

Banned Substances

- What are banned substances?

Chemical substances whose manufacture, use, etc. are prohibited by environmental laws and regulations. Depending on the application, use may be permitted.

- ◎ Substances listed are treated as “no intentional inclusion” but may be exempted by meeting specified conditions.
- ◎ If there are threshold values according to various laws and regulations, the minimum value among the threshold values specified for each condition is used.
- ◎ The percentage of ingredients contained is confirmed by chemSHERPA.
- ◎ For substances that have not yet been chemSHERPA compliant or have not yet been applied under the promulgated laws and regulations, please cooperate with us by submitting a written pledge.
- ◎ Even for chemSHERPA-compliant substances, we may ask you to submit a written pledge for certain reasons.

1. Japanese domestic laws and regulations

(1) Industrial Safety and Health Law Manufacturing prohibited substances (Article 55 of the Law, Article 16 of the Enforcement Order)

Industrial Safety and Health Act

<https://elaws.e-gov.go.jp/document?lawid=347AC0000000057> (Japanese)

<https://www.japaneselawtranslation.go.jp/ja/laws/view/3440> (For reference only, as it may not be the latest version.)

Order for Enforcement of Industrial Safety and Health Act

https://elaws.e-gov.go.jp/document?lawid=347CO0000000318_20230118_505CO0000000008 (Japanese)

<https://www.japaneselawtranslation.go.jp/ja/laws/view/3817> (For reference only, as it may not be the latest version.)

No.	Substance name	CAS No.	Threshold (ppm)	Related laws and regulations
1a	1	Yellow phosphorus match	-	Industrial Safety and Health Act
1a	2	Benzidine and its salts	92-87-5 (Typical)	
1a	3	4-aminodiphenyl and its salts	92-67-1 (Typical)	
1a	4	Asbestos ※1	Banned-1	
1a	5	4-nitrodiphenol and its salts	92-93-3 (Typical)	
1a	6	bis (chloromethyl) ether	542-88-1	
1a	7	beta-naphthylamine and its salts	91-59-8 (Typical)	
1a	8	Gum containing benzene, in which the volume of contained benzene exceeds 5 % of the solvent (including diluents) of the gum	-	

※1: Among natural minerals, a non-asbestos certificate or other documentation must be submitted for bluesite, vermiculite, talc, mica, and wollastonite.

(2) Chemical Investigation Law (Class I)

Act on the Regulation of Manufacture and Evaluation of Chemical Substances

https://www.meti.go.jp/policy/chemical_management/kasinhou/files/about/laws/laws_r03060110.pdf (Japanese)

<https://www.japaneselawtranslation.go.jp/ja/laws/view/3350> (For reference only, as it may not be the latest version.)

Order for Enforcement of the Act on the Regulation of Manufacture and Evaluation of Chemical Substances

https://www.meti.go.jp/policy/chemical_management/kasinhou/files/about/laws/laws_r03102220.pdf (Japanese)

<https://www.japaneselawtranslation.go.jp/ja/laws/view/3455> (For reference only, as it may not be the latest version.)

Class I Specified Chemical Substance List

No.	Substance name	Date of application
1	Polychlorinated biphenyls	June 10, 1974
2	Polychlorinated naphthalenes (limited to those containing two or more chlorine atoms)	August 20, 1979 (※1)
3	Hexachlorobenzene	
4	1, 2, 3, 4, 10, 10-hexachloro-1, 4, 4a, 5, 8, 8a-hexahydro-exo-1, 4-endo-5, 8-dimethanonaphthalene (also known as aldrin; referred to as “aldrin” in row (iii) of the table in Article 7)	
5	1, 2, 3, 4, 10, 10-hexachloro-6, 7-epoxy-1, 4, 4a, 5, 6, 7, 8, 8a-octahydro-exo-1, 4-endo-5, 8-dimethanonaphthalene (also known as dieldrin; referred to as “dieldrin” in row (iv) of the table in Article 7)	October 12, 1981
6	1, 2, 3, 4, 10, 10-hexachloro-6, 7-epoxy-1, 4, 4a, 5, 6, 7, 8, 8a-octahydro-endo-1, 4-endo-5, 8-dimethanonaphthalene (also known as endrin)	
7	1, 1, 1-trichloro-2, 2-bis (4-chlorophenyl) ethane (also known as DDT; referred to as “DDT” in row (iii) of the table in Article 7)	

