 2011/65/EU; China MII Methods; Japan J-MOSS; Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Flame retardant	1. Intentionally added 2. Any rate of content greater than 1000 ppm (0.1% by weight) in homogeneous material.
9	Polybrominated diphenyl ethers (PBDEs) (including decaBDE (CAS No.1163-19-5))	Directive 2011/65/EU; China MII Methods; Japan J-MOSS; Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Flame retardant	1. Intentionally added 2. Any rate of content greater than 1000 ppm (0.1% by weight) in homogeneous material.
10	Polychlorinated biphenyls (PCBs) and specific substitutions	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; (EC) 2019/1021(POPs regulation); US TSCA	Insulation oil, lubricant oil, electrical insulation medium, electrolytic solution, plasticizers, flame retardant, dielectric, sealant	Intentionally added
11	Polychlorinated terphenyls (PCTs)	ANNEX XVII of REACH Regulation (EC) No 1907/2006	Insulation oil, lubricant oil, electrical insulation medium, electrolytic solution, plasticizers, flame retardant, coatings for electrical cable, dielectric, sealant	Any rate of content greater than 50 ppm (0.005% by weight) in homogeneous material

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
12	Polychlorinated	Japanese Act on the	Lubricant, paint,	Intentionally added
	naphthalenes (more than 1 chlorine atoms) (PCNs)	Evaluation of Chemical Substances and Regulation of	stabilizer, insulator, flame retardant	
		Their Manufacture, etc.; (EC)	Traine retardant	
		2019/1021(POPs regulation)		
13	Radioactive substances	EU-D 96/29/Euratom; Japan	Optical properties (thorium), measuring	Intentionally added
		Law for the Regulation of Nuclear Source Material,	devices, gauges,	
		Nuclear Fuel Material, And	detector	
		Reactors, 1986; Japan Law		
		Concerning Prevention from		
14	Shortchain chlorinated	Radiation Hazards; US NRC Japanese Act on the	Plasticizer for PVC,	1. Intentionally added
	paraffins (C10 - C13)	Evaluation of Chemical	flame retardant	2. Any rate of content greater
		Substances and Regulation of		than 1000ppm (0.1% by
		Their Manufacture, etc.;		weight) by survey unit
		Article 33 and 7.2 of REACH Regulation (EC) No		
		1907/2006 (2008.10.28 SVHC		
		Candidate List); Norway		
		Product Regulations FOR-		
		2004-06-01-922; Switzerland Ordinance on the reduction of		
		risks linked to chemical		
		products; (EC)		
1.5	The state of the	2019/1021(POPs regulation)	Gt-1:11	1.7
15	Tri-substituted organostannic	ANNEX XVII of REACH Regulation (EC) No	Stabilizer, antioxidant, antibacterial and	 Intentionally added Any rate of content greater
	compounds	1907/2006; Japanese Act on	antifungal agents,	than 1000ppm (0.1% by weight)
		the Evaluation of Chemical	antifoulant, antiseptic,	of tin by survey unit
		Substances and Regulation of Their Manufacture, etc.	paint, pigment	
16	Tributyl tin oxide	Japanese Act on the	Antiseptic, antifungal	1. Intentionally added
	(TBTO)	Evaluation of Chemical	agent, paint, pigment,	2. Any rate of content greater
	CAS No.56-35-9	Substances and Regulation of	antistaining,	than 1000ppm (0.1% by weight)
		Their Manufacture, etc.; Article 33 and 7.2 of REACH	refrigerant, foaming agent, extinguishant,	by survey unit
		Regulation (EC) No	solvent cleaner	
		1907/2006 (2008.10.28 SVHC		
17	Perfluorooctane sulfonic	Candidate List) (EU) 2019/1021(POPs	Film and plastic	1. Intentionally added
1,	acid and its salts	regulation); Canadian	antistatic agents	2. Any rate of content greater
	(PFOS)	Environmental Protection Act		than 1000ppm (0.1% by weight)
	(including PFOSF (CAS No. 307-35-7))	SOR/2016-252; Japanese Act on the Evaluation of Chemical		by survey unit 3. Any rate of content greater
	110. 507 55 1//	Substances and Regulation of		than 1 µg/m2 to the fabric and
		Their Manufacture, etc.		other coated material
18	Phenol, 2-(2H-benzotriazol-2-yl)-4,6-	Japanese Act on the Evaluation of Chemical	Adhesive, paint, print ink, plastic, ink ribbon,	 Intentionally added Any rate of content greater
	bis (UV-320)	Substances and Regulation of	putty, caulking or	than 1000ppm (0.1% by weight)
	CAS No.3846-71-7	Their Manufacture, etc.;	sealing filler	by survey unit
		Article 33 and 7.2 of REACH		
		Regulation (EC) No 1907/2006 (2011.12.19 SVHC		
		Candidate List)		
19	Dimethyl fumarate	ANNEX XVII of REACH	Biocide, antifungal	Any rate of content greater than
	(DMF) CAS No. 624-49-7	Regulation	treatment of electronic	0.1 ppm (0.00001% by weight)
			recliners, massage	oj sarvoj unit
	CAS No. 624-49-7	. 8	leather seats, including	by survey unit

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
			chairs	
20	Dibutyltin (DBT) compounds	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	Any rate of content greater than 1000ppm (0.1% by weight) of tin by survey unit
21	Dioctyltin (DOT) compounds	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	In textile and leather articles intended to come into contact with the skin, child care article or in two component room temperature vulcanization moulding kits (RTV-2 moulding kits) Any rate of content greater than 1000ppm (0.1% by weight) of tin by survey unit
22	Hexabromocyclododecan e (HBCDD) and all major diastereoisomers identified	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (2008.10.28 SVHC Candidate List); (EC) 2019/1021(POPs regulation)	Flame retardant	1. Intentionally added 2. Any rate of content greater than 100ppm (0.01% by weight) by survey unit
23	Bis (2-ethylhexyl) phthalate (DEHP) CAS No. 117-81-7	Directive (EU) 2015/863	Packaging materials, electrolytic solutions, cables, electrolytic capacitor sleeves, antivibration rubber, rubber feet	Any rate of content greater than 1000ppm (0.1% by weight) in homogeneous material
24	Benzyl butyl phthalate (BBP) CAS No. 85-68-7	Directive (EU) 2015/863	Adhesives	Any rate of content greater than 1000ppm (0.1% by weight) in homogeneous material
25	Dibutyl phthalate (DBP) CAS No. 84-74-2	Directive (EU) 2015/863	Cables, plugs Rubber feet, tubes	Any rate of content greater than 1000ppm (0.1% by weight) in homogeneous material
26	Diisobutyl phthalate (DIBP) CAS No. 84-69-5	Directive (EU) 2015/863	Rubber products	Any rate of content greater than 1000ppm (0.1% by weight) in homogeneous material
27	Phthalate esters Group 1 (BBP, DBP, DEHP, DIBP)	REACH Directive (EC) No 1907/2006 ANNEX XVII; US Consumer Product Safety Improvement Act	Plasticizers, dye, pigment, paint, ink, adhesive, lubricant	For plasticized material in batteries and printed matter (instructions, etc.), any rate of content greater than 1000ppm (0.1% by weight) for the 4 substances either separately and in total
28	Perfluorooctanoic acid (PFOA) and its salts as well as PFOA-related substances	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; [Norway] Regulation FOR-2004-06-01-922 relating to restrictions on the manufacture, import, export, sale and use of chemicals and other products hazardous to health and the environment; (EC) 2019/1021(POPs regulation)	Photographic coatings applied to fabrics, films, papers or printing plates, or parts and materials used in other products	1. Intentionally added 2. Any rate of content for PFOA or its salts greater than 25ppb by mass of survey unit 3. For one or combinations of multiple PFOA-related substances, at a total concentration per survey unit greater than 1000ppb (1ppm) 4. Textiles, carpets and other coated products Any rate of content exceeding 1µg/m2

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
29	Hexachlorobenzene CAS No.118-74-1	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally added
30	Aldrin CAS No.309-00-2	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally added
31	Dieldrin CAS No.60-57-1	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally added
32	Endrin CAS No.72-20-8	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally added
33	DDT CAS No.50-29-3	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally added
34	Chlordanes	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally added
35	N, N'-ditolyl-p- phenylenediamine, N-tolyl- N'-xylyl-p- phenylenediamine, or N, N'- dixylyl-p-phenylenediamine	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Rubber anti-aging agents, styrene-butadiene rubber	Intentionally added
36	2, 4, 6-tri-tert-butylphenol (2,4,6-TTBP) CAS No.732-26-3	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; US TSCA	Lubricating oil or fuel oil additives	Intentionally added
37	Toxaphene CAS No.8001-35-2	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally added
38	Mirex CAS No.2385-85-5	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides, flame retardants, resins, rubber, paints, textiles	Intentionally added
39	Kelthane or dicofol CAS No.115-32-2, 10606-46-9	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally added
40	Hexachlorobuta-1, 3- diene (HCBD) CAS No.87-68-3	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; US TSCA	Pesticides, solvents	Intentionally added
41	Benzidine and its salts	[Japan] Industrial Safety and Health Act.	Pigment Intermediates	Intentionally added
42	Biphenyl-4-ylamine and its salts	[Japan] Industrial Safety and Health Act.	Dye Intermediates	Intentionally added
43	4-nitrobiphenyl and its salts	[Japan] Industrial Safety and Health Act.	Synthetic Intermediates	Intentionally added
44	Bis(chloromethyl)ether CAS No.542-88-1	[Japan] Industrial Safety and Health Act.	Chloromethylating agents	Intentionally added

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
45	2-Naphthylamine and its salts	[Japan] Industrial Safety and Health Act.	Dye Intermediates	Intentionally added
46	Rubber glue containing benzene (5% or more) CAS No.71-43-2 (benzene)	[Japan] Industrial Safety and Health Act.	Rubber glue	Intentionally added
47 *1	Cyanides (excluding acrylonitrile)	[Japan] Water Pollution Prevention Act.	Rubber, Resins, Textiles, Agrochemicals, Pharmaceuticals	Intentionally added
48 *1	Organophosphorus compounds (Parathion, Methyl parathion, Demeton-O-methyl, EPN) CAS No.56-38-2, 298-00-0, 8022-00-2, 2104-64-5	[Japan] Water Pollution Prevention Act.	Pesticides	Intentionally added
49	Alkylmercury compounds	[Japan] Water Pollution Prevention Act.	Agrochemicals	Intentionally added
50 *1	Simazine CAS No.122-34-9	[Japan] Water Pollution Prevention Act.	Agrochemicals	Intentionally added
51	1,1,2-Trichloroethene CAS No.79-01-6	[Japan] Water Pollution Prevention Act.	Cleaning agents, solvents	Intentionally added
52 *1	Perchloroethene CAS No.127-18-4	[Japan] Water Pollution Prevention Act.	Cleaning agents, solvents	Intentionally added
53 *1	Dioxins	[Japan] Act on Special Measures against Dioxins	Reaction by-products	Intentionally added
54	Cobalt dichloride (CoCl2) CAS No.7646-79-9	CLP regulation (EC) No1272/2008	Raw materials for catalysts, paints, pigments, and ink drying agents; Plating agents, pharmaceuticals (patch test patches), poison gas absorbents	Prohibited at any concentration
55 *1	REACH ANNEX 17 (Excluding REACH ANNEX 17 substance groups individually designated in the substance groups in this table.) *Reference information: Table 3	ANNEX XVII of REACH Regulation (EC) No 1907/2006	-	Compliant with REACH ANNEX 17 Except that the effective date shall be one year prior to the effective date stated in the Official Gazette.
56	Diisononyl phthalate (DINP) CAS No.28553-12-0, 68515-48-0	Proposition 65 of California; ANNEX XVII of REACH Regulation (EC) No 1907/2006	Plasticizer	Intentionally added
57 *1	Polycyclic-aromatic hydrocarbons (PAHs) *Substance Details: Table 4.	[Germany] AfPS GS2019:01PAK; ANNEX XVII of REACH Regulation (EC) No 1907/2006; China Environmental Labelling	Rubber or plastic (e.g., mice, control panels, headphones, tools, wristbands, etc.)	Rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity Any rate of content greater than the values shown in Table 4 in homogeneous material.
58	Pentachlorobenzene CAS No.608-93-5	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Agrochemicals	Intentionally added

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
59	Alpha- hexachlorocyclohexane CAS No.319-84-6	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Reaction by-products	Intentionally added
60	Beta- hexachlorocyclohexane CAS No.319-85-7	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Reaction by-products	Intentionally added
61	Gunma- hexachlorocyclohexane or Lindane CAS No.58-89-9	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally added
62	Chlordecone CAS No.143-50-0	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally added
63	Endosulfan or Benzoepin CAS No.115-29-7, 959- 98-8, 33213-65-9	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Agrochemicals	Intentionally added
64	Pentachlorophenol (PCP) or its salts or esters	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Agrochemicals	Intentionally added
65 *1	Yellow phosphorus matches CAS No.12185-10-3	[Japan] Industrial Safety and Health Act.	Matches	Intentionally added
66	Isopropylated phosphate (3:1) (PIP(3:1)) CAS No.68937-41-7	U.S. TSCA	Adhesive, plasticizers, flame retardant, cotings	Intentionally added
67 *1	Perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds	Stockholm Convention on POPs; Switzerland Ordinance on the reduction of risks linked to chemical products; (EC) 2019/1021(POPs regulation)	Plating materials, coatings, firefighting foam, abrasives and cleaners, textiles	1. Intentionally Added 2. Any rate of content greater than 25ppb of PFHxS includiong its salts in the packaging part 3. Any rate of content greater than 1ppm of one or a combination of PFHxS-related compounds, in the packaging part
68	Dechlorane Plus (DP) CAS No.13560-89-9, 135821-03-3, 135821- 74-8	Stockholm Convention on POPs	Flame retardant, adhesive	Intentionally added
69	UV-328 CAS No.25973-55-1	Stockholm Convention on POPs	UV absorber	Intentionally added

^{*1)} Reference: Chemical substances that are not listed in whole or in part in the chemSHERPA Substance List ver.2.08.00
*2) If there is more than one threshold (banned level), all of them must be satisfied.

Reportable substance group for product parts

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (reporting level) *2
1	Beryllium oxide (BeO)	DIGITALEUROPE/CECED/Ae A/EERA guidance	Ceramics	Any rate of content greater than 1000ppm (0.1% by weight) by
	(===)			survey unit
2	Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Joint JEDEC/ECA JS-709A Standard Defining "Low Halogen" Electronics	flame retardant for housing, connectors, package molding sealing	Any rate of bromine content greater than 1000ppm (0.1% by weight) in plastic material (other than multilayered printed circuit

				board)
		IPC-4101 and IEC61249-2-21	Multilayered printed circuit board	Any rate of content greater than 900ppm (0.09% by weight) in the printed circuit board (excluding parts)
3	Chlorinated flame retardants	Joint JEDEC/ECA JS-709A Standard Defining "Low Halogen" Electronics	flame retardant for housing, connectors, package molding sealing	Any rate of chlorine content greater than 1000ppm (0.1% by weight) in plastic material (other than multilayered printed circuit board)
		IPC-4101 and IEC 61249-2-21	flame retardant	Any rate of chlorine content greater than 900ppm (0.09% by weight) in the multilayered boards (except components)
4	Perchlorates	California Assembly Bill No. 826 - Perchlorate Contamination Prevention Act; implemented July 1, 2006	Coin cell batteries	Any rate of content greater than 0.006ppm (0.000006% by weight) by survey unit
5	Diisodecyl phthalate (DIDP)	Proposition 65 of California	Plasticizer, dye, pigment, paint, ink, adhesive	Intentionally added
6	Di-n-hexyl phthalate (DnHP)	Proposition 65 of California Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (SVHC Candidate List)	Plasticizer	Intentionally added
7 *1	Polyvinyl chloride (PVC) & PVC Copolymers	JS709	Insulator, chemical resistance, OHP film, sheath material	Any rate of chlorine content greater than 1000ppm (0.1% by weight) in plastic material (other than multilayered printed circuit board laminate)
8	Formaldehyde	US/CA CARB Rule; US Federal Law 111-199/TSCA Section 601	Stereo cabinets, kiosks, composite wood (plywood, particle board, medium density fiberboard) products or components	Intentionally added
		Austria - BGB I 1990/194 Formaldehydverordnung, §2, 12/2/1990; Lithuanian Hygiene Norm HN 962000 (Hygiene standards and regulations)	Textiles	Any rate of content greater than 75ppm (0.0075% by weight) by survey unit
9	Fluorinated greenhouse gases (PFC, SF6, HFC)	EU Regulation No. 842/2006; Austrian ordinance of the Federal Minister for Agriculture, Forestry, Environment and Water Management on bans and restrictions for partly fluorinated and fully fluorinated hydrocarbons and sulfur hexafluoride	Refrigerants, spraying material, extinguishing agents, cleaning agents, insulating media, caustic gas	Intentionally added
10	Medium-chain chlorinated paraffins (MCCP) (carbon chain lengths in the range C14-17 and chlorination levels at or exceeding 45 per cent chlorine by weight)	Stockholm Convention on POPs (candidate for regulation)	Flame-retardant resin raw materials	Intentionally added *will be made a banned substance after the POPs Convention decides to eliminate it.
11 *1	Long-chain perfluorocarboxylic	Stockholm Convention on POPs (candidate for regulation)	Fluoropolymer processing aid, surfactant	Intentionally added *will be made a banned substance

	acids (PFCAs) with			after the POPs Convention
	carbon chain			decides to eliminate it.
	lengths from 9 to			
	21, their salts and			
	related compounds			
12	Per- and	REACH Regulation (candidate	Flame retardants,	Intentionally added
	polyfluoroalkyl	for regulation); U.S. state laws	lubricants, insulating	
	substances (PFAS)	_	materials, water and oil	
			repellents, stain	
			repellents, adhesives	

^{*1)} Reference: Chemical substances that are not listed in whole or in part in the chemSHERPA Substance List ver.2.08.00

Controlled substances for product parts and packaging parts

Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (reporting level)
SVHC (Substances of Very High	REACH Regulation (EC)	Additives of Rubber, PVC, and	Any rate of content greater
Concern) under REACH regulation	No.1907/2006	plastics, flame retardant,	than 1000ppm (0.1% by
Its object substances are described in		pesticides, antiseptic/desiccant	weight) by article
Form-C.			
*1			

^{*1)} SVHC of REACH Regulation to be reported to our suppliers are as shown in Form-C. We will add or revise every time European Chemicals Agency (ECHA) makes an announcement, however, for some cases, we may ask you to report before the revision of Form-C.