8	1, 2, 4, 5, 6, 7, 8, 8-octachloro-2, 3, 3a, 4, 7, 7a-hexahydro-4, 7-methano-1H-indene, 1, 4, 5, 6, 7, 8, 8-heptachloro-3a, 4, 7, 7a-tetrahydro-4, 7-methano-1H-indene and their analogous compounds (also known as chlordane or heptachlor; referred to as "chlordanes" in row (v) of the table in Article 7)	September 17, 1986
9	Bis (tributyltin) oxide	January 6, 1990
10	N, N'-ditolyl-p-phenylenediamine, N-tolyl-N'-xylyl-p-phenylenediamine, or N, N'-dixylyl-p-phenylenediamine	January 6, 2001
11	2, 4, 6-tri-tert-butylphenol	
12	Polychloro-2, 2-dimethyl-3-methylidenebicyclo [2. 2. 1] heptane (also known as toxaphene)	September 4, 2002
13	Dodecachloropentacyclo [5. 3. 0. 0. 0. 0] decane (also known as mirex; referred to as "mirex" in row (ix) of the table in Article 7)	
14	2, 2, 2-trichloro-1-(2-chlorophenyl)-1-(4-chlorophenyl) ethanol, or 2, 2, 2-trichloro-1, 1-bis (4-chlorophenyl) ethanol (also known as kelthane or dicofol)	April 1, 2005 (※2)
15	Hexachlorobuta-1, 3-diene	
16	2-(2H-1, 2, 3-benzotriazol-2-yl)-4, 6-di-tert-butylphenol	November 10, 2007
17	Perfluoro (octane-1-sulfonic acid) (also known as PFOS; hereinafter referred to as "PFOS") or its salts	
18	Perfluoro (octane-1-sulfonyl) fluoride (also known as PFOSF)	
19	Pentachlorobenzene	
20	r-1, c-2, t-3, c-4, t-5, t-6-hexachlorocyclohexane (also known as alpha- hexachlorocyclohexane)	
21	r-1, t-2, c-3, t-4, c-5, t-6-hexachlorocyclohexane (also known as beta- hexachlorocyclohexane)	
22	r-1, c-2, t-3, c-4, c-5, t-6-hexachlorocyclohexane (also known as gamma- hexachlorocyclohexane)	
23	Decachloropentacyclo [5. 3. 0. 0(2, 6). 0(3, 9). 0(4, 8)] decan-5-one (also known as chlordecone)	April 1, 2010
24	Hexabromobiphenyl	
25	Tetrabromo (phenoxybenzene) (also known as tetrabromodiphenyl ether; referred to as "tetrabromodiphenyl ether" in row (xii) of the table in Article 7)	
26	Pentabromo (phenoxybenzene) (also known as pentabromodiphenyl ether; referred to as "pentabromodiphenyl ether" in row (xiii) of the table in Article 7)	
27	Hexabromo (phenoxybenzene) (also known as hexabromodiphenyl ether)	
28	Heptabromo (phenoxybenzene) (also known as heptabromodiphenyl ether)	
29	6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepin-3-oxide (also known as endosulfan or benzoepin)	May 1, 2014
30	Hexabromocyclododecane	
31	Pentachlorophenol or its salts or esters	April 1, 2016
32	Polychlorinated normal paraffin (limited those in which the carbon number is 10 through 13 and the content of chlorine is more than 48% of the total weight)	April 1, 2018
33	1,1'-oxybis (2,3,4,5,6-pentabromobenzene) (also known as decabromodiphenyl ether)	
34	Perfluorooctanoic acid (PFOA) and its salts	October 22, 2021

※1: The designation date for polychlorinated naphthalenes with a chlorine number of 2 is April 1, 2016.

※2: The designation date of 2,2,2-trichloro-1-(2-chlorophenyl)-1-(4-chlorophenyl) ethanol is October 22, 2021.

2. Europe/Americas

(1) RoHS restricted substances (Annex II)

RoHS Directive

https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive_en

Restricted substances (Annex II)

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32015L0863>

No.	Substance name	Threshold	Date of application (category 9)
1	Cadmium (Cd)	0.01wt%	July 22, 2019 (※1)
2	Lead (Pb)	0.1wt%	
3	Mercury (Hg)	0.1wt%	
4	Hexavalent chromium (Cr6+)	0.1wt%	
5	Polybrominated biphenyls (PBB)	0.1wt%	
6	Polybrominated diphenyl ethers (PBDE)	0.1wt%	
7	Bis (2-ethylhexyl) phthalate (DEHP)	0.1wt%	
8	Butyl benzyl phthalate (BBP)	0.1wt%	
9	Dibutyl phthalate (DBP)	0.1wt%	
10	Diisobutyl phthalate (DIBP)	0.1wt%	

※1: Applicable date for this case of RoHS 2 Directive; promulgated in June 2015 as 4 additional restricted substances (10 in total).