Banned substance group of Packaging Parts for shipped products

Packaging components are the follows

- Packaging components shown in Table 1 "Examples of packaging components"

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
1	Arsenic Compounds	ANNEX XVII of REACH Regulation (EC) No 1907/2006	Wood preservative	Intentionally added.
2	Asbestos	ANNEX XVII of REACH Regulation (EC) No 1907/2006; US TSCA; Swiss Ordinance on Reduction of Risk from Chemical Products	Insulator, filler, abrasive, pigment, paint, talc,	Intentionally added.
3	Azocolourants and azodyes which form certain aromatic amines *Examples of Substance: Table 2	ANNEX XVII of REACH Regulation (EC) No 1907/2006	Textile, pigment, dye, colorants	Any rate of content greater than 30ppm (0.003% by weight) in finished textile/leather product.
4	Cobalt dichloride (CoCl2) CAS No.7646-79-9	CLP regulation (EC) No.1272/2008	Humidity indicator card (HIC), Water indicator in silica gel	Prohibited at any concentration.
5	Dibutyltin (DBT) compounds	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	Plasticizers, paper coatings, inks, stabilizer for PVC, curing catalyst for silicone resin and urethane resin	Any rate of content of tin greater than 1000ppm (0.1% by weight) in the packaging part

^{*2)} If there is more than one threshold (banned level), all of them must be satisfied.

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
6	Dioctyltin (DOT) compounds	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	Textiles	Any rate of content of tin greater than 1000ppm (0.1% by weight) in the packaging part
7	Dimethyl fumarate (DMF) CAS No. 624-49-7	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	Desiccating agent, antifungal agent	Any rate of content greater than 0.1ppm (0.00001%by weight) in the packaging part
8	Specific Heavy Metals Cd/Cd Compounds; Pb/Pb Compounds; Hg/Hg Compounds; Hexavalent chromium Compounds	EU 94/62/EC Directive; US State Toxics in Packaging (TIP)	Pigment, paint, stabilizer for PVC	1. Intentionally added. 2. Any rate of content of the sum of Cd, Hg, Pb & Hexavalent chromium is greater than 100ppm (0.01% by weight) in each packaging part. Inks and paints for printing and marks on packaging part are treated as packaging part respectively.
9	Methyl bromide CAS No.74-83-9	ISPM-15	Wood pallets	Intentionally added.
10	Phenol,2-(2H-benzotriazol-2- yl)-4,6-bis(1,1-dimethylethyl CAS No.3846-71-7	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 2011.12.19)	Adhesives, paints, printing inks, plastics, inked ribbons, putty, caulking or sealing fillers	1. Intentionally added 2. Any rate of content greater than 1000ppm (0.1% by weight) in the packaging parts
11	Polychlorinated biphenyls (PCBs) and specific substitutes	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; (EU) 2019/1021(POPs regulation); U.S. TSCA	Plasticizers, adhesives, putty, sealing fillers, paints, printing ink, copying paper	Intentionally added.
12	Polychlorinated naphthalenes (more than 1chlorine atoms)	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; (EU) 2019/1021(POPs regulation)	Antiseptics for wood, insecticide, antifungal agents, paints	Intentionally added.
13	Polychlorinated terphenyls (PCTs)	ANNEX XVII of REACH Regulation (EC) No 1907/2006	Plasticizers, adhesives, putty, sealing fillers, paints, printing ink, copying paper	Any rate of content greater than 50ppm (0.005% by weight) in the packaging part

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
14	Shortchain chlorinated paraffins (C10 - C13)	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008); Norway Product Regulations FOR-2004- 06-01-922; Swiss Ordinance on Reduction of Risk from Chemical Products; (EU) 2019/1021(POPs regulation)	Plasticizer for PVC, flame retardant	Intentionally added. Any rate of content greater than 1000ppm (0.1% by weight) in the packaging part
15	Tri-substituted Organostannic compounds	ANNEX XVII of REACH Regulation (EC) No 1907/2006; Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; Norwegian product regulation	Antibacterial and antifungal agents, paint, pigment	1. Intentionally added. 2. Any rate of content of tin greater than 1000ppm (0.1% by weight) in the packaging part
16	Tributyl tin oxide (TBTO) CAS No.56-35-9	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008); Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	1. Intentionally added. 2. Any rate of content greater than 1000ppm (0.1% by weight) in the packaging part
17	Phthalate esters Group 1 (BBP, DBP, DEHP, DIBP)	ANNEX XVII of REACH Regulation (EC) No 1907/2006	Plasticizers, dye, pigment, paint, ink, adhesive, lubricant	For plasticized material in packaging materials, any rate of content greater than 1000ppm (0.1% by weight) for the 4 substances either separately and in total
18	Hexabromocyclododecan e (HBCDD) and all major diastereoisomers identified	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (2008.10.28 SVHC Candidate List); (EC) 2019/1021(POPs regulation)	Flame retardant	1. Intentionally added. 2. Any rate of content greater than 100ppm (0.01% by weight) in the packaging part
19	Perfluorooctanoic acid (PFOA) and its salts as well as PFOA-related substances	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; [Norway] Regulation FOR-2004-06-01-922 relating to restrictions on the manufacture, import, export, sale and use of chemicals and other products hazardous to health and the environment; (EC) 2019/1021(POPs regulation)	Photographic coatings applied to fabrics, films, papers or printing plates, or parts and materials used in other products	1. Intentionally added 2. Any rate of content greater than 25ppb of PFOA includiong its salts in the packaging part 3. Any rate of content greater than 1000ppb(1ppm) of one or a combination of PFOA-related compounds, in the packaging part 4. Textiles, carpets and other coated products Any rate of content exceeding 1µg/m2

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
20	Hexachlorobenzene CAS No.118-74-1	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally Added
21	Aldrin CAS No.309-00-2	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally Added
22	Dieldrin CAS No.60-57-1	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally Added
23	Endrin CAS No.72-20-8	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally Added
24	DDT CAS No.50-29-3	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally Added
25	Chlordanes	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally Added
26	N, N'-ditolyl-p- phenylenediamine, N- tolyl-N'-xylyl-p- phenylenediamine, or N, N'-dixylyl-p- phenylenediamine	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Rubber anti-aging agents, styrene-butadiene rubber	Intentionally Added
27	2, 4, 6-tri-tert- butylphenol (2,4,6- TTBP) CAS No.732-26-3	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; US TSCA	Lubricating oil or fuel oil additives	Intentionally Added
28	Toxaphene CAS No.8001-35-2	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally Added
29	Mirex CAS No.2385-85-5	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides, flame retardants, resins, rubber, paints, textiles	Intentionally Added
30	Kelthane or dicofol CAS No.115-32-2, 10606-46-9	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally Added
31	hexachlorobuta-1, 3- diene (HCBD) CAS No.87-68-3	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; US TSCA	Pesticides, solvents	Intentionally Added
32	Benzidine and its salts	[Japan] Industrial Safety and Health Act.	Pigment Intermediates	Intentionally Added
33	Biphenyl-4-ylamine and its salts	[Japan] Industrial Safety and Health Act.	Dye Intermediates	Intentionally Added
34	4-nitrobiphenyl and its salts	[Japan] Industrial Safety and Health Act.	Synthetic Intermediates	Intentionally Added

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
35	Bis(chloromethyl)ether CAS No.542-88-1	[Japan] Industrial Safety and Health Act.	Chloromethylating Intentionally Added agents	
36	2-Naphthylamine and its salts	[Japan] Industrial Safety and Health Act.		
37	Rubber glue containing benzene (5% or more) CAS No.71-43-2 (benzene)	[Japan] Industrial Safety and Health Act.	Rubber glue	Intentionally Added
38 *1	Cyanides (excluding acrylonitrile)	[Japan] Water Pollution Prevention Act.	Rubber, Resins, Textiles, Agrochemicals, Pharmaceuticals	Intentionally Added
39 *1	Organophosphorus compounds (Parathion, Methyl parathion, Demeton-O-methyl, EPN) CAS No.56-38-2, 298-00-0, 8022-00-2, 2104-64-5	[Japan] Water Pollution Prevention Act.	Pesticides	Intentionally Added
40	Alkylmercury compounds	[Japan] Water Pollution Prevention Act.	Agrochemicals	Intentionally Added
41 *1	Simazine CAS No.122-34-9	[Japan] Water Pollution Prevention Act.	Agrochemicals	Intentionally Added
42	1,1,2-Trichloroethene CAS No.79-01-6	[Japan] Water Pollution Prevention Act.	Cleaning agents, solvents	Intentionally Added
43 *1	Perchloroethene CAS No.127-18-4	[Japan] Water Pollution Prevention Act.	Cleaning agents, solvents	Intentionally Added
44 *1	Dioxins	[Japan] Act on Special Measures against Dioxins	Reaction by-products	Intentionally Added
45	Pentachlorobenzene CAS No.608-93-5	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Agrochemicals	Intentionally Added
46	Alpha- hexachlorocyclohexane CAS No.319-84-6	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Reaction by-products	Intentionally Added
47	Beta- hexachlorocyclohexane CAS No.319-85-7	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Reaction by-products	Intentionally Added
48	Gunma- hexachlorocyclohexane or Lindane CAS No.58-89-9	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally Added
49	Chlordecone CAS No.143-50-0	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Pesticides	Intentionally Added
50	Endosulfan or Benzoepin CAS No.115-29-7, 959- 98-8, 33213-65-9	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Agrochemicals	Intentionally Added
51	Pentachlorophenol (PCP) or its salts or esters	Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Agrochemicals	Intentionally Added
52 *1	Yellow phosphorus matches CAS No.12185-10-3	[Japan] Industrial Safety and Health Act.	Matches	Intentionally Added

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level) *2
53 *1	REACH ANNEX 17 (Excluding REACH ANNEX 17 substance groups individually designated in the substance groups in this table.) *Reference information: Table 3	ANNEX XVII of REACH Regulation (EC) No 1907/2006	-	Compliant with REACH ANNEX 17 Except that the effective date shall be one year prior to the effective date stated in the Official Gazette.
54	Isopropylated phosphate (3:1) (PIP(3:1)) CAS No.68937-41-7	U.S. TSCA	Adhesive, plasticizers, flame retardant, cotings	Intentionally added
55 *1	Perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds	Stockholm Convention on POPs; (EC) 2019/1021(POPs regulation); Switzerland Ordinance on the reduction of risks linked to chemical products	Plating materials, coatings, firefighting foam, abrasives and cleaners, textiles	1. Intentionally Added 2. Any rate of content greater than 25ppb of PFHxS includiong its salts in the packaging part 3. Any rate of content greater than 1ppm of one or a combination of PFHxS-related compounds, in the packaging part
56	Dechlorane Plus (DP) CAS No.13560-89-9, 135821-03-3, 135821- 74-8	Stockholm Convention on POPs	Flame retardant, adhesive	Intentionally added
57	UV-328 CAS No.25973-55-1	Stockholm Convention on POPs	UV absorber	Intentionally added

^{*1)} Reference: Chemical substances that are not listed in whole or in part in the chemSHERPA Substance List ver.2.08.00

Product parts packaging materials banned substance group

Substances that are deemed banned substances for packaging materials used for the protection and handling of product parts procured by the OKI Group, after taking into account transferability (the property of a substance being transferred through direct contact) to product parts.

Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (Banned level))
Bis (2-ethylhexyl) phthalate (DEHP) CAS No. 117-81-7	, ,	Plasticizers, Sheet, Film, Rubber products	Any rate of content greater than 1000ppm (0.1% by weight) in the packaging part
Benzyl butyl phthalate (BBP) CAS No. 85-68-7	Directive (EU) 2015/863	*	Any rate of content greater than 1000ppm (0.1% by weight) in the packaging part
Dibutyl phthalate (DBP) CAS No. 84-74-2	Directive (EU) 2015/863	**************************************	Any rate of content greater than 1000ppm (0.1% by weight) in the packaging part
Diisobutyl phthalate (DIBP) CAS No. 84-69-5	Directive (EU) 2015/863		Any rate of content greater than 1000ppm (0.1% by weight) in the packaging part

Group of reportable substances for packaging parts

No	Chemical substances Group	Key Legal and Regulatory Information	Example of use	Threshold (reporting level)
1	F 11.1. 1.	Austria - BGB I 1990/194	Textiles	Any rate of content greater
1	Formaldehyde	Formaldehydverordnung, §2,		than 75ppm (0.0075% by
		12/2/1990; Lithuanian Hygiene w		weight) in finished textile
		Norm HN 962000		item for the packaging part
2	Polyvinyl chloride (PVC)	IEEE1680 (EPEAT Electronic	Insulator, transparency,	Any rate of content greater
	*1	Product Environmental Assessment	sheath material, heat	than 1000ppm (0.1% by
		Tool); ECMA-370, 8.2.1; Blue	Resistant labels, clam-	weight) in the packaging part

^{*2)} If there is more than one threshold (banned level), all of them must be satisfied.

		Angel; Nordic Swan	shell packs	
				Intentionally added *will be made a banned substance after the POPs Convention decides to eliminate it.
	Long-chain perfluorocarboxylic acids (PFCAs) with carbon chain lengths from 9 to 21, their salts and related compounds	_	Fluoropolymer processing aid, surfactant	Intentionally added *will be made a banned substance after the POPs Convention decides to eliminate it.
5	Per- and polyfluoroalkyl	REACH Regulation (candidate for regulation); U.S. state laws	Flame retardants, lubricants, insulating materials, water and oil repellents, stain repellents, adhesives	Intentionally added

^{*1)} Reference: Chemical substances that are not listed in whole or in part in the chemSHERPA Substance List ver.2.08.00

Table 1. Examples of Packaging Parts

The examples of packaging parts are shown. In addition, shipping cartons are also included.

No	General Name	Example of Application
1	Bag	Polyethylene, paper or non-woven bags, Antistatic, dissipative or metalized shielding bags, Open top and reclosable/resealable bags
2	Box	Wooden, plastic, metal or corrugated containers
3	Carton	Folding cartons made from paperboard
4	Blister pack/clam shell	Sales packaging for small electronic products made of cardboard and transparent plastic or two hinged halves of plastic shells
5	Chips	Void fill and loose fill chips made of polyethylene, expanded polystyrene or biodegradable
6	Cushion	Air cushion pads, foam edges or corners, molded expanded polystyrene
7	Frame	Wooden frames
8	Tape/Adhesive tape	Adhesive tape to seal e.g. cartons or bags, tape to protect and secure movable sections, printed tape (providing e.g. safety advices)
9	Envelope & Wallet	Envelopes for certificate, document enclose wallets
10	Paints and inks to be used on packaging	Prints and marks for packaging parts.
11	Film	Sealing for cartridges, Protective films on LCD panel surfaces
12	Drying agent	Silica gel
13	Humidity Indicator Card	Maximum humidity indicator
14	Fasteners	Loop fasteners, velcro connectors
15	Label	Barcode labels, RFID (Radio Frequency Identification) labels, Caution labels (which are directly placed on products, and labels to be discarded at the use of products are included, but caution labels placed at the use of products are not included. E.g. "Fragile" sticker for transportation)
16	Tray	Thermoform tray
17	Tie	Cable ties or twist ties
18	Tube/Sleeve	Semiconductormagazine stick, reticular sleeve
19	Slip sheet	Slip sheets of plastic, heavy laminated paperboard, or corrugated fiberboard
20	Metal parts for packaging parts	Staple, nails, fasteners, metal brackets
21	Support tools for packaging parts	Joints, partition/spacers, grips
22	Pallet/Jacket	Wooden, presswood, plastic, CD jacket
23	Reel	Semiconductor reel
24	Strap/Belt	Plastic, textile and metal straps or belts

Table 2. Azocolourants and Azodyes

*Not all substances are listed.