(2) Substances restricted under REACH (Annex XVII)

<https://echa.europa.eu/substances-restricted-under-reach>

No.	CAS No.	Substance name	Conditions of restriction	Latest amendments to the Conditions of restriction
1	–	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).	
2	75-01-4	Chloroethene (vinyl chloride)	Shall not be used as propellant in aerosols for any use. Aerosols dispensers containing the substance as propellant shall not be placed on the market.	
3	–	Liquid substances or mixtures 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.”	1. Shall not be used in: – ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: – can be used as fuel in decorative oil lamps for supply to the general public, and – present an aspiration hazard and are labelled with H304. 4. Decorative oil lamps for supply to the general public shall not be placed on the market”	Paragraph 4 shall not apply to: If they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).”
5	71-43-2	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.	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; (c) natural gas placed on the market for use by consumers, provided that the concentration of benzene remains below 0,1 % volume/volume.
6	12001-28-4 12172-73-5 77536-67-5 77536-66-4 77536-68-6 12001-29-5 132207-32-0	Asbestos fibres (a) Crocidolite (b) Amosite (c) Anthophyllite (d) Actinolite (e) Tremolite (f) Chrysotile	1. The manufacture, placing on the market and use of these fibres and of articles and mixtures containing these fibres added intentionally is prohibited.	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.
7	545-55-1	Tris(aziridinyl)phosphin oxide	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.	
8	59536-65-1	Polybromobiphenyls; Polybrominated biphenyls (PBB)	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.	
9	68990-67-0 – – 92-87-5 552-89-6 –	(a) Soap bark powder (<i>Quillaja saponaria</i>) and its derivatives containing saponines (b) Powder of the roots of <i>Helleborus viridis</i> and <i>Helleborus niger</i> (c) Powder of the roots of <i>Veratrum album</i> and <i>Veratrum nigrum</i> (d) Benzidine and/or its derivatives (e) o-Nitrobenzaldehyde (f) Wood powder	1. Shall not be used, in jokes and hoaxes or in mixtures or articles intended to be used as such, for instance as a constituent of sneezing powder and stink bombs. 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.	Paragraphs 1 and 2 shall not apply to stink bombs containing not more than 1,5 ml of liquid.

10	12135-76-1 12124-99-1 9080-17-5	(a) Ammonium sulphide (b) Ammonium hydrogen sulphide (c) Ammonium polysulphide	1. Shall not be used, in jokes and hoaxes or in mixtures or articles intended to be used as such, for instance as a constituent of sneezing powder and stink bombs. 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.	Paragraphs 1 and 2 shall not apply to stink bombs containing not more than 1,5 ml of liquid.
11	96-32-2 105-36-2 35223-80-4 18991-98-5	Volatile esters of bromoacetic acids (a) Methyl bromoacetate (b) Ethyl bromoacetate (c) Propyl bromoacetate (d) Butyl bromoacetate	1. Shall not be used, in jokes and hoaxes or in mixtures or articles intended to be used as such, for instance as a constituent of sneezing powder and stink bombs. 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.	Paragraphs 1 and 2 shall not apply to stink bombs containing not more than 1,5 ml of liquid.
12	91-59-8	2-Naphthylamine and its salts	Shall not be placed on the market, or used, as substances or in mixtures in concentrations greater than 0,1 % by weight.	
13	92-87-5	Benzidine and its salts	Shall not be placed on the market, or used, as substances or in mixtures in concentrations greater than 0,1 % by weight.	
14	92-93-3	4-Nitrobiphenyl	Shall not be placed on the market, or used, as substances or in mixtures in concentrations greater than 0,1 % by weight.	
15	92-67-1	4-Aminobiphenyl xenylamine and its salts	Shall not be placed on the market, or used, as substances or in mixtures in concentrations greater than 0,1 % by weight.	
16	598-63-0 1319-46-6	Lead carbonates: (a) Neutral anhydrous carbonate (PbCO ₃) (b) Trilead-bis(carbonate)-dihydroxide 2Pb CO ₃ Pb(OH) ₂	Shall not be placed on the market, or used, as substances or in mixtures, where the substance or mixture is intended for use as paint.	Member States may, in accordance with the provisions of International Labour Organization (ILO) Convention 13, permit the use on their territory of the substance or mixture, as well as the placing on the market for such use.
17	7446-14-2 15739-80-7	Lead sulphates: (a) PbSO ₄ (b) Pb _x SO ₄	Shall not be placed on the market, or used, as substances or in mixtures, where the substance or mixture is intended for use as paint.	Member States may, in accordance with the provisions of International Labour Organization (ILO) Convention 13, permit the use on their territory of the substance or mixture, as well as the placing on the market for such use.
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	7439-97-6	Mercury	<p>Mercury</p> <p>1. Shall not be placed on the market:</p> <p>(a) in fever thermometers;</p> <p>(b) in other measuring devices intended for sale to the general public (such as manometers, barometers, sphygmomanometers, thermometers other than fever thermometers).</p> <p>2. The following mercury-containing measuring devices intended for industrial and professional uses shall not be placed on the market after 10 April 2014:</p> <p>(a) barometers;</p> <p>(b) hygrometers;</p> <p>(c) manometers;</p> <p>(d) sphygmomanometers;</p> <p>(e) strain gauges to be used with plethysmographs;</p> <p>(f) tensiometers;</p> <p>(g) thermometers and other non-electrical thermometric applications.</p> <p>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.</p> <p>3. The following mercury-using measuring devices intended for professional and industrial uses shall not be placed on the market after 10 April 2014:</p> <p>(a) mercury pycnometers;</p> <p>(b) mercury metering devices for determination of the softening point.</p>	<p>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.</p> <p>The restriction in paragraph 1(b) shall not apply to:</p> <p>(a) measuring devices more than 50 years old on 3 October 2007;</p> <p>(b) barometers (except barometers within point (a)) until 3 October 2009.</p> <p>The restriction in paragraph 2 shall not apply to:</p> <p>(a) sphygmomanometers to be used:</p> <p>(i) in epidemiological studies which are ongoing on 10 October 2012;</p> <p>(ii) as reference standards in clinical validation studies of mercury-free sphygmomanometers;</p> <p>(b) thermometers exclusively intended to perform tests according to standards that require the use of mercury thermometers until 10 October 2017;</p> <p>(c) mercury triple point cells which are used for the calibration of platinum resistance thermometers.</p> <p>The restrictions in paragraphs 2 and 3 shall not apply to:</p> <p>(a) measuring devices more than 50 years old on 3 October 2007;</p> <p>(b) measuring devices which are to be displayed in public exhibitions for cultural and historical purposes.</p>
19	-	Arsenic compounds	<p>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:</p> <ul style="list-style-type: none"> - 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. <p>2. 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.</p> <p>3. Shall not be used in the preservation of wood. Furthermore, wood so treated shall not be placed on the market.</p> <p>Treated wood referred to under derogation point (a) shall not be used:</p> <ul style="list-style-type: none"> - 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. 	<p>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.</p> <p>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:</p> <ul style="list-style-type: none"> - 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). <p>By way of derogation from paragraph 3:</p> <p>(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.</p> <p>(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.</p> <p>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 eye protection when cutting or otherwise crafting this wood. Waste from this wood shall be treated as hazardous by an authorised undertaking'.</p>

20	-	Organostannic compounds	<p>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.</p> <p>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:</p> <p>(a) all craft irrespective of their length intended for use in marine, coastal, estuarine and inland waterways and lakes;</p> <p>(b) cages, floats, nets and any other appliances or equipment used for fish or shellfish farming;</p> <p>(c) any totally or partly submerged appliance or equipment.</p> <p>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.</p> <p>4. Tri-substituted organostannic compounds:</p> <p>(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.</p> <p>(b) Articles not complying with point 4(a) shall not be placed on the market after 1 July 2010.</p> <p>5. Dibutyltin (DBT) compounds:</p> <p>(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.</p> <p>(b) Articles and mixtures not complying with point 5(a) shall not be placed on the market after 1 January 2012.</p> <p>6. Dioctyltin (DOT) compound:</p> <p>(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:</p> <ul style="list-style-type: none"> - 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, - female hygiene products, - nappies, - two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits). <p>(b) Articles not complying with point 6(a) shall not be placed on the market after 1 January 2012.</p>	<p>Articles not complying with point 4(a) but were already in use in the Community before 1 January 2010.</p> <p>Articles not complying with point 5(a) but were already in use in the Community before 1 January 2012.</p> <p>By way of derogation, points 5(a) and 5(b) shall not apply until 1 January 2015 to the following articles and mixtures for supply to the general public:</p> <ul style="list-style-type: none"> - 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 facades. <p>By way of derogation, points 5(a) and 5(b) shall not apply to materials and articles regulated under Regulation (EC) No 1935/2004.</p> <p>Articles not complying with point 6(a) but were already in use in the Community before 1 January 2012.</p>
21	75113-37-0	Di- μ -oxo-di-n-butylstanniohydroxyborane/Dibutyltin hydrogen borate C ₈ H ₁₉ BO ₃ Sn (DBB)	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.	Shall not apply to this substance (DBB) or 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 %.