	_	*Not all substances are listed.
Example of Substance	Chemical formula	CAS No.
4-Aminoazobenzene	$C_{12}H_{11}N_3$	60-09-3
2-Methoxyaniline; o-anisidine	C ₇ H ₉ NO	90-04-0
2-Naphthylamine; beta-naphthylamine	C ₁₀ H ₉ N	91-59-8
3,3'-Dichlorobenzidine; 3,3'-dichlorobiphenyl-4,4'-ylenediamine	$C_{12}H_{10}Cl_2O_2$	91-94-1
4-Aminobiphenyl; xenylamine; Biphenyl-4-ylamine	$C_{12}H_{11}N$	92-67-1
Benzidine; 4,4'-diaminobiphenyl; biphenyl-4,4'-ylenediamine	$C_{12}H_{12}N_2$	92-87-5
o-Toluidine; 2-aminotoluene	C ₇ H ₉ N	95-53-4
4-Chloro-o-toluidine	C ₇ H ₈ ClN	95-69-2
4-Methyl-m-phenylenediamine; 2,4-Toluenediamine	$C_{14}H_{16}N_2O_2$	95-80-7
4-o-Tolylazo-o-toluidine; 4-amino-2',3-dimethylazobenzene; fast garnet GBC base; AAT; o-aminoazotoluene	$C_7H_{10}N_2$	97-56-3
5-nitro-o-toluidine	$C_7H_8N_2O_2$	99-55-8
2,2'-Dichloro-4,4'-methylenedianiline; 4,4'-Methylene bis(2-chloroaniline)	$C_{13}H_{12}Cl_2N_2$	101-14-4
4,4'-Diaminodiphenylmethane; 4,4'-methylenedianiline	$C_{13}H_{14}N_2$	101-77-9
4,4'-Oxydianiline; p-Aminophenyl ether	$C_{12}H_{12}N_2O$	101-80-4
4-Chloraniline	C ₆ H ₆ ClN	106-47-8
3,3'-Dimethoxybenzidine; o-dianisidine	$C_{14}H_{16}N_2O_2$	119-90-4
3,3'-Dimethylbenzidine; o-tolidine; 4,4'-bi-o-toluidine	$C_{14}H_{16}N_2$	119-93-7
6-Methoxy-m-toluidine; p-cresidine	C ₈ H ₁₁ NO	120-71-8
2,4,5-Trimethylaniline	C ₉ H ₁₃ N	137-17-7
4,4'-Thiodianiline	$C_{12}H_{12}N_2S$	139-65-1
2,4-Diaminoanisole; 4-methoxy-m-phenylenediamine	$C_7H_{10}N_2O$	615-05-4
4,4'-Methylenedi-o-toluidine	$C_{15}H_{18}N_2$	838-88-0

Table 3. (EU) REACH ANNEX 17

Refference URL: https://echa.europa.eu/substances-restricted-under-reach

 $\underline{https://eur-lex.europa.eu/eli/reg/2006/1907/2023-12-01}$

*Please confirm the latest information in the original document and treat this table as reference information.

	nal document and treat this table as reference information.
Column 1	Column 2
Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
Polychlorinated terphenyls (PCTs)	Shall not be placed on the market, or used: — as substances, — in mixtures, including waste oils, or in equipment, in concentrations greater than 50 mg/kg (0,005 % by weight).
Chloroethene (vinyl chloride)	Shall not be used as propellant in aerosols for any use.
CAS No 75-01-4	Aerosols dispensers containing the substance as propellant shall not be
EC No 200-831-0	placed on the market.
▼ M6	
M3 3. Liquid substances or mixtures ►M3 — ◄ fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1. ◄	— ornamental articles interlace to produce light of colour effects by

4. Tris (2,3 dibromopropyl) phosphate A. Tris (2,3 dibromopropyl) phosphate CAS No 126-72-7 1. Shall not be used in textile articles, such as garments, undergarments and linen, intended to come into contact with the skin. 2. Articles not complying with paragraph 1 shall not be placed on the market. 5. Benzene 1. Shall not be used in toys or parts of toys where the concentration of benzene in the free state is greater than 5 mg/kg (0,0005 %) of the weight of the toy or part of toy. 2. Toys and parts of toys not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market, or used. — as a substance, — as a constituent of other substances, or in mixtures, in concentrations equal to, or greater than 0,1 % by weight. 4. However, paragraph 3 shall not apply to: (a) motor fuels which are covered by Directive 98/70/EC; (b) substances and mixtures for use in industrial processes not allowing for the emission of benzene in quantities in excess of those laid down in existing legislation; M33 (c) natural gas placed on the market for use by consumers, provided that the concentration of benzene remains below 0,1% volume/volume. 6. Asbestos fibres (a) Crocidolite CAS No 1201-28-4 (b) Amosite CAS No 12172-73-5 (c) Anthophylitie CAS No 12172-73-5 (d) Actinolite CAS No 77536-66-4 EXAMPTION The manufacture of such diaphragms, provided that such use in stallations of such diaphragms, provided that such use is carried out in compliance with the conditions of a permit set in accordance with the version of this paragraph in force until that date, the first subparagraph shall not apply until 1 July 2025 to the use in those installations of such diaphragms, provided that such use carried out in compliance with the conditions of a permit set in accordance with the version of this paragraph in force until that date, the first subparagraph phall not apply until 1 force until that date, the first subparagraph phall not apply until 1 accordance with Directive 2010/75/EU of the Eu		2010, 'Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage'; (b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter fluid may lead to life threatening lung damage'; (c) lamps oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010. ◀ ► M61 ◀ ► M61 ◀
and linen, intended to come into contact with the skin. 2. Articles not complying with paragraph 1 shall not be placed on the market. 5. Benzene 1. Shall not be used in toys or parts of toys where the concentration of benzene in the free state is greater than 5 mg/kg (0,0005 %) of the weight of the toy or part of toy. 2. Toys and parts of toys not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market, or used, — as a substance, — as a substance, — as a substance, — as a constituent of other substances, or in mixtures, in concentrations equal to, or greater than 0,1 % by weight. 4. However, paragraph 3 shall not apply to: (a) motor fuels which are covered by Directive 98/70/EC; (b) substances and mixtures for use in industrial processes not allowing for the emission of benzene in quantities in excess of those laid down in existing legislation; *M33 (c) natural gas placed on the market for use by consumers, provided that the concentration of benzene remains below 0,1 % volume/volume. * 6. Asbestos fibres 4. M37 1. The manufacture, placing on the market and use of these fibres and of articles and mixtures containing these fibr	▼M5	
2. Articles not complying with paragraph 1 shall not be placed on the market. 5. Benzene 1. Shall not be used in toys or parts of toys where the concentration of benzene in the free state is greater than 5 mg/kg (0,0005 %) of the weight of the toy or part of toy. 2. Toys and parts of toys not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market, or used, — as a substance, — as a constituent of other substances, or in mixtures, in concentrations equal to, or greater than 0,1 % by weight. 4. However, paragraph 3 shall not apply to: (a) motor fuels which are covered by Directive 98/70/EC; (b) substances and mixtures for use in industrial processes not allowing for the emission of benzene in quantities in excess of those laid down in existing legislation; ►M33 (c) natural gas placed on the market for use by consumers, provided that the concentration of benzene remains below 0,1 % volume/volume. ◄ 6. Asbestos fibres 4. M37 1. The manufacture, placing on the market and use of these fibres and of articles and mixtures containing these fibres added intentionally is prohibited. (b) Amosite CAS No 12012-28-4 (c) Anthophylitie CAS No 12172-73-5 (c) Anthophylitie CAS No 77536-67-5 (d) Actinolite CAS No 77536-66-4	4. Tris (2,3 dibromopropyl) phosphate	1. Shall not be used in textile articles, such as garments, undergarments
Table 1. Shall not be used in toys or parts of toys where the concentration of benzene in the free state is greater than 5 mg/kg (0,0005 %) of the weight of the toy or part of toy. 2. Toys and parts of toys not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market, or used, — as a substance, — as a constituent of other substances, or in mixtures, in concentrations equal to, or greater than 0,1 % by weight. 4. However, paragraph 3 shall not apply to: (a) motor fuels which are covered by Directive 98/70/EC; (b) substances and mixtures for use in industrial processes not allowing for the emission of benzene in quantities in excess of those laid down in existing legislation; ►M33 (c) natural gas placed on the market for use by consumers, provided that the concentration of benzene remains below 0,1 % volume/volume. ◄ 6. Asbestos fibres 4. M37 (a) Crocidolite CAS No 12001-28-4 (b) Amosite CAS No 12172-73-5 (c) Anthophylite CAS No 12172-73-5 (d) Anthophylite CAS No 77536-67-5 (d) Actinolite CAS No 77536-66-4	CAS No 126-72-7	and linen, intended to come into contact with the skin.
Denzene in the free state is greater than 5 mg/kg (0,0005 %) of the weight of the toy or part of toy. 2. Toys and parts of toys not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market, or used, — as a substance, — as a constituent of other substances, or in mixtures, in concentrations equal to, or greater than 0,1 % by weight. 4. However, paragraph 3 shall not apply to: (a) motor fuels which are covered by Directive 98/70/EC; (b) substances and mixtures for use in industrial processes not allowing for the emission of benzene in quantities in excess of those laid down in existing legislation; ►M33 (c) natural gas placed on the market for use by consumers, provided that the concentration of benzene remains below 0,1 % volume/volume. ◄ 6. Asbestos fibres (a) Crocidolite CAS No 12001-28-4 (b) Amosite CAS No 12172-73-5 (c) Anthophyllite CAS No 12172-73-5 (d) Actinolite CAS No 77536-66-5 (d) Actinolite CAS No 77536-66-4		
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(c) Anthophyllite CAS No 77536-67-5 (d) Actinolite CAS No 77536-66-4 date, the first subparagraph shall not apply until 1 July 2025 to the use in those installations of such diaphragms or of chrysotile used exclusively in the maintenance of such diaphragms, provided that such use is carried out in compliance with the conditions of a permit set in	CAS NO 121/2-73-5	
(d) Actinolite exclusively in the maintenance of such diaphragms, provided that such use is carried out in compliance with the conditions of a permit set in	(c) Anthophyllite	
CAS No 77536-66-4 use is carried out in compliance with the conditions of a permit set in	CAS No 77536-67-5	in those installations of such diaphragms or of chrysotile used
CAS NO 7/530-00-4	(d) Actinolite	exclusively in the maintenance of such diaphragms, provided that such
	CAS No 77536-66-4	use is carried out in compliance with the conditions of a permit set in accordance with Directive 2010/75/EU of the European Parliament and

(e) Tremolite	of the Council (*17).
CAS No 77536-68-6	Any downstream user benefiting from such an exemption shall send, by
(f) Chrysotile	31 January of each calendar year to the Member State in which the
(f) Chrysotile	relevant electrolysis installation is located, a report indicating the
CAS No 12001-29-5	amount of chrysotile used in diaphragms pursuant to the exemption.
CAS No 132207-32-0	The Member State shall transmit a copy to the European Commission.
	Where, in order to protect the health and safety of workers, a Member
	State requires monitoring of chrysotile in air by downstream users, the
	results shall be included in that report. ◀
	2. The use of articles containing asbestos fibres referred to in
	paragraph 1 which were already installed and/or in service before 1
	January 2005 shall continue to be permitted until they are disposed of
	or reach the end of their service life. However, Member States may, for
	reasons of protection of human health, restrict, prohibit or make subject
	to specific conditions, the use of such articles before they are disposed of or reach the end of their service life.
	Member States may allow placing on the market of articles in their
	entirety containing asbestos fibres referred to in paragraph 1 which
	were already installed and/or in service before 1 January 2005, under
	specific conditions ensuring a high level of protection of human health.
	Member States shall communicate these national measures to the
	Commission by 1 June 2011. The Commission shall make this
	information publicly available.
	Without prejudice to the application of other Community provisions
	on the classification, packaging and labelling of substances and
	mixtures, the placing on the market and use of articles containing these
	fibres, as permitted according to the preceding derogations, shall be
	permitted only if suppliers ensure before the placing on the market that
	articles bear a label in accordance with Appendix 7 to this Annex.
7. Tris(aziridinyl)phosphinoxide	Shall not be used in textile articles, such as garments, undergarments
CAS No 545-55-1	and linen, intended to come into contact with the skin.
EC No 208-892-5	2. Articles not complying with paragraph 1 shall not be placed on the
	market.
8. Polybromobiphenyls; Polybrominatedbiphenyls (PBB)	Shall not be used in textile articles, such as garments, undergarments
CAS No 59536-65-1	and linen, intended to come into contact with the skin.
	2. Articles not complying with paragraph 1 shall not be placed on the
	market.
9.	Shall not be used, in jokes and hoaxes or in mixtures or articles
(a) Soap bark powder	intended to be used as such, for instance as a constituent of sneezing
	powder and stink bombs.
(Quillaja saponaria) and its derivatives containing saponines	Jokes and hoaxes, or mixtures or articles intended to be used as
CAS No 68990-67-0	such, not complying with paragraph 1 shall not be placed on the market.
EC 273-620-4	, in the second of the final file.

(b) Powder of the roots of Helleborus viridis and Helleborus niger	3. However, paragraphs 1 and 2 shall not apply to stink bombs
(c) Powder of the roots of Veratrum album and Veratrum nigrum	containing not more than 1,5 ml of liquid.
(d) Benzidine and/or its derivatives	
CAS No 92-87-5	
EC No 202-199-1	
(e) o-Nitrobenzaldehyde	
CAS No 552-89-6	
EC No 209-025-3	
(f) Wood powder	
10.	1. Shall not be used, in jokes and hoaxes or in mixtures or articles
(a) Ammonium sulphide	intended to be used as such, for instance as a constituent of sneezing
CAS No 12135-76-1	powder and stink bombs.
EC No 235-223-4	2. Jokes and hoaxes, or mixtures or articles intended to be used as
(b) Ammonium hydrogen sulphide	such, not complying with paragraph 1 shall not be placed on the market.
CAS No 12124-99-1	3. However, paragraphs 1 and 2 shall not apply to stink bombs containing not more than 1,5 ml of liquid.
EC No 235-184-3	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
(c) Ammonium polysulphide	
CAS No 9080-17-5	
EC No 232-989-1	
11. Volatile esters of bromoacetic acids:	1. Shall not be used, in jokes and hoaxes or in mixtures or articles
(a) Methyl bromoacetate	intended to be used as such, for instance as a constituent of sneezing powder and stink bombs.
CAS No 96-32-2	
EC No 202-499-2	Jokes and hoaxes, or mixtures or articles intended to be used as such, not complying with paragraph 1 shall not be placed on the market.
(b) Ethyl bromoacetate	3. However, paragraphs 1 and 2 shall not apply to stink bombs
CAS No 105-36-2	containing not more than 1,5 ml of liquid.
EC No 203-290-9	
(c) Propyl bromoacetate	
CAS No 35223-80-4	
(d) Butyl bromoacetate	
CAS No 18991-98-5	
EC No 242-729-9	
12. 2-Naphthylamine	The following shall apply to entries 12 to 15:
CAS No 91-59-8	Shall not be placed on the market, or used, as substances or in mixtures
EC No 202-080-4 and its salts	in concentrations greater than 0,1 % by weight.
13. Benzidine	

CAS No 92-87-5	
EC No 202-199-1 and its salts	
14. 4-Nitrobiphenyl	
CAS No 92-93-3	
Einecs EC No 202-204-7	
15. 4-Aminobiphenyl xenylamine	
CAS No 92-67-1	
Einecs EC No 202-177-1 and its salts	
16. Lead carbonates:	Shall not be placed on the market, or used, as substances or in mixtures,
(a) Neutral anhydrous carbonate (PbCO ₃)	where the substance or mixture is intended for use as paint. ►M21 However, Member States may, in accordance with the provisions of
CAS No 598-63-0	International Labour Organization (ILO) Convention 13, permit the use
EC No 209-943-4	on their territory of the substance or mixture for the restoration and
(b) Trilead-bis(carbonate)-dihydroxide 2Pb CO ₃ -Pb(OH) ₂	maintenance of works of art and historic buildings and their interiors, as
CAS No 1319-46-6	well as the placing on the market for such use. Where a Member State
EC No 215-290-6	makes use of this derogation, it shall inform the Commission thereof. ◀
17. Lead sulphates:	Shall not be placed on the market, or used, as substances or in mixtures,
(a) PbSO ₄	where the substance or mixture is intended for use as paint. •M21
CAS No 7446-14-2	However, Member States may, in accordance with the provisions of International Labour Organization (ILO) Convention 13, permit the use
EC No 231-198-9	on their territory of the substance or mixture for the restoration and
(b) Pb _x SO ₄	maintenance of works of art and historic buildings and their interiors, as
CAS No 15739-80-7	well as the placing on the market for such use. Where a Member State
EC No 239-831-0	makes use of this derogation, it shall inform the Commission thereof. \blacktriangleleft
18. Mercury compounds	Shall not be placed on the market, or used, as substances or in mixtures
	where the substance or mixture is intended for use:
	(a) to prevent the fouling by micro-organisms, plants or animals of:
	— the hulls of boats,
	— cages, floats, nets and any other appliances or equipment used
	for fish or shellfish farming,
	 — any totally or partly submerged appliances or equipment;
	(b) in the preservation of wood;
	(c) in the impregnation of heavy-duty industrial textiles and yarn
	intended for their manufacture;
	(d) in the treatment of industrial waters, irrespective of their use.
18a. Mercury	Shall not be placed on the market:
CAS No 7439-97-6	(a) in fever thermometers;
EC No 231-106-7	(b) in other measuring devices intended for sale to the general public
	(such as manometers, barometers, sphygmomanometers,

thermometers other than fever thermometers). 2. The restriction in paragraph 1 shall not apply to measuring devices that were in use in the Community before 3 April 2009. However Member States may restrict or prohibit the placing on the market of such measuring devices. 3. The restriction in paragraph 1(b) shall not apply to: (a) measuring devices more than 50 years old on 3 October 2007; (b) barometers (except barometers within point (a)) until 3 October 2009. ►M19 **►**M19 5. The following mercury-containing measuring devices intended for industrial and professional uses shall not be placed on the market after 10 April 2014: (a) barometers; (b) hygrometers; (c) manometers; (d) sphygmomanometers; (e) strain gauges to be used with plethysmographs; (f) tensiometers; (g) thermometers and other non-electrical thermometric applications. The restriction shall also apply to measuring devices under points (a) to (g) which are placed on the market empty if intended to be filled with mercury. 6. The restriction in paragraph 5 shall not apply to: (a) sphygmomanometers to be used: (i) in epidemiological studies which are ongoing on 10 October 2012; (ii) as reference standards in clinical validation studies of mercury-free sphygmomanometers; (b) thermometers exclusively intended to perform tests according to standards that require the use of mercury thermometers until 10 October 2017; (c) mercury triple point cells which are used for the calibration of platinum resistance thermometers. 7. The following mercury-using measuring devices intended for professional and industrial uses shall not be placed on the market after 10 April 2014: (a) mercury pycnometers;

19. Arsenic compounds

1. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use to prevent the fouling by micro-organisms, plants or animals of:

(b) mercury metering devices for determination of the softening point.

8. The restrictions in paragraphs 5 and 7 shall not apply to:(a) measuring devices more than 50 years old on 3 October 2007;(b) measuring devices which are to be displayed in public exhibitions

for cultural and historical purposes. <

- the hulls of boats,
- cages, floats, nets and any other appliances or equipment used for fish or shellfish farming,
- any totally or partly submerged appliances or equipment.
- Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use in the treatment of industrial waters, irrespective of their use.
- 3. Shall not be used in the preservation of wood. Furthermore, wood so treated shall not be placed on the market.
- 4. By way of derogation from paragraph 3:
- (a) Relating to the substances and mixtures for the preservation of wood: these may only be used in industrial installations using vacuum or pressure to impregnate wood if they are solutions of inorganic compounds of the copper, chromium, arsenic (CCA) type C and if they are authorised in accordance with Article 5(1) of Directive 98/8/EC. Wood so treated shall not be placed on the market before fixation of the preservative is completed.
- (b) Wood treated with CCA solution in accordance with point (a) may be placed on the market for professional and industrial use provided that the structural integrity of the wood is required for human or livestock safety and skin contact by the general public during its service life is unlikely:
 - as structural timber in public and agricultural buildings, office buildings, and industrial premises,
 - in bridges and bridgework,
 - as constructional timber in freshwater areas and brackish waters, for example jetties and bridges,
 - as noise barriers,
 - in avalanche control,
 - in highway safety fencing and barriers,
 - as debarked round conifer livestock fence posts,
 - in earth retaining structures,
 - as electric power transmission and telecommunications poles,
 - as underground railway sleepers.
- (c) Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that all treated wood placed on the market is individually labelled 'For professional and industrial installation and use only, contains arsenic'. In addition, all wood placed on the market in packs shall also bear a label stating 'Wear gloves when handling this wood. Wear a dust mask and

this wood shall be treated as hazardous by an authorised undertaking'. (d) Treated wood referred to under point (a) shall not be used: - in residential or domestic constructions, whatever the purpose, - in any application where there is a risk of repeated skin contact, in marine waters, — for agricultural purposes other than for livestock fence posts and structural uses in accordance with point (b), - in any application where the treated wood may come into contact with intermediate or finished products intended for human and/or animal consumption. 5. Wood treated with arsenic compounds that was in use in the Community before 30 September 2007, or that was placed on the market in accordance with paragraph 4 may remain in place and continue to be used until it reaches the end of its service life. 6. Wood treated with CCA type C that was in use in the Community before 30 September 2007, or that was placed on the market in accordance with paragraph 4: - may be used or reused subject to the conditions pertaining to its use listed under points 4(b), (c) and (d), - may be placed on the market subject to the conditions pertaining to its use listed under points 4(b), (c) and (d). 7. Member States may allow wood treated with other types of CCA solutions that was in use in the Community before 30 September 2007: - to be used or reused subject to the conditions pertaining to its use listed under points 4 (b), (c) and (d), - to be placed on the market subject to the conditions pertaining to its use listed under points 4(b), (c) and (d). 20. Organostannic compounds 1. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is acting as biocide in free association paint. 2. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture acts as biocide to prevent the fouling by micro-organisms, plants or animals of: (a) all craft irrespective of their length intended for use in marine, coastal, estuarine and inland waterways and lakes; (b) cages, floats, nets and any other appliances or equipment used for fish or shellfish farming; (c) any totally or partly submerged appliance or equipment. 3. Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use in the treatment of industrial waters. ►M6

eye protection when cutting or otherwise crafting this wood. Waste from

- 4. Tri-substituted organostannic compounds:
- (a) Tri-substituted organostannic compounds such as tributyltin (TBT) compounds and triphenyltin (TPT) compounds shall not be used after 1 July 2010 in articles where the concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin.
- (b) Articles not complying with point (a) shall not be placed on the market after 1 July 2010, except for articles that were already in use in the Community before that date.
- 5. Dibutyltin (DBT) compounds:
- (a) Dibutyltin (DBT) compounds shall not be used after 1 January 2012 in mixtures and articles for supply to the general public where the concentration in the mixture or the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin.
- (b) Articles and mixtures not complying with point (a) shall not be placed on the market after 1 January 2012, except for articles that were already in use in the Community before that date.
- (c) By way of derogation, points (a) and (b) shall not apply until 1 January 2015 to the following articles and mixtures for supply to the general public:
 - one-component and two-component room temperature vulcanisation sealants (RTV-1 and RTV-2 sealants) and adhesives,
 - paints and coatings containing DBT compounds as catalysts when applied on articles,
 - soft polyvinyl chloride (PVC) profiles whether by themselves or coextruded with hard PVC,
 - fabrics coated with PVC containing DBT compounds as stabilisers when intended for outdoor applications,
 - outdoor rainwater pipes, gutters and fittings, as well as covering material for roofing and façades,
- (d) By way of derogation, points (a) and (b) shall not apply to materials and articles regulated under Regulation (EC) No 1935/2004.
 - 6. Dioctyltin (DOT) compound:
- (a) Dioctyltin (DOT) compounds shall not be used after 1 January 2012 in the following articles for supply to, or use by, the general public, where the concentration in the article, or part thereof, is greater than the equivalent of 0,1 % by weight of tin:
 - textile articles intended to come into contact with the skin,
 - gloves,
 - footwear or part of footwear intended to come into contact with the skin,
 - wall and floor coverings,
 - childcare articles,

21. Di- μ -oxo-di-n-butylstanniohydroxyborane/Dibutyltin hydrogen borate C ₈ H ₁₉ BO ₃ Sn (DBB)	 — female hygiene products, — nappies, — two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits). (b) Articles not complying with point (a) shall not be placed on the market after 1 January 2012, except for articles that were already in use in the Community before that date. Shall not be placed on the market, or used, as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight.
CAS No 75113-37-0	However, the first paragraph shall not apply to this substance (DBB) or
EC No 401-040-5	mixtures containing it if these are intended solely for conversion into articles, among which this substance will no longer feature in a concentration equal to or greater than 0,1 %.
▼M61 ———	
▼M5	
23. Cadmium	For the purpose of this entry, the codes and chapters indicated in square
CAS No 7440-43-9	brackets are the codes and chapters of the tariff and statistical
EC No 231-152-8 and its compounds	nomenclature of Common Customs Tariff as established by Council Regulation (EEC) No 2658/87 (*¹). ►M13
	Shall not be used in mixtures and articles produced from the following
	synthetic organic polymers (hereafter referred to as plastic material):
	— polymers or copolymers of vinyl chloride (PVC) [3904 10] [3904 21]
	— polyurethane (PUR) [3909 50]
	 low-density polyethylene (LDPE), with the exception of low- density polyethylene used for the production of coloured masterbatch [3901 10]
	— cellulose acetate (CA) [3912 11]
	— cellulose acetate butyrate (CAB) [3912 11]
	— epoxy resins [3907 30]
	— melamine-formaldehyde (MF) resins [3909 20]
	— urea-formaldehyde (UF) resins [3909 10]
	— unsaturated polyesters (UP) [3907 91]
	— polyethylene terephthalate (PET) [3907 60]
	— polybutylene terephthalate (PBT)
	— transparent/general-purpose polystyrene [3903 11]
	acrylonitrile methylmethacrylate (AMMA)
	— cross-linked polyethylene (VPE)
	— high-impact polystyrene

- polypropylene (PP) [3902 10]

Mixtures and articles produced from plastic material as listed above shall not be placed on the market if the concentration of cadmium (expressed as Cd metal) is equal to or greater than 0,01 % by weight of the plastic material.

By way of derogation, the second subparagraph shall not apply to articles placed on the market before 10 December 2011.

The first and second subparagraphs apply without prejudice to Council Directive 94/62/EC (*13) and acts adopted on its basis.

- By 19 November 2012, in accordance with Article 69, the Commission shall ask the European Chemicals Agency to prepare a dossier conforming to the requirements of Annex XV in order to assess whether the use of cadmium and its compounds in plastic material, other than that listed in subparagraph 1, should be restricted. •M35
- Shall not be used or placed on the market in paints with codes
 [3208] [3209] in a concentration (expressed as Cd metal) equal to or greater than 0,01 % by weight.

For paints with codes [3208] [3209] with a zinc content exceeding 10 % by weight of the paint, the concentration of cadmium (expressed as Cd metal) shall not be equal to or greater than 0,1 % by weight. Painted articles shall not be placed on the market if the concentration of cadmium (expressed as Cd metal) is equal to or greater than 0,1 % by weight of the paint on the painted article.

- 3. By way of derogation, paragraphs 1 and 2 shall not apply to articles coloured with mixtures containing cadmium for safety reasons.
- 4. By way of derogation, paragraph 1, second subparagraph shall not apply to:
 - mixtures produced from PVC waste, hereinafter referred to as 'recovered PVC',
 - mixtures and articles containing recovered PVC if their concentration of cadmium (expressed as Cd metal) does not exceed 0,1 % by weight of the plastic material in the following rigid PVC applications:

profiles and rigid sheets for building applications;

doors, windows, shutters, walls, blinds, fences, and roof gutters;

decks and terraces;

cable ducts:

pipes for non-drinking water if the recovered PVC is used in the middle layer of a multilayer pipe and is entirely covered with a layer of newly produced PVC in compliance with paragraph 1 above.

Suppliers shall ensure, before the placing on the market of mixtures and articles containing recovered PVC for the first time, that these are visibly, legibly and indelibly marked as follows: 'Contains recovered

PVC or with the following pictogram:



In accordance with Article 69 of this Regulation, the derogation granted in paragraph 4 will be reviewed, in particular with a view to reducing the limit value for cadmium and to reassess the derogation for the applications listed in points (a) to (e), by 31 December 2017. ◀

For the purpose of this entry, 'cadmium plating' means any deposit or coating of metallic cadmium on a metallic surface.

Shall not be used for cadmium plating metallic articles or components of the articles used in the following sectors/applications:

- (a) equipment and machinery for:
- food production [8210] [8417 20] [8419 81] [8421 11] [8421 22] [8422] [8435] [8437] [8438] [8476 11]
- agriculture [8419 31] [8424 81] [8432] [8433] [8434] [8436]
- cooling and freezing [8418]
- printing and book-binding [8440] [8442] [8443]
 - (b) equipment and machinery for the production of:
- household goods [7321] [8421 12] [8450] [8509] [8516]
- furniture [8465] [8466] [9401] [9402] [9403] [9404]
- sanitary ware [7324]
- central heating and air conditioning plant [7322] [8403] [8404][8415]

In any case, whatever their use or intended final purpose, the placing on the market of cadmium-plated articles or components of such articles used in the sectors/applications listed in points (a) and (b) above and of articles manufactured in the sectors listed in point (b) above is prohibited.

- 6. The provisions referred to in paragraph 5 shall also be applicable to cadmium-plated articles or components of such articles when used in the sectors/applications listed in points (a) and (b) below and to articles manufactured in the sectors listed in (b) below:
 - (a) equipment and machinery for the production of:
 - paper and board [8419 32] [8439] [8441] textiles and clothing [8444] [8445] [8447] [8448] [8449] [8452]
 - (b) equipment and machinery for the production of:
 - industrial handling equipment and machinery [8425] [8426][8427] [8428] [8429] [8430] [8431]
 - road and agricultural vehicles [chapter 87]
 - rolling stock [chapter 86]

	7. However, the restrictions in paragraphs 5 and 6 shall not apply to:
	— articles and components of the articles used in the aeronautical,
	aerospace, mining, offshore and nuclear sectors whose
	applications require high safety standards and in safety devices
	in road and agricultural vehicles, rolling stock and vessels,
	— electrical contacts in any sector of use, where that is necessary
	to ensure the reliability required of the apparatus on which they
	are installed.
	►M13
	8. Shall not be used in brazing fillers in concentration equal to or
	greater than 0,01 % by weight.
	Brazing fillers shall not be placed on the market if the concentration of
	cadmium (expressed as Cd metal) is equal to or greater than 0,01 % by weight.
	For the purpose of this paragraph brazing shall mean a joining
	technique using alloys and undertaken at temperatures above 450 °C.
	By way of derogation, paragraph 8 shall not apply to brazing fillers used in defence and aerospace applications and to brazing fillers used
	for safety reasons.
	10. Shall not be used or placed on the market if the concentration is
	equal to or greater than 0,01 % by weight of the metal in:
	(i) metal beads and other metal components for jewellery making;
	(ii) metal parts of jewellery and imitation jewellery articles and hair
	accessories, including:
	— bracelets, necklaces and rings,
	— piercing jewellery,
	— wrist-watches and wrist-wear,
	— brooches and cufflinks.
	►C5
	11. By way of derogation, paragraph 10 shall not apply to articles
	placed on the market before 10 December 2011 and jewellery more
	than 50 years old on 10 December 2011. ◀ ◀
24. Monomethyl — tetrachlorodiphenyl methane	1. Shall not be placed on the market, or used, as a substance or in
Trade name: Ugilec 141	mixtures.
CAS No 76253-60-6	Articles containing the substance shall not be placed on the market.
	2. By way of derogation, paragraph 1 shall not apply:
	(a) in the case of plant and machinery already in service on 18 June
	1994, until such plant and machinery is disposed of;
	(b) in the case of the maintenance of plant and machinery already in
	service within a Member State on 18 June 1994.

- vessels [chapter 89]

	For the purposes of point (a) Member States may, on grounds of human health protection and environmental protection, prohibit within their territory the use of such plant or machinery before it is disposed of.
25. Monomethyl-dichloro-diphenyl methane Trade name: Ugilec 121 Ugilec 21	Shall not be placed on the market, or used, as a substance or in mixtures. Articles containing the substance shall not be placed on the market.
26. Monomethyl-dibromo-diphenyl methane bromobenzylbromotoluene, mixture of isomers Trade name: DBBT CAS No 99688-47-8	Shall not be placed on the market, or used, as a substance or in mixtures. Articles containing the substance shall not be placed on the market.
27. Nickel	Shall not be used:
CAS No 7440-02-0 EC No 231-111-4 and its compounds	(a) in any post assemblies which are inserted into pierced ears and other pierced parts of the human body unless the rate of nickel release from such post assemblies is less than 0,2 μ g/cm²/week (migration limit);
	 (b) in articles intended to come into direct and prolonged contact with the skin such as: — earrings, — necklaces, bracelets and chains, anklets, finger rings, — wrist-watch cases, watch straps and tighteners, — rivet buttons, tighteners, rivets, zippers and metal marks, when these are used in garments,
	if the rate of nickel release from the parts of these articles coming into direct and prolonged contact with the skin is greater than 0,5 μ g/cm²/week.
	(c) in articles referred to in point (b) where these have a non-nickel coating unless such coating is sufficient to ensure that the rate of nickel release from those parts of such articles coming into direct and prolonged contact with the skin will not exceed 0,5 µg/cm²/week for a period of at least two years of normal use of the article.
	2. Articles which are the subject of paragraph 1 shall not be placed on the market unless they conform to the requirements set out in that paragraph.
	3. The standards adopted by the European Committee for Standardisation (CEN) shall be used as the test methods for demonstrating the conformity of articles to paragraphs 1 and 2.
►M49 28. Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.	

- 29. Substances which are classified as germ cell mutagen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 3 or Appendix 4, respectively.
- 30. Substances which are classified as reproductive toxicant category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 5 or Appendix 6, respectively. ◀
- as constituents of other substances, or,
- in mixtures.

for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than:

 either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or,

►M3

 the relevant generic concentration limit specified in Part 3 of Annex I of Regulation (EC) No 1272/2008.

4

Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows:

'Restricted to professional users'.

- 2. By way of derogation, paragraph 1 shall not apply to:
- (a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC;
- (b) cosmetic products as defined by Directive 76/768/EEC;
- (c) the following fuels and oil products:
 - motor fuels which are covered by Directive 98/70/EC,
 - mineral oil products intended for use as fuel in mobile or fixed combustion plants,
 - fuels sold in closed systems (e.g. liquid gas bottles);

►M3

(d) artists' paints covered by Regulation (EC) No 1272/2008; ◀▶

M14

(e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the said

date; **◄ ►M61**

(f) devices covered by Regulation (EU) 2017/745. ◀

- (a) Creosote; wash oil
- CAS No 8001-58-9

EC No 232-287-5

- (b) Creosote oil; wash oil
- CAS No 61789-28-4
- EC No 263-047-8
- (c) Distillates (coal tar), naphthalene oils; naphthalene oil

31.

- Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for the treatment of wood. Furthermore, wood so treated shall not be placed on the market.
- 2. By way of derogation from paragraph 1:
- (a) The substances and mixtures may be used for wood treatment in industrial installations or by professionals covered by Community legislation on the protection of workers for in situ retreatment only if they contain:

CAS No 84650-04-4

EC No 283-484-8

(d) Creosote oil, acenaphthene fraction; wash oil

CAS No 90640-84-9

EC No 283-484-8EC No 292-605-3

(e) Distillates (coal tar), upper; heavy anthracene oil

CAS No 65996-91-0

EC No 266-026-1

(f) Anthracene oil

CAS No 90640-80-5

EC No 292-602-7

(g) Tar acids, coal, crude; crude phenols

CAS No 65996-85-2

EC No 266-019-3

(h) Creosote, wood

CAS No 8021-39-4

EC No 232-419-1

(i) Low temperature tar oil, alkaline; extract residues (coal), low temperature coal tar alkaline

CAS No 122384-78-5

EC No 310-191-5

- (i) benzo[a]pyrene at a concentration of less than 50 mg/kg (0,005 % by weight), and
- (ii) water extractable phenols at a concentration of less than 3 % by weight.

Such substances and mixtures for use in wood treatment in industrial installations or by professionals:

- may be placed on the market only in packaging of a capacity equal to or greater than 20 litres,
- shall not be sold to consumers.

Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is visibly, legibly and indelibly marked as follows:

'For use in industrial installations or professional treatment only'.

- (b) Wood treated in industrial installations or by professionals according to subparagraph (a) which is placed on the market for the first time or retreated in situ may be used for professional and industrial use only, for example on railways, in electric power transmission and telecommunications, for fencing, for agricultural purposes (for example stakes for tree support) and in harbours and waterways.
- (c) The prohibition in paragraph 1 on the placing on the market shall not apply to wood which has been treated with substances listed in entry 31(a) to (i) before 31 December 2002 and is placed on the second-hand market for re-use.
- 3. Treated wood referred to under paragraph 2(b) and (c) shall not be used:
 - inside buildings, whatever their purpose,
 - in toys,
 - in playgrounds,
 - in parks, gardens, and outdoor recreational and leisure facilities
 where there is a risk of frequent skin contact,
 - in the manufacture of garden furniture such as picnic tables,
 - for the manufacture and use and any re-treatment of:

- containers intended for growing purposes,
- packaging that may come into contact with raw materials, intermediate or finished products destined for human and/or animal consumption,
- other materials which may contaminate the articles mentioned above.

32. Chloroform

CAS No 67-66-3

EC No 200-663-8

34. 1,1,2-Trichloroethane

CAS No 79-00-5

EC No 201-166-9

35. 1,1,2,2-Tetrachloroethane

CAS No 79-34-5

EC No 201-197-8

36. 1,1,1,2-Tetrachloroethane

CAS No 630-20-6

37. Pentachloroethane

CAS No 76-01-7

EC No 200-925-1

38. 1,1-Dichloroethene

CAS No 75-35-4

EC No 200-864-0

Without prejudice to the other parts of this Annex, the following shall apply to entries 32 to 38.

- 1. Shall not be placed on the market, or used,
 - as substances,
 - as constituents of other substances, or in mixtures in concentrations equal to or greater than 0,1 % by weight,

where the substance or mixture is intended for supply to the general public and/or is intended for diffusive applications such as in surface cleaning and cleaning of fabrics.