23	7440-43-9	Cadmium	<p>1. Shall not be used in mixtures and articles produced from the following synthetic organic polymers (hereafter referred to as plastic material):</p> <ul style="list-style-type: none"> - polymers or copolymers of vinyl chloride (PVC) - polyurethane (PUR) - low-density polyethylene (LDPE), with the exception of low-density polyethylene used for the production of coloured masterbatch - cellulose acetate (CA) - cellulose acetate butyrate (CAB) - epoxy resins - melamine-formaldehyde (MF) resins - urea-formaldehyde (UF) resins - unsaturated polyesters (UP) - polyethylene terephthalate (PET) [3907 60] - polybutylene terephthalate (PBT) - transparent/general-purpose polystyrene [3903 11] - acrylonitrile methacrylate (AMMA) - cross-linked polyethylene (VPE) - high-impact polystyrene - polypropylene (PP) [3902 10] <p>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.</p> <p>2. 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. 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.</p> <p>3. Shall not be used for cadmium plating metallic articles or components of the articles used in the following sectors/ applications:</p> <ul style="list-style-type: none"> (a) equipment and machinery for food production, agriculture, cooling, freezing, printing and book-binding (b) equipment and machinery for the production of household goods, furniture, sanitary ware, central heating and air conditioning plant (c) equipment and machinery for the production of paper ,board, textiles and clothing (d) equipment and machinery for the production of industrial handling equipment, industrial handling machinery, road vehicles, agricultural vehicles, rolling stock and vessels. <p>4. 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.</p> <p>5. 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:</p> <ul style="list-style-type: none"> (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, rings, piercing jewellery, wrist-watches, wrist-wear, brooches and cufflinks. 	<p>By way of derogation, paragraph 1 shall not apply to articles placed on the market before 10 December 2011.</p> <p>By way of derogation, paragraphs 1 and 2 shall not apply to articles coloured with mixtures containing cadmium for safety reasons.</p> <p>By way of derogation, paragraph 1, second subparagraph shall not apply to:</p> <ul style="list-style-type: none"> ? 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: <ul style="list-style-type: none"> (a) profiles and rigid sheets for building applications; (b) doors, windows, shutters, walls, blinds, fences, and roof gutters; (c) decks and terraces; (d) cable ducts; (e) 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. <p>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 pictogram.</p> <p>The restrictions in paragraphs 3 shall not apply to:</p> <ul style="list-style-type: none"> ? 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. <p>By way of derogation, paragraph 4 shall not apply to brazing fillers used in defence and aerospace applications and to brazing fillers used for safety reasons.</p> <p>By way of derogation, paragraph 5 shall not apply to articles placed on the market before 10 December 2011 and jewellery more than 50 years old on 10 December 2011.</p>
24	76253-60-6	Monomethyl - tetrachlorodiphenyl methane Trade name: UgilEC 141	<p>1. 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.</p>	<p>By way of derogation, paragraph 1 shall not apply:</p> <ul style="list-style-type: none"> (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.
25	-	Monomethyl-dichloro-diphenyl methane Trade name: UgilEC 121 UgilEC 21	<p>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.</p>	
26	99688-47-8	Monomethyl-dibromo-diphenyl methane bromobenzylbromotoluene, mixture of isomers Trade name: DBBT	<p>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.</p>	

27	7440-02-0	Nickel and its compounds	<p>1. Shall not be used:</p> <p>(a) in any post assemblies which are inserted into pierced ears and other pierced parts of the human body.</p> <p>(b) in articles intended to come into direct and prolonged contact with the skin such as:</p> <ul style="list-style-type: none"> - 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, <p>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 $\mu\text{g}/\text{cm}^2/\text{week}$.</p> <p>(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 $\mu\text{g}/\text{cm}^2/\text{week}$ for a period of at least two years of normal use of the article.</p> <p>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.</p>	<p>By way of derogation, point 1(a) shall not apply: if the rate of nickel release from such post assemblies is less than 0,2 $\mu\text{g}/\text{cm}^2/\text{week}$ (migration limit).</p>
28	-	<p>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.</p>	<p>Shall not be placed on the market, or used,</p> <ul style="list-style-type: none"> - as substances, - as constituents of other substances, or, - in mixtures, <p>for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than:</p> <ul style="list-style-type: none"> - either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or, - the relevant generic concentration limit specified in Part 3 of Annex I of Regulation (EC) No 1272/2008. 	<p>By way of derogation, shall not apply to:</p> <p>(a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC;</p> <p>(b) cosmetic products as defined by Directive 76/768/EEC;</p> <p>(c) the following fuels and oil products:</p> <ul style="list-style-type: none"> - 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); <p>(d) artists' paints covered by Regulation (EC) No 1272/2008;</p> <p>(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;</p> <p>(f) devices covered by Regulation (EU) 2017/745.</p>
29	-	<p>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.</p>	<p>Shall not be placed on the market, or used,</p> <ul style="list-style-type: none"> - as substances, - as constituents of other substances, or, - in mixtures, <p>for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than:</p> <ul style="list-style-type: none"> - either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or, - the relevant generic concentration limit specified in Part 3 of Annex I of Regulation (EC) No 1272/2008. 	<p>By way of derogation, shall not apply to:</p> <p>(a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC;</p> <p>(b) cosmetic products as defined by Directive 76/768/EEC;</p> <p>(c) the following fuels and oil products:</p> <ul style="list-style-type: none"> - 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); <p>(d) artists' paints covered by Regulation (EC) No 1272/2008;</p> <p>(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;</p> <p>(f) devices covered by Regulation (EU) 2017/745.</p>

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.	Shall not be placed on the market, or used, – as substances, – 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, – the relevant generic concentration limit specified in Part 3 of Annex I of Regulation (EC) No 1272/2008.	By way of derogation, 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); (d) artists' paints covered by Regulation (EC) No 1272/2008; (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; (f) devices covered by Regulation (EU) 2017/745.
31	8001–58–9 61789–28–4 84650–04–4 90640–84–9 65996–91–0 90640–80–5 65996–85–2 8021–39–4 122384–78–5	(a) Creosote; wash oil (b) Creosote oil; wash oil (c) Distillates (coal tar), naphthalene oils; naphthalene oil (d) Creosote oil, acenaphthene fraction; wash oil (e) Distillates (coal tar), upper; heavy anthracene oil (f) Anthracene oil (g) Tar acids, coal, crude; crude phenols (h) Creosote, wood (i) Low temperature tar oil, alkaline; extract residues (coal), low temperature coal tar alkaline	1. 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. Treated wood referred to under derogation (b) 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.	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: (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. (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.
32	67–66–3	Chloroform	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.	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.
34	79–00–5	1,1,2-Trichloroethane	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.	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.
35	79–34–5	1,1,2,2-Tetrachloroethane	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.	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.

36	630-20-6	1,1,1,2-Tetrachloroethane	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.	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.
37	76-01-7	Pentachloroethane	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.	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.
38	75-35-4	1,1-Dichloroethene	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.	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.
40	–	Substances classified as flammable gases category 1 or 2, flammable 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 to Regulation (EC) No 1272/2008 or not.	Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: – metallic glitter intended mainly for decoration, – artificial snow and frost, – ‘whoopie’ cushions, – silly string aerosols, – imitation excrement, – horns for parties, – decorative flakes and foams, – artificial cobwebs, – stink bombs.	By way of derogation this provision shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (***) (***) OJ L 147, 9.6.1975, p. 40.
41	67-72-1	Hexachloroethane	Shall not be placed on the market, or used, as substance or in mixtures, where the substance or mixture is intended for the manufacturing or processing of non-ferrous metals.	
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.	

45	-	Diphenylether, octabromo derivative C ₁₂ H ₂ Br ₈ O	1.Shall not be placed on the market, or used: - as a substance, - as a constituent of other substances, or in mixtures, in concentrations greater than 0,1 % by weight. 2.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.	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	25154-52-3 -	(a) Nonylphenol C ₆ H ₄ (OH)C ₉ H ₁₉ (b) Nonylphenol ethoxylates (C ₂ H ₄ O) _n C ₁₅ H ₂₄ O	Shall not be placed on the market, or used, as substances or in mixtures in concentrations equal to or greater than 0,1 % by weight for the following purposes: (1) industrial and institutional cleaning; (2) domestic cleaning; (3) textiles and leather processing; (4) emulsifier in agricultural teat dips; (5) metal working; (6) manufacturing of pulp and paper; (7) cosmetic products; (8) other personal care products; (9) co-formulants in pesticides and biocides.	By way of derogation this provision shall not apply to (1) - 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; (3) - 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); (5) uses in controlled closed systems where the washing liquid is recycled or incinerated; (8) spermicides.
46a	-	Nonylphenol ethoxylates (NPE) (C ₂ H ₄ O) _n C ₁₅ H ₂₄ O	Shall not be placed on the market after 3 February 2021 in textile 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.	By way of derogation this provision 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.
47	-	Chromium VI compounds	1.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.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. 4.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. 5.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 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. Paragraphs 4 and 5 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	108-88-3	Toluene	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	120-82-1	Trichlorobenzene	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 for any use.	By way of derogation this provision shall not apply to use - as an intermediate of synthesis, or, - in the manufacture of 1,3,5-triamino ? 2,4,6-trini- trobenzene (TATB).