2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures containing them in concentrations equal to or greater than 0,1 % by weight is visibly, legibly and indelibly marked as follows:

'For use in industrial installations only'.

By way of derogation this provision shall not apply to:

- (a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC;
- (b) cosmetic products as defined by Directive 76/768/EEC.

►M3

40. Substances classified as flammable gases category 1 or 2, flammable where these aerosol dispensers are intended for supply to the general liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI ►M21 to Regulation (EC) No 1272/2008 ◀ or not. ◀

- 1. Shall not be used, as substance or as mixtures in aerosol dispensers public for entertainment and decorative purposes such as the following:
 - metallic glitter intended mainly for decoration,
 - artificial snow and frost,
 - 'whoopee' cushions,
 - silly string aerosols,
 - imitation excrement,
 - horns for parties,
 - decorative flakes and foams,
 - artificial cobwebs.
 - stink bombs.
- 2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:

'For professional users only'.

3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (*2).

	T
	4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.
	placed on the market unless they comorn to the requirements indicated.
41. Hexachloroethane	Shall not be placed on the market, or used, as substance or in mixtures,
CAS No 67-72-1	where the substance or mixture is intended for the manufacturing or
EC No 200-666-4	processing of non-ferrous metals.
▼M21 ———	
▼M5	
43. Azocolourants and Azodyes	1. Azodyes which, by reductive cleavage of one or more azo groups,
	may release one or more of the aromatic amines listed in Appendix 8, in
	detectable concentrations, i.e. above 30 mg/kg (0,003 % by weight) in
	the articles or in the dyed parts thereof, according to the testing methods
	listed in Appendix 10, shall not be used, in textile and leather articles
	which may come into direct and prolonged contact with the human skin
	or oral cavity, such as:
	 — clothing, bedding, towels, hairpieces, wigs, hats, nappies and other sanitary items, sleeping bags,
	— footwear, gloves, wristwatch straps, handbags, purses/wallets,
	briefcases, chair covers, purses worn round the neck,
	- textile or leather toys and toys which include textile or leather
	garments,
	— yarn and fabrics intended for use by the final consumer.
	2. Furthermore, the textile and leather articles referred to in paragraph
	1 shall not be placed on the market unless they conform to the
	requirements set out in that paragraph.
	3. Azodyes, which are contained in Appendix 9, 'List of azodyes' shall
	not be placed on the market, or used, as substances, or in mixtures in
	concentrations greater than 0,1 % by weight, where the substance or the
	mixture is intended for colouring textile and leather articles.
▼M9 ————	
▼ M5	
45. Diphenylether, octabromo derivative	Shall not be placed on the market, or used:
C ₁₂ H ₂ Br ₈ O	— as a substance,
	— as a constituent of other substances, or in mixtures, in
	concentrations greater than 0,1 % by weight.
	Articles shall not be placed on the market if they, or flame-retardant
	parts thereof, contain this substance in concentrations greater than
	0,1 % by weight.
	3. By way of derogation, paragraph 2 shall not apply:

	— to articles that were in use in the Community before 15 August 2004,
	 to electrical and electronic equipment within the scope of Directive 2002/95/EC.
46.	Shall not be placed on the market, or used, as substances or in mixtures
(a) Nonylphenol	in concentrations equal to or greater than 0,1 % by weight for the
C ₆ H4(OH)C ₉ H ₁₉	following purposes:
(b) Nonylphenol ethoxylates	(1) industrial and institutional cleaning except:
$(C_2H_4O)_nC_{15}H_{24}O$	 controlled closed dry cleaning systems where the washing liquid is recycled or incinerated,
	 cleaning systems with special treatment where the washing liquid is recycled or incinerated.
	(2) domestic cleaning;
	(3) textiles and leather processing except:
	processing with no release into waste water,
	systems with special treatment where the process water is pre-
	treated to remove the organic fraction completely prior to biological waste water treatment (degreasing of sheepskin);
	(4) emulsifier in agricultural teat dips;
	(5) metal working except:
	uses in controlled closed systems where the washing liquid is recycled or incinerated;
	(6) manufacturing of pulp and paper;
	(7) cosmetic products;
	(8) other personal care products except:
	spermicides;
	(9) co-formulants in pesticides and biocides. However national authorisations for pesticides or biocidal products containing nonylphenol ethoxylates as co-formulant, granted before 17 July 2003, shall not be affected by this restriction until their date of expiry.
-M04	,
▼M34	
46a. Nonylphenol ethoxylates (NPE)	Shall not be placed on the market after 3 February 2021 in textile articles which can reasonably be expected to be weaked in water division.
(C ₂ H ₄ O) _n C ₁₅ H ₂₄ O	articles which can reasonably be expected to be washed in water during their normal lifecycle, in concentrations equal to or greater than 0,01 %
	by weight of that textile article or of each part of the textile article.
	Paragraph 1 shall not apply to the placing on the market of second-hand textile articles or of new textile articles produced, without the use

of NPE, exclusively from recycled textiles.

3. For the purposes of paragraphs 1 and 2, 'textile article' means any
unfinished, semi-finished or finished product which is composed of at
least 80 % textile fibres by weight, or any other product that contains a
part which is composed of at least 80 % textile fibres by weight, including
products such as clothing, accessories, interior textiles, fibres, yarn,
fabrics and knitted panels.

47. Chromium VI compounds

- Cement and cement-containing mixtures shall not be placed on the market, or used, if they contain, when hydrated, more than 2 mg/kg (0,0002 %) soluble chromium VI of the total dry weight of the cement.
- 2. If reducing agents are used, then without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of cement or cement-containing mixtures is visibly, legibly and indelibly marked with information on the packing date, as well as on the storage conditions and the storage period appropriate to maintaining the activity of the reducing agent and to keeping the content of soluble chromium VI below the limit indicated in paragraph 1.
- 3. By way of derogation, paragraphs 1 and 2 shall not apply to the placing on the market for, and use in, controlled closed and totally automated processes in which cement and cement-containing mixtures are handled solely by machines and in which there is no possibility of contact with the skin. ►M21
- 4. The standard adopted by the European Committee for Standardization (CEN) for testing the water-soluble chromium (VI) content of cement and cement-containing mixtures shall be used as the test method for demonstrating conformity with paragraph 1. ◄►M25
- 5. Leather articles coming into contact with the skin shall not be placed on the market where they contain chromium VI in concentrations equal to or greater than 3 mg/kg (0,0003 % by weight) of the total dry weight of the leather.
- 6. Articles containing leather parts coming into contact with the skin shall not be placed on the market where any of those leather parts contains chromium VI in concentrations equal to or greater than 3 mg/kg (0,0003 % by weight) of the total dry weight of that leather part.
- Paragraphs 5 and 6 shall not apply to the placing on the market of second-hand articles which were in end-use in the Union before 1 May 2015. ◄

48. Toluene
CAS No 108-88-3
EC No 203-625-9

Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than 0,1 % by weight where the

	substance or mixture is used in adhesives or spray paints intended for supply to the general public.
49. Trichlorobenzene	Shall not be placed on the market, or used, as a substance or in mixtures
CAS No 120-82-1	in a concentration equal to or greater than 0,1 % by weight for any use
EC No 204-428-0	except:
	— as an intermediate of synthesis, or,
	 — as a process solvent in closed chemical applications for
	chlorination reactions, or,
	— in the manufacture of 1,3,5-triamino — 2,4,6-trinitrobenzene
	(TATB).
50. Polycyclic-aromatic hydrocarbons (PAH)	1. From 1 January 2010, extender oils shall not be placed on the
(a) Benzo[a]pyrene (BaP)	market, or used for the production of tyres or parts of tyres if they
CAS No 50-32-8	contain:
07.0 110 00 02 0	— more than 1 mg/kg (0,0001 % by weight) BaP, or,
(b) Benzo[e]pyrene (BeP)	— more than 10 mg/kg (0,001 % by weight) of the sum of all listed
CAS No 192-97-2	PAHs.
(c) Benzo[a]anthracene (BaA)	
CAS No 56-55-3	The standard EN 16143:2013 (Petroleum products — Determination
	of content of Benzo(a)pyrene (BaP) and selected polycyclic aromatic
(d) Chrysen (CHR)	hydrocarbons (PAH) in extender oils — Procedure using double LC
CAS No 218-01-9	cleaning and GC/MS analysis) shall be used as the test method for demonstrating conformity with the limits referred to in the first
(e) Benzo[b]fluoranthene (BbFA)	subparagraph.
CAS No 205-99-2	Until 23 September 2016, the limits referred to in the first subparagraph
	may be regarded as kept, if the polycyclic aromatics (PCA) extract is
(f) Benzo[j]fluoranthene (BjFA)	less than 3 % by weight as measured by the Institute of Petroleum
CAS No 205-82-3	standard IP 346:1998 (Determination of PCA in unused lubricating
(g) Benzo[k]fluoranthene (BkFA)	base oils and asphaltene free petroleum fractions — Dimethyl
CAS No 207-08-9	sulphoxide extraction refractive index method), provided that compliance with the limits of BaP and of the listed PAHs, as well as the
	correlation of the measured values with the PCA extract, is measured
(h) Dibenzo[a,h]anthracene (DBAhA)	by the manufacturer or importer every six months or after each major
CAS No 53-70-3	operational change, whichever is earlier.
	2. Furthermore, tyres and treads for retreading manufactured after 1
	January 2010 shall not be placed on the market if they contain
	extender oils exceeding the limits indicated in paragraph 1.
	These limits shall be regarded as kept, if the vulcanised rubber compounds do not exceed the limit of 0,35 % Bay protons as measured
	and calculated by ISO 21461 (Rubber vulcanised — Determination of
	aromaticity of oil in vulcanised rubber compounds).
	3. By way of derogation, paragraph 2 shall not apply to retreaded tyres
	if their tread does not contain extender oils exceeding the limits
	referred to in paragraph 1.
	4. For the purpose of this entry 'tyres' shall mean tyres for vehicles
	covered by:

- Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers (*4),
- Directive 2003/37/EC of the European Parliament and of the Council of 26 May 2003 on type-approval of agricultural or forestry tractors, their trailers and interchangeable towed machinery, together with their systems, components and separate technical units (*5), and
- Directive 2002/24/EC of the European Parliament and of the Council of 18 March 2002 relating to the type-approval of two or three-wheel motor vehicles and repealing Council Directive 92/61/EEC (*6).

►M24

5. Articles shall not be placed on the market for supply to the general public, if any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use, contain more than 1 mg/kg (0,0001 % by weight of this component) of any of the listed PAHs.

Such articles include amongst others:

- sport equipment such as bicycles, golf clubs, racquets
- household utensils, trolleys, walking frames
- tools for domestic use
- clothing, footwear, gloves and sportswear
- watch-straps, wrist-bands, masks, head-bands
- 6. Toys, including activity toys, and childcare articles, shall not be placed on the market, if any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use, contain more than 0,5 mg/kg (0,00005 % by weight of this component) of any of the listed PAHs.
- 7. By way of derogation from paragraphs 5 and 6, these paragraphs shall not apply to articles placed on the market for the first time before 27 December 2015.
- 8. By 27 December 2017, the Commission shall review the limit values in paragraphs 5 and 6 in the light of new scientific information, including migration of PAHs from the articles referred to therein, and information on alternative raw materials and, if appropriate, modify these
 - paragraphs accordingly. ◀ ►M65
- 9. Granules or mulches shall not be placed on the market for use as infill material in synthetic turf pitches or in loose form on playgrounds or in sport applications if they contain more than 20 mg/kg (0,002 % by weight) of the sum of all listed PAHs.
- 10. Granules or mulches shall not be used as infill material in synthetic turf pitches or in loose form on playgrounds or in sport applications if they contain more than 20 mg/kg (0,002 % by weight) of the sum of all

listed PAHs.

- 11. Granules or mulches placed on the market for use as infill material in synthetic turf pitches or in loose form on playgrounds or in sport applications shall be marked with a unique identification number of the
 - 12. Paragraphs 9 to 11 shall apply from 10 August 2022.
- 13. Granules or mulches that are in use in the Union on 9 August 2022 as infill material in synthetic turf pitches or in loose form on playgrounds or in sport applications may remain in place and continue to be used there for the same purpose.
 - 14. For the purposes of paragraphs 9 to 13:
- (a) 'granules' are mixtures that appear as solid particles in the size range from 1 to 4 mm, which are made from rubber or other vulcanised or polymeric material of recycled or virgin origin, or obtained from a natural source;
- (b) 'mulches' are mixtures that appear as flake-shaped solid particles in the size range from 4 to 130 mm length and 10 to 15 mm width, which are made from rubber or other vulcanised or polymeric material of recycled or virgin origin, or obtained from a natural source;
- (c) 'infill material in synthetic turf pitches' consists of granules used in synthetic turf pitches to improve the sport technical performance characteristics of the turf system;
- (d) 'use in loose form on playgrounds or in sport applications' is any use of granules or mulches in loose form on playgrounds or for sport purposes other than as infill material in synthetic turf pitches. ◄

▼M52

51.

Bis(2-ethylhexyl) phthalate (DEHP)

CAS No.: 117-81-7 EC No.: 204-211-0 Dibutyl phthalate (DBP)

CAS No.: 84-74-2 EC No.: 201-557-4

Benzyl butyl phthalate (BBP)

CAS No.: 85-68-7 EC No.: 201-622-7

Diisobutyl phthalate (DIBP)

CAS No.: 84-69-5 EC No.: 201-553-2

- 1. Shall not be used as substances or in mixtures, individually or in any combination of the phthalates listed in column 1 of this entry, in a concentration equal to or greater than 0,1 % by weight of the plasticised material, in toys and childcare articles.
- 2. Shall not be placed on the market in toys or childcare articles, individually or in any combination of the first three phthalates listed in column 1 of this entry, in a concentration equal to or greater than 0,1 % by weight of the plasticised material.
- In addition, DIBP shall not be placed on the market after 7 July 2020 in toys or childcare articles, individually or in any combination with the first three phthalates listed in column 1 of this entry, in a concentration equal to or greater than 0,1 % by weight of the plasticised material.
- 3. Shall not be placed on the market after 7 July 2020 in articles, individually or in any combination of the phthalates listed in column 1 of this entry, in a concentration equal to or greater than 0,1 % by weight of the plasticised material in the article.
- 4. Paragraph 3 shall not apply to:
- (a) articles exclusively for industrial or agricultural use, or for use exclusively in the open air, provided that no plasticised material comes

into contact with human mucous membranes or into prolonged contact with human skin;

- (b) aircraft, placed on the market before 7 January 2024, or articles, whenever placed on the market, for use exclusively in the maintenance or repair of those aircraft, where those articles are essential for the safety and airworthiness of the aircraft;
- (c) motor vehicles within the scope of Directive 2007/46/EC, placed on the market before 7 January 2024, or articles, whenever placed on the market, for use exclusively in the maintenance or repair of those vehicles, where the vehicles cannot function as intended without those articles;
- (d) articles placed on the market before 7 July 2020;
- (e) measuring devices for laboratory use, or parts thereof;
- (f) materials and articles intended to come into contact with food within the scope of Regulation (EC) No 1935/2004 or Commission Regulation (EU) No 10/2011 (*21);
- (g) medical devices within the scope of Directives 90/385/EEC, 93/42/EEC or 98/79/EC, or parts thereof;
- (h) electrical and electronic equipment within the scope of Directive 2011/65/EU;
- (i) the immediate packaging of medicinal products within the scope of Regulation (EC) No 726/2004, Directive 2001/82/EC or Directive 2001/83/EC;
- (j) toys and childcare articles covered by paragraphs 1 or 2.
- 5. For the purposes of paragraphs 1, 2, 3 and 4(a),
- (a) 'plasticised material' means any of the following homogeneous materials:
 - polyvinyl chloride (PVC), polyvinylidene chloride (PVDC),polyvinyl acetate (PVA), polyurethanes,
 - any other polymer (including, inter alia, polymer foams and rubber material) except silicone rubber and natural latex coatings,
 - surface coatings, non-slip coatings, finishes, decals, printed designs,
 - adhesives, sealants, paints and inks.
- (b) 'prolonged contact with human skin' means continuous contact of more than 10 minutes duration or intermittent contact over a period of 30 minutes, per day.

	 (c) 'childcare article' shall mean any product intended to facilitate sleep, relaxation, hygiene, the feeding of children or sucking on the part of children. 6. For the purposes of paragraph 4(b), 'aircraft' means one of the following:
	(a) a civil aircraft produced in accordance with a type certificate issued under Regulation (EC) No 216/2008 or with a design approval issued under the national regulations of a contracting State of the International Civil Aviation Organisation (ICAO), or for which a certificate of airworthiness has been issued by an ICAO contracting State under Annex 8 to the Convention on International Civil Aviation, signed or December 7, 1944, in Chicago;
	(b) a military aircraft.
▼M5	
52. The following phthalates (or other CAS- and EC numbers covering the substance):(a) Di-'isononyl' phthalate (DINP)CAS No 28553-12-0 and 68515-48-0	21. Shall not be used as substances or in mixtures, in concentrations greater than 0,1 % by weight of the plasticised material, in toys and childcare articles which can be placed in the mouth by children. 2. Such toys and childcare articles containing these phthalates in a concentration greater than 0,1 % by weight of the plasticised material
EC No 249-079-5 and 271-090-9	shall not be placed on the market. ►M30 ◀
(b) Di-'isodecyl' phthalate (DIDP)	4. For the purpose of this entry 'childcare article' shall mean any
CAS No 26761-40-0 and 68515-49-1	product intended to facilitate sleep, relaxation, hygiene, the feeding of
EC No 247-977-1 and 271-091-4	children or sucking on the part of children.
(c) Di-n-octyl phthalate (DNOP)	
CAS No 117-84-0	
EC No 204-214-7	
▼M9	
▼M5	
54. 2-(2-methoxyethoxy)ethanol (DEGME)	Shall not be placed on the market after 27 June 2010, for supply to the
CAS No 111-77-3	general public, as a constituent of paints, paint strippers, cleaning
EC No 203-906-6	agents, self-shining emulsions or floor sealants in concentrations equa to or greater than 0,1 % by weight.
55. 2-(2-butoxyethoxy)ethanol (DEGBE)	1. Shall not be placed on the market for the first time after 27 June 2010
CAS No 112-34-5	for supply to the general public, as a constituent of spray paints or spray
EC No 203-961-6	cleaners in aerosol dispensers in concentrations equal to or greater than 3 % by weight.
	2. Spray paints and spray cleaners in aerosol dispensers containing DEGBE and not conforming to paragraph 1 shall not be placed on the

3. Without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that paints other than spray paints containing DEGBE in concentrations equal to or greater than 3 % by weight of that are placed on the market for supply to the general public are visibly, legibly and indelibly marked by 27 December 2010 as follows: 'Do not use in paint spraying equipment'. ►M21 1. Shall not be placed on the market after 27 December 2010, as a constituent of mixtures in concentrations equal to or greater than 0,1 %56. Methylenediphenyl diisocyanate (MDI) CAS No 26447-40-5 by weight of MDI for supply to the general public, unless suppliers shall EC No 247-714-0 ensure before the placing on the market that the packaging: including the following specific isomers: (a) contains protective gloves which comply with the requirements of (a) 4,4'-Methylenediphenyl diisocyanate: Council Directive 89/686/EEC (*9); CAS No 101-68-8 (b) is marked visibly, legibly and indelibly as follows, and without EC No 202-966-0; prejudice to other Community legislation concerning the classification, (b) 2,4'-Methylenediphenyl diisocyanate: packaging and labelling of substances and mixtures: CAS No 5873-54-1 EC No 227-534-9; - Persons already sensitised to diisocyanates may develop allergic (c) 2,2'-Methylenediphenyl diisocyanate: reactions when using this product. CAS No 2536-05-2 - Persons suffering from asthma, eczema or skin problems should EC No 219-799-4 ◀ avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.' 2. By way of derogation, paragraph 1(a) shall not apply to hot melt adhesives.

57. Cyclohexane

CAS No 110-82-7

EC No 203-806-2

- 1. Shall not be placed on the market for the first time after 27 June 2010, for supply to the general public, as a constituent of neoprene-based contact adhesives in concentrations equal to or greater than 0,1 % by weight in package sizes greater than 350 g.
- 2. Neoprene-based contact adhesives containing cyclohexane and not conforming to paragraph 1 shall not be placed on the market for supply to the general public after 27 December 2010.
- 3. Without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that neoprenebased contact adhesives containing cyclohexane in concentrations equal to or greater than 0,1 % by weight that are placed on the market for supply to the general public after 27 December 2010 are visibly, legibly and indelibly marked as follows:
- This product is not to be used under conditions of poor ventilation.

	— This product is not to be used for carpet laying.'.	
58. Ammonium nitrate (AN)	Shall not be placed on the market for the first time after 27 June	
CAS No 6484-52-2	2010 as a substance, or in mixtures that contain more than 28 % by	
EC No 229-347-8	weight of nitrogen in relation to ammonium nitrate, for use as a solid	
2010 220 047 0	fertiliser, straight or compound, unless the fertiliser complies with the	
	technical provisions for ammonium nitrate fertilisers of high nitrogen	
	content set out in Annex III to Regulation (EC) No 2003/2003 of the	
	European Parliament and of the Council (*¹0). ►M54 ◀	

59. Dichloromethane

CAS No 75-09-2

EC No: 200-838-9

- 1. Paint strippers containing dichloromethane in a concentration equal to or greater than 0,1 % by weight shall not be:
- (a) placed on the market for the first time for supply to the general public or to professionals after 6 December 2010;
- (b) placed on the market for supply to the general public or to professionals after 6 December 2011;
- (c) used by professionals after 6 June 2012.

For the purposes of this entry:

- (i) 'professional' means any natural or legal person, including workers and self-employed workers undertaking paint stripping in the course of their professional activity outside an industrial installation;
- (ii) 'industrial installation' means a facility used for paint stripping
- 2. By way of derogation from paragraph 1, Member States may allow on their territories and for certain activities the use, by specifically trained professionals, of paint strippers containing dichloromethane and may allow the placing on the market of such paint strippers for supply to those professionals.

Member States making use of this derogation shall define appropriate provisions for the protection of the health and safety of those professionals using paint strippers containing dichloromethane and shall inform the Commission thereof.

Those provisions shall include a requirement that a professional shall hold a certificate that is accepted by the Member State in which that professional operates, or provide other documentary evidence to that effect, or be otherwise approved by that Member State, so as to demonstrate proper training and competence to safely use paint strippers containing dichloromethane.

The Commission shall prepare a list of the Member States which have made use of the derogation in this paragraph and make it publicly available over the Internet.

- 3. A professional benefiting from the derogation referred to in paragraph 2 shall operate only in Member States which have made use of that derogation. The training referred to in paragraph 2 shall cover as a minimum:
- (a) awareness, evaluation and management of risks to health, including information on existing substitutes or processes, which under their conditions of use are less hazardous to the health and safety of workers;
- (b) use of adequate ventilation;
- (c) use of appropriate personal protective equipment that complies with Directive 89/686/EEC.

Employers and self-employed workers shall preferably replace dichloromethane with a chemical agent or process which, under its conditions of use, presents no risk, or a lower risk, to the health and safety of workers.

Professional shall apply all relevant safety measures in practice, including the use of personal protective equipment.

- 4. Without prejudice to other Community legislation on workers protection, paint strippers containing dichloromethane in concentrations equal to or greater than 0,1 % by weight may be used in industrial installations only if the following minimum conditions are met:
- (a) effective ventilation in all processing areas, in particular for the wet processing and the drying of stripped articles: local exhaust ventilation at strip tanks supplemented by forced ventilation in those areas, so as to minimise exposure and to ensure compliance, where technically feasible, with relevant occupational exposure limits;
- (b) measures to minimise evaporation from strip tanks comprising: lids for covering strip tanks except during loading and unloading; suitable loading and unloading arrangements for strip tanks; and wash tanks with water or brine to remove excess solvent after unloading;
- (c) measures for the safe handling of dichloromethane in strip tanks comprising: pumps and pipework for transferring paint stripper to and from strip tanks; and suitable arrangements for safe cleaning of tanks and removal of sludge;
- (d) personal protective equipment that complies with Directive 89/686/EEC comprising: suitable protective gloves, safety goggles and protective clothing; and appropriate respiratory protective equipment where compliance with relevant occupational exposure limits cannot be otherwise achieved;
- (e) adequate information, instruction and training for operators in the use of such equipment.
- 5. Without prejudice to other Community provisions concerning the classification, labelling and packaging of substances and mixtures, by 6

	December 2011 paint strippers containing dichloromethane in a concentration equal to or greater than 0,1 % by weight shall be visibly,
	legibly and indelibly marked as follows:
	'Restricted to industrial use and to professionals approved in certain EU
	Member States — verify where use is allowed.'
▼M12	
60. Acrylamide	Shall not be placed on the market or used as a substance or constituent
CAS No 79-06-1	of mixtures in a concentration, equal to or greater than 0,1 % by weight
	for grouting applications after 5 November 2012.
▼M16	
61. Dimethylfumarate (DMF)	Shall not be used in articles or any parts thereof in concentrations greater
CAS No 624-49-7	than 0,1 mg/kg.
EC 210-849-0	Articles or any parts thereof containing DMF in concentrations greater
	than 0,1 mg/kg shall not be placed on the market.
▼M20	
62.	Shall not be manufactured, placed on the market or used as
(a) Phenylmercury acetate	substances or in mixtures after 10 October 2017 if the concentration of
EC No: 200-532-5	mercury in the mixtures is equal to or greater than 0,01 % by weight.
CAS No: 62-38-4	2. Articles or any parts thereof containing one or more of these
(b) Phenylmercury propionate	substances shall not be placed on the market after 10 October 2017 if the concentration of mercury in the articles or any part thereof is equal
EC No: 203-094-3	to or greater than 0,01 % by weight.
CAS No: 103-27-5	
(c) Phenylmercury 2-ethylhexanoate	
EC No: 236-326-7	
CAS No: 13302-00-6	
(d) Phenylmercury octanoate	
EC No: -	
CAS No: 13864-38-5	
(e) Phenylmercury neodecanoate	
EC No: 247-783-7	
CAS No: 26545-49-3	
▼M18	<u> </u>
63. Lead	Shall not be placed on the market or used in any individual part of
CAS No 7439-92-1	jewellery articles if the concentration of lead (expressed as metal) in
EC No 231-100-4	such a part is equal to or greater than 0,05 % by weight.
and its compounds	2. For the purposes of paragraph 1:

- (i) 'jewellery articles' shall include jewellery and imitation jewellery articles and hair accessories, including:
- (a) bracelets, necklaces and rings;
- (b) piercing jewellery;
- (c) wrist watches and wrist-wear;
- (d) brooches and cufflinks;
- (ii) 'any individual part' shall include the materials from which the jewellery is made, as well as the individual components of the jewellery articles
- 3. Paragraph 1 shall also apply to individual parts when placed on the market or used for jewellery-making.
- 4. By way of derogation, paragraph 1 shall not apply to:
- (a) crystal glass as defined in Annex I (categories 1, 2, 3 and 4) to Council Directive 69/493/EEC (*14);
- (b) internal components of watch timepieces inaccessible to consumers:
- (c) non-synthetic or reconstructed precious and semiprecious stones (CN code 7103, as established by Regulation (EEC) No 2658/87), unless they have been treated with lead or its compounds or mixtures containing these substances;
- (d) enamels, defined as vitrifiable mixtures resulting from the fusion, vitrification or sintering of minerals melted at a temperature of at least 500 °C.
- 5. By way of derogation, paragraph 1 shall not apply to jewellery articles placed on the market for the first time before 9 October 2013 and jewellery articles produced before 10 December 1961. •M31
- 6. By 9 October 2017, the Commission shall re-evaluate paragraphs 1 to 5 of this entry in the light of new scientific information, including the availability of alternatives and the migration of lead from the articles referred to in paragraph 1 and, if appropriate, modify this entry accordingly. ◀►M31
- 7. Shall not be placed on the market or used in articles supplied to the general public, if the concentration of lead (expressed as metal) in those articles or accessible parts thereof is equal to or greater than 0,05 % by weight, and those articles or accessible parts thereof may, during normal or reasonably foreseeable conditions of use, be placed in the mouth by children.

That limit shall not apply where it can be demonstrated that the rate of lead release from such an article or any such accessible part of an article, whether coated or uncoated, does not exceed $0.05~\mu g/cm^2$ per hour (equivalent to $0.05~\mu g/g/h$), and, for coated articles, that the coating is sufficient to ensure that this release rate is not exceeded for a period of at least two years of normal or reasonably foreseeable conditions of use of the article.

For the purposes of this paragraph, it is considered that an article or

accessible part of an article may be placed in the mouth by children if it is smaller than 5 cm in one dimension or has a detachable or protruding part of that size.

- 8. By way of derogation, paragraph 7 shall not apply to:
- (a) jewellery articles covered by paragraph 1;
- (b) crystal glass as defined in Annex I (categories 1, 2, 3 and 4) to Directive 69/493/EEC:
- (c) non-synthetic or reconstructed precious and semi-precious stones
 (CN code 7103 as established by Regulation (EEC) No 2658/87)
 unless they have been treated with lead or its compounds or mixtures containing these substances;
- (d) enamels, defined as vitrifiable mixtures resulting from the fusion, vitrification or sintering of mineral melted at a temperature of at least 500 °C:
- (e) keys and locks, including padlocks;
- (f) musical instruments;
- (g) articles and parts of articles comprising brass alloys, if the concentration of lead (expressed as metal) in the brass alloy does not exceed 0,5 % by weight;
- (h) the tips of writing instruments;
- (i) religious articles;
- (j) portable zinc-carbon batteries and button cell batteries;
- (k) articles within the scope of:
- (i) Directive 94/62/EC;
- (ii) Regulation (EC) No 1935/2004;
- (iii) Directive 2009/48/EC of the European Parliament and of the Council (*15);
- (iv) Directive 2011/65/EU of the European Parliament and of the Council (*16)
- 9. By 1 July 2019, the Commission shall re-evaluate paragraphs 7 and 8(e), (f), (i) and (j) of this entry in the light of new scientific information, including the availability of alternatives and the migration of lead from the articles referred to in paragraph 7, including the requirement on coating integrity, and, if appropriate, modify this entry accordingly.
- By way of derogation paragraph 7 shall not apply to articles placed on the market for the first time before 1 June 2016. < ►M63
- 11. Doing either of the following acts after 15 February 2023 in or within 100 metres of wetlands is prohibited:
- (a) discharging gunshot containing a concentration of lead (expressed as metal) equal to or greater than 1 % by weight;
- (b) carrying any such gunshot where this occurs while out wetland shooting or as part of going wetland shooting.

For the purposes of the first subparagraph:

(a) 'within 100 metres of wetlands' means within 100 metres outward from any outer boundary point of a wetland;

- (b) 'wetland shooting' means shooting in or within 100 metres of wetlands;
- (c) if a person is found carrying gunshot in or within 100 metres of wetlands while out shooting or as part of going shooting, the shooting concerned shall be presumed to be wetland shooting unless that person can demonstrate that it was some other type of shooting. The restriction laid down in the first subparagraph shall not apply in a Member State if that Member State notifies the Commission in accordance with paragraph 12 that it intends to make use of the option granted by that paragraph.
- 12. If at least 20 % in total of the territory, excluding the territorial waters, of a Member State are wetlands, that Member State may, in place of the restriction laid down in the first subparagraph of paragraph 11, prohibit the following acts throughout the whole of its territory from 15 February 2024:
- (a) the placing on the market of gunshot containing a concentration of lead (expressed as metal) equal to or greater than 1 % by weight;
- (b) the discharging of any such gunshot;
- (c) carrying any such gunshot while out shooting or as part of going shooting.

Any Member State intending to make use of the option granted by the first subparagraph shall notify the Commission of this intention by 15 August 2021. The Member State shall communicate the text of the national measures adopted by it to the Commission without delay and in any event by 15 August 2023. The Commission shall make publicly available without delay any such notices of intention and texts of national measures received by it.

- 13. For the purposes of paragraphs 11 and 12:
- (a) 'wetlands' means areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed 6 metres;
- (b) 'gunshot' means pellets used or intended for use in a single charge or cartridge in a shotgun;
- (c) 'shotgun' means a smooth-bore gun, excluding airguns;
- (d) 'shooting' means any shooting with a shotgun;
- (e) 'carrying' means any carrying on the person or carrying or transporting by any other means;
- (f) in determining whether a person found with gunshot is carrying gunshot 'as part of going shooting':
- (i) regard shall be had to all the circumstances of the case;
- (ii) the person found with the gunshot need not necessarily be the same person as the person shooting.
- 14. Member States may maintain national provisions for protection of the environment or human health in force on 15 February 2021 and

restricting lead in gunshot more severely than provided for in paragraph 11.

The Member State shall communicate the text of those national provisions to the Commission without delay. The Commission shall make publicly available without delay any such texts of national provisions received by it.

M72

- 15. Shall not be placed on the market or used in articles produced from polymers or copolymers of vinyl chloride ('PVC'), if the concentration of lead is equal to or greater than 0,1 % by weight of the PVC material.
- 16. Paragraph 15 shall apply with effect from 29 November 2024.
- 17. By way of derogation, paragraph 15 shall not apply to PVC articles containing recovered flexible PVC until 28 May 2025.
- 18. By way of derogation, paragraph 15 shall not apply to the following PVC articles containing recovered rigid PVC until 28 May 2033, if the concentration of lead is lower than 1,5 % by weight of the recovered rigid PVC:
- (a) profiles and sheets for exterior applications in buildings and civil engineering works, excluding decks and terraces;
- (b) profiles and sheets for decks and terraces, provided that the recovered PVC is used in a middle layer and is entirely covered with a layer of PVC or other material for which the concentration of lead is lower than 0,1 % by weight;
- (c) profiles and sheets for use in concealed spaces or voids in buildings and civil engineering works (where they are inaccessible during normal use, excluding maintenance, for example, cable ducts);
- (d) profiles and sheets for interior building applications, provided that the entire surface of the profile or sheet facing the occupied areas of a building after installation is produced using PVC or other material for which the concentration of lead is lower than 0,1 % by weight;
- (e) multi-layer pipes (excluding pipes for drinking water), provided that the recovered PVC is used in a middle layer and is entirely covered with a layer of PVC or other material for which the concentration of lead is lower than 0,1 % by weight;
- (f) fittings, excluding fittings for pipes for drinking water.

From 28 May 2026, rigid PVC recovered from the categories of articles referred to in points (a) to (d) shall only be used for the production of new articles of any of those categories.

Suppliers of PVC articles containing recovered rigid PVC with a concentration of lead equal to or greater than 0,1 % by weight of the PVC material shall ensure, before placing those articles on the market, that they are visibly, legibly and indelibly marked with the statement: 'Contains \geq 0,1 % lead'. Where the marking cannot be provided on the article due to the nature of the article, it shall be on the packaging of the article.

Suppliers of PVC articles containing recovered rigid PVC shall submit to national enforcement authorities upon request documentary evidence to substantiate the claims on the recovered origin of the PVC in those articles. Certificates issued by schemes to provide proof of traceability and recycled content, such as those developed according to EN 15343:2007 or equivalent recognised standards, may be used to substantiate such claims for PVC articles produced in the Union. Claims made on the recovered origin of the PVC in imported articles shall be accompanied by a certificate that provides equivalent proof of traceability and recycled content, issued by an independent third party. By 28 May 2028, the Commission shall review this paragraph in light of new scientific information and, if appropriate, modify it accordingly.

- 19. By way of derogation, paragraph 15 shall not apply to:
- (a) PVC-silica separators in lead acid batteries, until 28 May 2033;
- (b) articles covered by paragraph 1, in accordance with paragraphs 2 to 5, and by paragraph 7 in accordance with paragraphs 8 and 10;
- (c) articles within the scope of:
- (i) Regulation (EC) No 1935/2004;
- (ii) Directive 2011/65/EU;
- (iii) Directive 94/62/EC;
- (iv) Directive 2009/48/EC.
- 20. By way of derogation, paragraph 15 shall not apply to PVC articles placed on the market until 28 November 2024. ◀

▼M27

64. 1,4-dichlorobenzene

CAS No 106-46-7

EC No 203-400-5

Shall not be placed on the market or used, as a substance or as a constituent of mixtures in a concentration equal to or greater than 1 % by weight, where the substance or the mixture is placed on the market for use or used as an air freshener or deodoriser in toilets, homes, offices or other indoor public areas.