50	<p>50-32-8 192-97-2 56-55-3 218-01-9 205-99-2 205-82-3 207-08-9 53-70-3</p>	<p>Polycyclic-aromatic hydrocarbons (PAH) (a) Benzo[a]pyrene (BaP) (b) Benzo[e]pyrene (BeP) (c) Benzo[a]anthracene (BaA) (d) Chrysen (CHR) (e) Benzo[b]fluoranthene (BbFA) (f) Benzo[j]fluoranthene (BjFA) (g) Benzo[k]fluoranthene (BkFA) (h) Dibenzo[a,h]anthracene (DBA_hA)</p>	<p>1.From 1 January 2010, extender oils shall not be placed on the market, or used for the production of tyres or parts of tyres if they contain: – more than 1 mg/kg (0,0001 % by weight) BaP, or, – more than 10 mg/kg (0,001 % by weight) of the sum of all listed PAHs. 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. 3.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. 4.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. 5.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. 6.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.</p>	<p>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. By way of derogation from paragraphs 3 and 4, these paragraphs shall not apply to articles placed on the market for the first time before 27 December 2015.</p>
51	<p>117-81-7 84-74-2 85-68-7 84-69-5</p>	<p>Bis(2-ethylhexyl) phthalate (DEHP) Dibutyl phthalate (DBP) Benzyl butyl phthalate (BBP) Diisobutyl phthalate (DIBP)</p>	<p>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. 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 on December 7, 1944, in Chicago; (b) a military aircraft.</p>	<p>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, when 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 (*); (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. (* Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food (OJ L 12, 15.1.2011, p. 1).</p>

52	28553-12-0 68515-48-0 26761-40-0 68515-49-1 117-84-0	The following phthalates (or other CAS- and EC numbers covering the substance): (a) Di- 'isononyl' phthalate (DINP) (b) Di- 'isodecyl' phthalate (DIDP) (c) Di-n-octyl phthalate (DNOP)	1.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 shall not be placed on the market.	
54	111-77-3	2-(2-methoxyethoxy)ethanol (DEGME)	Shall not be placed on the market after 27 June 2010, for supply to the general public, as a constituent of paints, paint strippers, cleaning agents, self-shining emulsions or floor sealants in concentrations equal to or greater than 0,1 % by weight.	
55	112-34-5	2-(2-butoxyethoxy)ethanol (DEGBE)	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 spray paints or spray 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 market for supply to the general public after 27 December 2010.	
56	26447-40-5 101-68-8 5873-54-1 2536-05-2	Methylenediphenyl diisocyanate (MDI) including the following specific isomers: (a) 4,4' -Methylenediphenyl diisocyanate: (b) 2,4' -Methylenediphenyl diisocyanate: (c) 2,2' -Methylenediphenyl diisocyanate:	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 % by weight of MDI for supply to the general public.	By way of derogation, shall not apply if the packaging: (a) contains protective gloves which comply with the requirements of Council Directive 89/686/ EEC(*****); (b) is marked visibly, legibly and indelibly, and without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures. Derogation(a) shall not be required for hot melt adhesives. (***** OJ L 399, 30.12.1989, p. 18.
57	110-82-7	Cyclohexane	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.	
58	6484-52-2	Ammonium nitrate (AN)	Shall not be placed on the market for the first time after 27 June 2010 as a substance, or in mixtures that contain more than 28 % by weight of nitrogen in relation to ammonium nitrate, for use as a solid fertiliser, straight or compound.	By way of derogation, shall not apply if 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(*****). (***** OJ L 304, 21.11.2003, p. 1.
59	75-09-2	Dichloromethane	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.	By way of derogation, 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.
60	79-06-1	Acrylamide	Shall not be placed on the market or used as a substance or constituent of mixtures in a concentration, equal to or greater than 0,1 % by weight for grouting applications after 5 November 2012.	
61	624-49-7	Dimethylfumarate (DMF)	Shall not be used in articles or any parts thereof in concentrations greater than 0,1 mg/kg. Articles or any parts thereof containing DMF in concentrations greater than 0,1 mg/kg shall not be placed on the market.	