▼M38

65. Inorganic ammonium salts

1. Shall not be placed on the market, or used, in cellulose insulation mixtures or cellulose insulation articles after 14 July 2018 unless the emission of ammonia from those mixtures or articles results in a concentration of less than 3 ppm by volume (2,12 mg/m³) under the test conditions specified in paragraph 4.

A supplier of a cellulose insulation mixture containing inorganic ammonium salts shall inform the recipient or consumer of the maximum permissible loading rate of the cellulose insulation mixture, expressed in thickness and density.

A downstream user of a cellulose insulation mixture containing inorganic ammonium salts shall ensure that the maximum permissible loading rate communicated by the supplier is not exceeded.

- 2. By way of derogation, paragraph 1 shall not apply to placing on the market of cellulose insulation mixtures intended to be used solely for the production of cellulose insulation articles, or to the use of those mixtures in the production of cellulose insulation articles.
- 3. In the case of a Member State that, on 14 July 2016, has national provisional measures in place that have been authorised by the Commission pursuant to Article 129(2)(a), the provisions of paragraphs 1 and 2 shall apply from that date.
- 4. Compliance with the emission limit specified in the first subparagraph of paragraph 1 shall be demonstrated in accordance with Technical Specification CEN/TS 16516, adapted as follows:
- (a) the duration of the test shall be at least 14 days instead of 28 days;
- (b) the ammonia gas emission shall be measured at least once per day throughout the test;
- (c) the emission limit shall not be reached or exceeded in any measurement taken during the test;
- (d) the relative humidity shall be 90 % instead of 50 %;
- (e) an appropriate method to measure the ammonia gas emission shall be used;
- (f) the loading rate, expressed in thickness and density, shall be recorded during the sampling of the cellulose insulation mixtures or articles to be tested.

66. Bisphenol A

CAS No 80-05-7

EC No 201-245-8

Shall not be placed on the market in thermal paper in a concentration equal to or greater than 0,02 % by weight after 2 January 2020.

▼M61 -

▼M66

68. Linear and branched perfluorocarboxylic acids of the formula C_nF_{2n+1}-1. Shall not be manufactured, or placed on the market as substances C(= O)OH where n = 8, 9, 10, 11, 12, or 13 (C9-C14 PFCAs),

including their salts, and any combinations thereof;

Any C9-C14 PFCA-related substance having a perfluoro group with the in: formula C_nF_{2n+1} - directly attached to another carbon atom, where n = 8, 9, 10, 11, 12, or 13, including their salts and any combinations thereof;

Any C9-C14 PFCA-related substance having a perfluoro group with the formula C_nF_{2n+1}- that it is not directly attached to another carbon atom, where n = 9, 10, 11, 12, 13 or 14 as one of the structural elements, including their salts and any combinations thereof.

- on their own from 25 February 2023.
- 2. Shall not, from 25 February 2023, be used in, or placed on the market
- (a) another substance, as a constituent;
- (b) a mixture;
- (c) an article,

The following substances are excluded from this designation

- C_nF_{2n+1} -X, where X = F, CI, or Br
- where n = 9, 10, 11, 12, 13 or 14, including any combinations thereof,
- C_nF_{2n+1} -C(= O)OX' where n> 13 and X'=any group, including salts

except if the concentration in the substance, the mixture, or the article is below 25 ppb for the sum of C9-C14 PFCAs and their salts or 260 ppb for the sum of C9-C14 PFCA-related substances.

- 3. By way of derogation to paragraph 2, the concentration limit shall be 10 ppm for the sum of C9-C14 PFCAs, their salts and C9-C14 PFCA related substances, where they are present in a substance to be used as a transported isolated intermediate, provided that the conditions in points (a) to (f) of Article 18(4) of this Regulation are met for the manufacturing of fluorochemicals with a perfluoro carbon chain length equal to or shorter than 6 atoms. The Commission shall review this limit no later than 25 August 2023.
- 4. Paragraph 2 shall apply from 4 July 2023 to:
- (i) textiles for oil- and water-repellency for the protection of workers from dangerous liquids that comprise risks to their health and safety;
- (ii) the manufacture of polytetrafluoroethylene (PTFE) and polyvinylidene fluoride (PVDF) for the production of:
 - high performance, corrosion resistant gas filter membranes, water filter membranes and membranes for medical textiles;
 - industrial waste heat exchanger equipment;
 - industrial sealants capable of preventing leakage of volatile organic compounds and PM _{2,5} particulates
- 5. By way of derogation to paragraph 2, the use of C9-C14 PFCAs, their salts and C9-C14 PFCA-related substances shall be allowed until 4 July 2025 for:
- (i) photolithography or etch processes in semiconductor manufacturing;
- (ii) photographic coatings applied to films;
- (iii) invasive and implantable medical devices;
- (iv) fire-fighting foam for liquid fuel vapour suppression and liquid fuel fire (Class B fires) already installed in systems, including both mobile and fixed systems, subject to the following conditions:
 - fire-fighting foam that contains or may contain C9-C14 PFCAs, their salts and C9-C14 PFCA-related substances shall not be used for training;
 - fire-fighting foam that contains or may contain C9-C14 PFCAs, their salts and C9-C14 PFCA-related substances shall not be used for testing unless all releases are contained;
 - from 1 January 2023, uses of fire-fighting foam that contains or may contain C9-C14 PFCAs, their salts and C9-C14 PFCArelated substances shall only be allowed to sites where all releases can be contained;

- fire-fighting foam stockpiles that contain or may contain C9-C14 PFCAs, their salts and C9-C14 PFCA-related substances shall be managed in accordance with Article 5 of Regulation (EU) 2019/1021.
- Paragraph 2(c) shall not apply to articles placed on the market before 25 February 2023.
- 7. Paragraph 2 shall not apply to the can coating for pressurised metered-dose inhalers until 25 August 2028.
- 8. Paragraph 2 (c) shall apply from 31 December 2023 to:
- (a) semiconductors on their own;
- (b) semiconductors incorporated in semi-finished and finished electronic equipment.
- 9. Paragraph 2(c) shall apply from 31 December 2030 to semiconductors used in spare or replacement parts for finished electronic equipment placed on the market before 31 December 2023.
- 10. ►C9 Until 25 August 2024, the concentration limit referred to in paragraph 2 shall be 2 000 ppb for the sum of C9-C14 PFCAs in fluoroplastics and fluoroelastomers that contain perfluoroalkoxy groups. From 26 August 2024, the concentration limit shall be 100 ppb for the sum of C9-C14 PFCAs in fluoroplastics and fluoroelastomers that contain perfluoroalkoxy groups. ◄ All emissions of C9-C14 PFCAs during the manufacture and use of fluoroplastics and fluoroelastomers that contain perfluoroalkoxy groups shall be avoided and, if not possible, reduced as far as technically and practically possible. This derogation shall not apply to articles referred to in paragraph 2(c). The Commission shall review this derogation no later than 25 August 2024.
- 11. The concentration limit referred to in paragraph 2 shall be 1 000 ppb for the sum of C9-C14 PFCAs, where these are present in PTFE micro powders produced by ionising irradiation or by thermal degradation, as well as in mixtures and articles for industrial and professional uses containing PTFE micro powders. All emissions of C9-C14 PFCAs during the manufacture and use of PTFE micro powders shall be avoided and, if not possible, reduced as far as technically and practically possible. The Commission shall review this derogation no later than 25 August 2024.
- 12. For the purposes of this entry, C9-C14 PFCA-related substances are substances that, based on their molecular structure, are considered to have the potential to degrade or be transformed to C9-C14 PFCAs.

▼C6

69. Methanol

CAS No 67-56-1

EC No 200-659-6

Shall not be placed on the market to the general public after 9 May 2019 in windscreen washing or defrosting fluids, in a concentration equal to or greater than 0,6 % by weight.

70. Octamethylcyclotetrasiloxane (D4)

CAS No 556-67-2

EC No 209-136-7

Decamethylcyclopentasiloxane (D5)

CAS No 541-02-6

EC No 208-764-9

- 1. Shall not be placed on the market in wash-off cosmetic products in a concentration equal to or greater than 0,1 % by weight of either substance, after 31 January 2020.
- For the purposes of this entry, 'wash-off cosmetic products' means cosmetic products as defined in Article 2(1)(a) of Regulation (EC) No 1223/2009 that, under normal conditions of use, are washed off with water after application.

▼M47

71. 1-methyl-2-pyrrolidone

(NMP)

CAS No 872-50-4

EC No 212-828-1

- 1. Shall not be placed on the market as a substance on its own or in mixtures in a concentration equal to or greater than 0,3 % after 9 May 2020 unless manufacturers, importers and downstream users have included in the relevant chemical safety reports and safety data sheets, Derived No-Effect Levels (DNELs) relating to exposure of workers of 14,4 mg/m³ for exposure by inhalation and 4,8 mg/kg/day for dermal exposure.
- 2. Shall not be manufactured, or used, as a substance on its own or in mixtures in a concentration equal to or greater than 0,3 % after 9 May 2020 unless manufacturers and downstream users take the appropriate risk management measures and provide the appropriate operational conditions to ensure that exposure of workers is below the DNELs specified in paragraph 1.
- 3. By way of derogation from paragraphs 1 and 2, the obligations laid down therein shall apply from 9 May 2024 in relation to placing on the market for use, or use, as a solvent or reactant in the process of coating wires.

▼M50

72. The substances listed in column 1 of the Table in Appendix 12

- 1. Shall not be placed on the market after 1 November 2020 in any of the following:
- (a) clothing or related accessories;
- (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;
- (c) footwear;

if the clothing, related accessory, textile other than clothing or footwear is for use by consumers and the substance is present in a concentration, measured in homogeneous material, equal to or greater than that specified for that substance in Appendix 12.

2. By way of derogation, in relation to the placing on the market of formaldehyde [CAS No 50-00-0] in jackets, coats or upholstery, the

relevant concentration for the purposes of paragraph 1 shall be 300 mg/kg during the period between 1 November 2020 and 1 November 2023. The concentration specified in Appendix 12 shall apply thereafter.

- 3. Paragraph 1 shall not apply to:
- (a) clothing, related accessories or footwear, or parts of clothing, related accessories or footwear, made exclusively of natural leather, fur or hide;
- (b) non-textile fasteners and non-textile decorative attachments;
- (c) second-hand clothing, related accessories, textiles other than clothing or footwear
- (d) wall-to-wall carpets and textile floor coverings for indoor use, rugs and runners.
- 4. Paragraph 1 shall not apply to clothing, related accessories, textiles other than clothing, or footwear within the scope of Regulation (EU) 2016/425 of the European Parliament and of the Council (*) or Regulation (EU) 2017/745 of the European Parliament and of the Council (**).
- 5. Paragraph 1(b) shall not apply to disposable textiles. 'Disposable textiles' means textiles that are designed to be used only once or for a limited time and are not intended for subsequent use for the same or a similar purpose.
- Paragraphs 1 and 2 shall apply without prejudice to the application of any stricter restrictions set out in this Annex or in other applicable Union legislation.
- The Commission shall review the exemption in paragraph 3(d) and, if appropriate, modify that point accordingly.
- (*) Regulation (EU) 2016/425 of the European Parliament and of the Council of of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (OJ L 81, 31.3.2016, p. 51).
- (**) Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Council Directives 90/385/EEC and 93/42/EEC (OJ L 117, 5.5.2017, p. 1).

▼M53

73. (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) silanetriol

Any of its mono-, di- or tri-O-(alkyl) derivatives (TDFAs)

1. Shall not be placed on the market for supply to the general public after 2 January 2021 individually or in any combination, in a concentration equal to or greater than 2 ppb by weight of the mixtures containing organic solvents, in spray products.

- For the purpose of this entry, 'spray products' means aerosol dispensers, pump sprays, trigger sprays, marketed for proofing or impregnation spray applications.
- 3. Without prejudice to the implementation of other Union provisions concerning the classification, packaging and labelling of substances and mixtures, the packaging of spray products containing (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) silanetriol and/or TDFAs combined with organic solvents as referred to in paragraph 1 and placed on the market for professional use shall be marked clearly and indelibly: 'for professional users only' and 'Fatal if inhaled' with the pictogram GHS06.
- 4. Section 2.3 of Safety Data Sheets shall contain the following information: 'mixtures of (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) silanetriol and/or any of its mono-, di- or tri-O-(alkyl) derivatives in a concentration equal to or greater than 2 ppb and organic solvents in spray products, are for professional users only and marked "Fatal if inhaled".
- Organic solvents referred to in paragraph 1, 3, and 4 include organic solvents used as aerosol propellants.

74. Diisocyanates, O = C=N-R-N = C=O, with R an aliphatic or aromatic hydrocarbon unit of unspecified length

- Shall not be used as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 August 2023, unless:
- (a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or
- (b) the employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture(s).
- 2. Shall not be placed on the market as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 February 2022, unless:
- (a) the concentration of diisocyanates individually and in combination is less than $0.1\ \%$ by weight, or
- (b) the supplier ensures that the recipient of the substance(s) or mixture(s) is provided with information on the requirements referred to in point (b) of paragraph 1 and the following statement is placed on the packaging, in a manner that is visibly distinct from the rest of the label information: 'As from 24 August 2023 adequate training is required before industrial or professional use'.

- 3. For the purpose of this entry 'industrial and professional user(s)' means any worker or self-employed worker handling diisocyanates on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) or supervising these tasks.
- 4. The training referred to in point (b) of paragraph 1 shall include the instructions for the control of dermal and inhalation exposure to diisocyanates at the workplace without prejudice to any national occupational exposure limit value or other appropriate risk management measures at national level. Such training shall be conducted by an expert on occupational safety and health with competence acquired by relevant vocational training. That training shall cover as a minimum:
- (a) the training elements in point (a) of paragraph 5 for all industrial and professional use(s).
- (b) the training elements in points (a) and (b) of paragraph 5 for the following uses:
 - handling open mixtures at ambient temperature (including foam tunnels);
 - spraying in a ventilated booth;
 - application by roller;
 - application by brush;
 - application by dipping and pouring;
 - mechanical post treatment (e.g. cutting) of not fully cured articles which are not warm anymore;
 - cleaning and waste;
 - any other uses with similar exposure through the dermal and/or inhalation route:
- (c) the training elements in points (a), (b) and (c) of paragraph 5 for the following uses:
 - handling incompletely cured articles (e.g. freshly cured, still warm);
 - foundry applications;
 - maintenance and repair that needs access to equipment;
 - open handling of warm or hot formulations (> 45 °C);
 - spraying in open air, with limited or only natural ventilation (includes large industry working halls) and spraying with high energy (e.g. foams, elastomers);
 - and any other uses with similar exposure through the dermal and/or inhalation route.
- 5. Training elements:
- (a) general training, including on-line training, on:

— chemistry of diisocyanates;
toxicity hazards (including acute toxicity);
— exposure to diisocyanates;
— occupational exposure limit values;
— how sensitisation can develop;
— odour as indication of hazard;
— importance of volatility for risk;
 viscosity, temperature, and molecular weight of diisocyanates;
— personal hygiene;
 personal protective equipment needed, including practical instructions for its correct use and its limitations;
risk of dermal contact and inhalation exposure;
risk in relation to application process used;
skin and inhalation protection scheme;
— ventilation;
— cleaning, leakages, maintenance;
— discarding empty packaging;
— protection of bystanders;
 identification of critical handling stages;
specific national code systems (if applicable);
— behaviour-based safety;
 certification or documented proof that training has been successfully completed
(b) intermediate level training, including on-line training, on:
additional behaviour-based aspects;
— maintenance;
— management of change;
evaluation of existing safety instructions;
risk in relation to application process used;
 certification or documented proof that training has been successfully completed
(c) advanced training, including on-line training, on:
— any additional certification needed for the specific uses covered;
— spraying outside a spraying booth;
— open handling of hot or warm formulations (> 45 °C);
 certification or documented proof that training has been successfully completed

- 6. The training shall comply with the provisions set by the Member States in which the industrial or professional user(s) operate. Member States may implement or continue to apply their own national requirements for the use of the substance(s) or mixture(s), as long as the minimum requirements set out in paragraphs 4 and 5 are met.
- 7. The supplier referred to in point (b) of paragraph 2 shall ensure that the recipient is provided with training material and courses pursuant to paragraphs 4 and 5 in the official language(s) of the Member State(s) where the substance(s) or mixture(s) are supplied. The training shall take into consideration the specificity of the products supplied, including composition, packaging, and design.
- 8. The employer or self-employed shall document the successful completion of the training referred to in paragraphs 4 and 5. The training shall be renewed at least every five years.
- Member States shall include in their reports pursuant to Article 117(1) the following information:
- (a) any established training requirements and other risk management measures related to the industrial and professional uses of diisocyanates foreseen in national law;
- (b) the number of cases of reported and recognised occupational asthma and occupational respiratory and dermal diseases in relation to diisocyanates;
- (c) national exposure limits for diisocyanates, if there are any;
- (d) information about enforcement activities related to this restriction.
- 10. This restriction shall apply without prejudice to other Union legislation on the protection of safety and health of workers at the workplace.

75.

Substances falling within one or more of the following points:

- (a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008:
 - carcinogen category 1A, 1B or 2, or germ cell mutagen category
 1A, 1B or 2, but excluding any such substances classified due to
 effects only following exposure by inhalation
 - reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation
 - skin sensitiser category 1, 1A or 1B
 - skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2

- 1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
- (a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
- (b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;

- serious eye damage category 1 or eye irritant category 2
- (b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, European Parliament and of the Council (*22)
- (c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex

 (d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or
- (d) substances listed in Appendix 13 to this Annex.

The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.

- (c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
- (d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
- (i) 0,1 % by weight, if the substance is used solely as a pH regulator;
- (ii) 0,01 % by weight, in all other cases;
- (e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (*22), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
- (f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
- (i) 'Rinse-off products';
- (ii) 'Not to be used in products applied on mucous membranes';
- (iii) 'Not to be used in eye products';
- (g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
- (h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.
- 2. For the purposes of this entry use of a mixture 'for tattooing purposes' means injection or introduction of the mixture into a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
- 3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance

listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.

- 4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:
- (a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
- (b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
- 5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
- 6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
- 7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
- (a) the statement 'Mixture for use in tattoos or permanent make-up';
- (b) a reference number to uniquely identify the batch;
- (c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. 'Ingredient' means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the

meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;

- (d) the additional statement 'pH regulator' for substances falling under point (d)(i) of paragraph 1;
- (e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
- (f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
- (g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.

The information shall be clearly visible, easily legible and marked in a way that is indelible.

The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise.

Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use.

Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.

- Mixtures that do not contain the statement 'Mixture for use in tattoos or permanent make-up' shall not be used for tattooing purposes.
- 9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).
- 10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

▼M67

76.

N, N-dimethylformamide

CAS No 68-12-2

EC. No 200-679-5

- 1. Shall not be placed on the market as a substance on its own, as a constituent of other substances, or in mixtures in a concentration equal to or greater than 0,3 % after 12 December 2023 unless manufacturers, importers and downstream users have included in the relevant chemical safety reports and safety data sheets, Derived No-Effect Levels (DNELs) relating to exposure of workers of 6 mg/m³ for exposure by inhalation and 1,1 mg/kg/day for dermal exposure.
- 2. Shall not be manufactured, or used, as a substance on its own, as a constituent of other substances, or in mixtures in a concentration equal to or greater than 0,3 % after 12 December 2023 unless manufacturers and downstream users take the appropriate risk management measures and provide the appropriate operational conditions to ensure that exposure of workers is below the DNELs specified in paragraph 1.
- 3. By way of derogation from paragraphs 1 and 2, the obligations laid down therein shall apply from 12 December 2024 in relation to placing on the market for use, or use, as a solvent in direct or transfer polyurethane coating processes of textiles and paper material or the production of polyurethane membranes, and from 12 December 2025 in relation to placing on the market for use, or use, as a solvent in the dry and wet spinning processes of synthetic fibres.

▼M74

77. Formaldehyde

CAS No 50-00-0

EC No 200-001-8

and formaldehyde-releasing substances

- 1. Shall not be placed on the market in articles, after 6 August 2026, if, under the test conditions specified in Appendix 14, the concentration of formaldehyde released from those articles exceeds:
- (a) 0,062 mg/m³ for furniture and wood-based articles;
- (b) 0,080 mg/m³ for articles other than furniture and wood-based articles.

The first subparagraph shall not apply to:

- (a) articles in which formaldehyde or formaldehyde releasing substances are exclusively naturally present in the materials from which the articles are produced;
- (b) articles that are exclusively for outdoor use under foreseeable conditions;
- (c) articles in constructions, that are exclusively used outside the building shell and vapour barrier and that do not emit formaldehyde into indoor air;
- (d) articles exclusively for industrial or professional use unless formaldehyde released from them leads to exposure of the general public under foreseeable conditions of use;
- (e) articles for which the restriction laid down in entry 72 applies;

- (f) articles that are biocidal products within the scope of Regulation (EU)
 No 528/2012 of the European Parliament and of the Council (*23);
- (g) devices within the scope of Regulation (EU) 2017/745;
- (h) personal protective equipment within the scope of Regulation (EU) 2016/425;
- (i) articles intended to come into contact directly or indirectly with food within the scope of Regulation (EC) No 1935/2004;
- (j) second-hand articles.
- Shall not be placed on the market in road vehicles after 6 August 2027 if, under the test conditions specified in Appendix 14, the concentration of formaldehyde in the interior of those vehicles exceeds 0,062 mg/m³.

The first subparagraph shall not apply to:

- (a) road vehicles exclusively for industrial or professional use unless the concentration of formaldehyde in the interior of those vehicles leads to exposure of the general public under foreseeable conditions of use;
- (b) second-hand vehicles.

▼M75

- 78. Synthetic polymer microparticles:
- polymers that are solid and which fulfil both of the following conditions:
- (a) are contained in particles and constitute at least 1 % by weight of those particles; or build a continuous surface coating on particles;
- (b) at least 1 % by weight of the particles referred to in point (a) fulfil either of the following conditions:
- (i) all dimensions of the particles are equal to or less than 5 mm;
- (ii) the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.

The following polymers are excluded from this designation:

- (a) polymers that are the result of a polymerisation process that has taken place in nature, independently of the process through which they have been extracted, which are not chemically modified substances;
- (b) polymers that are degradable as proved in accordance with Appendix15;
- (c) polymers that have a solubility greater than 2 g/L as proved in 20 °C or less at a standard pressure of 101,3 kPa; accordance with Appendix 16;
- (d) polymers that do not contain carbon atoms in their chemical structure.

- 1. Shall not be placed on the market as substances on their own or, where the synthetic polymer microparticles are present to confer a sought-after characteristic, in mixtures in a concentration equal to or greater than 0,01 % by weight.
- 2. For the purposes of this entry, the following definitions apply:
- (a) 'particle' means a minute piece of matter, other than single molecules, with defined physical boundaries;
- (b) 'solid' means a substance or mixture other than a liquid or gas;
- (c) 'gas' means a substance or mixture which at 50 °C has a vapour pressure greater than 300 kPa (absolute), or is completely gaseous at 20 °C at a standard pressure of 101,3 kPa;
- (d) 'liquid' means a substance or mixture that meets any of the following conditions:
- (i) the substance or mixture at 50 °C has a vapour pressure of not more than 300 kPa, is not completely gaseous at 20 °C and at a standard pressure of 101,3 kPa, and has a melting point or initial melting point of 20 °C or less at a standard pressure of 101,3 kPa;
- (ii) the substance or mixture fulfils the criteria in the American Society for Testing and Materials (ASTM) D 4359-90 Standard Test Method for Determining Whether a Material Is a Liquid or a Solid;

- (iii) the substance or mixture passes the fluidity test (penetrometer test) described in chapter 2.3.4 of Part 2 of Annex A to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) concluded at Geneva on 30 September 1957;
- (e) 'make-up product' means any substance or mixture intended to be placed in contact with specific external parts of the human body, namely the epidermis, eye brows and eye lashes, with a view to, exclusively or mainly, changing their appearance;
- 3. Where the concentration of synthetic polymer microparticles covered by this entry cannot be determined by available analytical methods or accompanying documentation, in order to verify the compliance with the concentration limit referred to in paragraph 1, only the particles of at least the following size shall be taken into account:
- (a) $0.1~\mu m$ for any dimension, for particles where all dimensions are equal to or smaller than 5 mm;
- (b) 0,3 μm in length, for particles that have a length that is equal to or smaller than 15 mm and a length to diameter ratio greater than 3.
- 4. Paragraph 1 shall not apply to the placing on the market of:
- (a) synthetic polymer microparticles, as substances on their own or in mixtures, for use at industrial sites;
- (b) medicinal products within the scope of Directive 2001/83/EC and veterinary medicinal products within the scope of Regulation (EU) 2019/6 of the European Parliament and of the Council (*24);
- (c) EU fertilising products within the scope of Regulation (EU) 2019/1009 of the European Parliament and of the Council (*25);
- (d) food additives within the scope of Regulation (EC) No 1333/2008 of the European Parliament and of the Council (*26);
- (e) in vitro diagnostic devices, including devices within the scope of Regulation (EU) 2017/746 of the European Parliament and of the Council (*27);
- (f) food within the meaning of Article 2 of Regulation (EC) No 178/2002, not covered by point (d) of this paragraph, and feed as defined in Article 3(4) of that Regulation.
- 5. Paragraph 1 shall not apply to the placing on the market of the following synthetic polymer microparticles, as substances on their own or in mixtures:
- (a) synthetic polymer microparticles which are contained by technical means so that releases to the environment are prevented when used in accordance with the instructions for use during the intended end use;

- (b) synthetic polymer microparticles the physical properties of which are permanently modified during intended end use in such a way that the polymer no longer falls within the scope of this entry;
- (c) synthetic polymer microparticles which are permanently incorporated into a solid matrix during intended end use.
- 6. Paragraph 1 shall apply as follows regarding the following uses:
- (a) from 17 October 2029 to synthetic polymer microparticles for use in the encapsulation of fragrances;
- (b) from 17 October 2027 for 'rinse-off products' as defined in point (1)(a) of the Preamble to Annexes II to VI to Regulation (EC) No 1223/2009 unless such products are covered by point (a) of this paragraph or contain synthetic polymer microparticles for use as an abrasive, i.e. namely to exfoliate, polish or clean ('microbeads');
- (c) from 17 October 2035 for lip products as defined in point (1)(e) of the Preamble to Annexes II to VI to Regulation (EC) No 1223/2009, nail products as defined in point (1)(g) of the Preamble to Annexes II to VI to that Regulation, and make-up products within the scope of that Regulation, unless such products are covered by points (a) or (b) of this paragraph or contain microbeads;
- (d) from 17 October 2029 for leave-on products, as defined in point (1)(b) of the Preamble to Annexes II to VI to Regulation (EC) No 1223/2009, unless such products are covered by points (a) or (c) of this paragraph;
- (e) from 17 October 2028 for detergents, as defined in Article 2(1) of Regulation (EC) No 648/2004, waxes, polishes and air care products, unless those products are covered by point (a) of this paragraph or contain microbeads:
- (f) from 17 October 2029 for 'devices', within the scope of Regulation (EU) 2017/745 of the European Parliament and of the Council (*28), unless those devices contain microbeads;
- (g) from 17 October 2028 for 'fertilising products', as defined in Article 2, point (1), of Regulation (EU) 2019/1009, which do not fall within the scope of that Regulation;
- (h) from 17 October 2031 for plant protection products within the meaning of Article 2(1) of Regulation (EC) No 1107/2009 of the European Parliament and of the Council (*29) and seeds treated with those products, and biocidal products as defined in Article 3(1), point (a), of Regulation (EU) No 528/2012 of the European Parliament and of the Council (*23);
- (i) from 17 October 2028 for products for agricultural and horticultural uses not covered by points (g) or (h);

- (j) from 17 October 2031 for granular infill for use on synthetic sports surfaces.
- 7. From 17 October 2025 suppliers of synthetic polymer microparticles referred to in paragraph 4, point (a), shall provide the following information:
- (a) instructions for use and disposal explaining to industrial downstream users how to prevent releases of synthetic polymer microparticles to the environment;
- (b) the following statement: 'The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council';
- (c) the information on quantity or, as applicable, concentration of synthetic polymer microparticles in the substance or mixture;
- (d) generic information on the identity of the polymers contained in the substance or mixture that enables manufacturers, industrial downstream users and other suppliers to comply with their obligations laid down in paragraphs 11 and 12.
- 8. From 17 October 2026 suppliers of products containing synthetic polymer microparticles referred to in paragraph 4, point (e), and from 17 October 2025 suppliers of products containing synthetic polymer microparticles referred to in paragraph 4, point (d), and paragraph 5, shall provide instructions for use and disposal explaining to professional users and the general public how to prevent releases of synthetic polymer microparticles to the environment.
- 9. From 17 October 2031 until 16 October 2035 suppliers of products referred to in paragraph 6, point (c), containing synthetic polymer microparticles shall provide the following statement: 'This product contains microplastics.' However, products placed on the market before 17 October 2031 are not required to bear that statement until 17 December 2031.
- 10. The information referred to in paragraphs 7, 8 and 9 shall be provided in the form of clearly visible, legible and indelible text or, where appropriate regarding the information in paragraphs 7 and 8, in the form of pictograms. The text or pictograms shall be placed on the label, the packaging, or the package leaflet of the products containing synthetic polymer microparticles or, regarding the information in paragraph 7, on the safety data sheet. In addition to the text or pictograms, suppliers may provide a digital tool that gives access to an electronic version of that information.

Where instructions for use and disposal are provided in accordance with paragraphs 7, 8 and 9 in the form of a text, they shall be in the official

languages of the Member States where the substance or mixture is placed on the market, unless the Member States concerned provide otherwise.

- 11. Starting from 2026 manufacturers and industrial downstream users of synthetic polymer microparticles in the form of pellets, flakes, and powders used as feedstock in plastic manufacturing at industrial sites, and, starting from 2027, other manufacturers of synthetic polymer microparticles and other industrial downstream users using synthetic polymer microparticles at industrial sites shall submit the following information to the Agency by 31 May of each year:
- (a) a description of the uses of synthetic polymer microparticles in the previous calendar year;
- (b) for each use of synthetic polymer microparticles, generic information on the identity of the polymers used;
- (c) for each use of synthetic polymer microparticles, an estimate of the quantity of synthetic polymer microparticles released to the environment in the previous calendar year, which shall include also the quantity of synthetic polymer microparticles released to the environment during transportation.
- (d) for each use of synthetic polymer microparticles, a reference to the derogation laid down in paragraph 4, point (a).
- 12. From 2027, suppliers of products containing synthetic polymer microparticles referred to in paragraphs 4, points (b), (d) and (e), and paragraph 5, placed on the market for the first time to professional users and the general public, shall submit the following information to the Agency by 31 May of each year:
- (a) a description of the end uses for which the synthetic polymer microparticles were placed on the market in the previous calendar year;
- (b) for each end use for which the synthetic polymer microparticles were placed on the market, generic information on the identity of the polymers placed on the market in the previous calendar year;
- (c) for each end use for which the synthetic polymer microparticles were placed on the market, an estimate of the quantity of synthetic polymer microparticles released to the environment in the previous calendar year, which shall include also the quantity of synthetic polymer microparticles released to the environment during transportation.
- (d) for each use of synthetic polymer microparticles, a reference to the applicable derogation or derogations laid down in paragraph 4, point (b),(d) or (e), or 5 point (a), (b) or (c).
- 13. The Agency shall make the information submitted under paragraphs11 and 12 available to the Member States.

14. Manufacturers, importers and industrial downstream users of products containing synthetic polymer microparticles shall provide specific information on the identity of polymers covered by this entry contained in those products and the function of those polymers in the products to competent authorities upon their request. The specific information on the polymer identity shall be sufficient to unequivocally identify polymers and shall at least include the information laid down in points 2.1 to 2.2.3 and points 2.3.5, 2.3.6 and 2.3.7 of Annex VI, where applicable.

If the information is not available to industrial downstream users, they shall request it from their supplier within 7 days from the receipt of the request from the competent authorities and shall inform the authorities of the request made without delay.

Having received the request referred to in the second subparagraph, the suppliers shall provide the requested information within 30 days to the industrial downstream user or directly to the competent authority requesting it.

Where the supplier provides the information to the industrial downstream user, the industrial downstream user shall forward that information to the competent authorities without delay.

Where the supplier provides the information directly to the authority, it shall without delay inform the industrial downstream user concerned to that effect.

- 15. Manufacturers, importers and industrial downstream users of products containing polymers claimed to be excluded from the designation of synthetic polymer microparticles on grounds of degradability or solubility shall provide, without delay, information proving that those polymers are degradable in accordance with Appendix 15 or soluble in accordance with Appendix 16, as applicable, to competent authorities upon their request.
- 16. Paragraph 1 shall not apply to placing on the market of synthetic polymers microparticles, on their own or in mixtures, placed on the market before 17 October 2023.

However, the first subparagraph shall not apply to the placing on the market of synthetic polymers microparticles for uses listed in paragraph 6.

Table 4. Polycyclic-aromatic hydrocarbons (PAHs)

	Tuble Wildjejelle ul'olliude lijul'ocul bolis (1 11115)				
No	Substance	CAS No.	Threshold		
1	Benzo[a]pyrene (BaP); benzo[d,e,f]chrysene	50-32-8	>1 mg/kg		
2	Benzo[e]pyrene (BeP)	192-97-2	>1 mg/kg		
3	Benzo[a]anthracene (BaA)	56-55-3	>1 mg/kg		
4	Benzo[b]fluoranthene (BbFA); benzo[e]acephenanthrylene	205-99-2	>1 mg/kg		

5	Benzo[j]fluoranthene (BjFA)	205-82-3	>1 mg/kg
6	Benzo[k]fluoranthene (BkFA)	207-08-9	>1 mg/kg
7	7 Chrysen (CHR) 218-01-9 >1 mg/kg		>1 mg/kg
8	8 Dibenzo[a,h]anthracene (DBAhA) 53-70-3 >1 mg/kg		>1 mg/kg
9 Benzo[ghi]perylene 191-24-2		>1 mg/kg	
10	Indeno[1,2,3-cd]pyrene	193-39-5	>1 mg/kg
11	Naphthalene	91-20-3	>10 mg/kg
12	Acenaphthene	83-32-9	
13	Acenaphthylene	208-96-8	
14	Anthracene	120-12-7	
15	Fluoranthene	206-44-0	Sum of No.12 - No.18 > 50 mg/kg
16	9H-Fluorene	86-73-7	
17	Phenanthrene	85-01-8	
18	Pyrene	129-00-0	

Revision Record of this appendix of Green Procurement Standard

Ver.	Establishment/	Revision Record of this appendix of Green 1 rocurement Standard	
		Reasons for revision and overview of changes	
1.0	2022.3.31	First issue separate "Chemical substance groups to be investigated" from the Green Procurement Standard as an appendix. Major Changes from the "Chemical substance groups to be investigated" in the 21st Edition of the Green Procurement Standard, are follows 1. Addition of banned substances: No.29-65 as Product parts, No.18-52 as Packaging parts for shipped products. 2. Changes of Substance name, Regulatory information, Examples of use, and prohibition level: No.3,6,8,14,16-19,27,28 as Product parts, No.4,7,9-12,14,16,17 Packaging parts for shipped products. 3. Delete reportable substances moved to banned substances: No.5,8,12 as Product parts. 4. Addition of tables of substance examples and detailed substance: No.2,55,57 as Product parts, No.3 as Packaging parts for shipped products.	
1.1	2022.12.20	Deleted the note "*Only when the OKI Group designates a substance group as a prohibited substance group." in No.55 of "Banned substance group for product parts". Added reference information on whether a substance is listed or not in chemSHERPA-AI	
2.0	2023.4.1	Addition of banned substances: PIP(3:1) and PFHxS as Product parts and Packaging parts for shipped products.	
3.0	2024.1.5	Addition of banned substances: DP and UV-328 as Product parts and Packaging parts for shipped products. Addition of reportable substances: MCCP, PFCA, and PFAS as Product parts and Packaging parts. The effective date of threshold values in REACH ANNEX 17 was changed to one year before the effective date in the official gazette. Revision of entry 63 (entry 15-20) and addition of entries 77 and 78 to the list of REACH ANNEX 17.	