62	62-38-4 103-27-5 13302-00-6 13864-38-5 2654-49-3	(a) Phenylmercury acetate (b) Phenylmercury propionate (c) Phenylmercury 2-ethylhexanoate (d) Phenylmercury octanoate (e) Phenylmercury neodecanoate	1.Shall not be manufactured, placed on the market or used as substances or in mixtures after 10 October 2017 if the concentration of mercury in the mixtures is equal to or greater than 0,01 % by weight. 2.Articles or any parts thereof containing one or more of these 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 to or greater than 0,01 % by weight.	
63	7439-92-1	Lead	1.Shall not be placed on the market or used in any individual part of jewellery articles if the concentration of lead (expressed as metal) in such a part is equal to or greater than 0,05 % by weight. 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. 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 un-coated, does not exceed 0,05 $\mu\text{g}/\text{cm}^2$ per hour (equivalent to 0,05 $\mu\text{g}/\text{g}/\text{h}$), 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.	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 (*); (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. 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 (**); (iv) Directive 2011/65/EU of the European Parliament and of the Council (***) 10.By way of derogation paragraph 7 shall not apply to articles placed on the market for the first time before 1 June 2016. (*) OJ L 326, 29.12.1969, p. 36. (**) Directive 2009/48/EC of the European Parliament and of the Council of 18 June 2009 on the safety of toys (OJ L 170, 30.6.2009, p. 1). (***) Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (OJ L 174, 1.7.2011, p. 88).

64	106-46-7	1,4-dichlorobenzene	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.	
65	-	Inorganic ammonium salts	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/m ³).	By way of derogation, 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.
66	80-05-7	Bisphenol A	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.	
68	375-95-1 335-76-2 2058-94-8 307-55-1 72629-94-8 376-06-7	C9-C14 linear and/or branched perfluorocarboxylic acids (C9-C14 PFCAs), their salts and C9-C14 PFCAs-related substances, perfluorononane-1-oic acid (PFNA); nonadecafluorodecanoic acid (PFDA); henicosafluoroundecanoic acid (PFUnDA); tricosafuorododecanoic acid (PFDoDA); pentacosafuorotridecanoic acid (PFTTrDA); heptacosafuorotetradecanoic acid (PFTDA); including their salts and precursors	<p>1. Shall not be manufactured, or placed on the market as substances on their own from 25 February 2023.</p> <p>2. Shall not, from 25 February 2023, be used in, or placed on the market in:</p> <p>(a) another substance, as a constituent;</p> <p>(b) a mixture;</p> <p>(c) an article, 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.</p> <p>4. Paragraph 2 shall apply from 4 July 2023 to:</p> <p>(i) textiles for oil- and water-repellency for the protection of workers from dangerous liquids that comprise risks to their health and safety;</p> <p>(ii) the manufacture of polytetrafluoroethylene (PTFE) and polyvinylidene fluoride (PVDF) for the production of:</p> <ul style="list-style-type: none"> - 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 <p>6. Paragraph 2(c) shall not apply to articles placed on the market before 25 February 2023.</p> <p>7. Paragraph 2 shall not apply to the can coating for pressurised metered-dose inhalers until 25 August 2028.</p> <p>8. Paragraph 2 (c) shall apply from 31 December 2023 to:</p> <p>(a) semiconductors on their own;</p> <p>(b) semiconductors incorporated in semi-finished and finished electronic equipment.</p> <p>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.</p> <p>10. Until 25 August 2024, the concentration limit referred to in paragraph 2 shall be 2 000ppb for the sum of C9-C14 PFCAs in fluoroplastics and fluoroelastomers that contain perfluoroalkoxy groups. From 25 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.</p> <p>11. The concentration limit referred to in paragraph 2 shall be 1 000ppb 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.</p> <p>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.</p>	<p>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.</p> <p>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:</p> <p>(i) photolithography or etch processes in semiconductor manufacturing;</p> <p>(ii) photographic coatings applied to films;</p> <p>(iii) invasive and implantable medical devices;</p> <p>(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:</p> <ul style="list-style-type: none"> - 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 PFCA-related 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.
69	67-56-1	Methanol	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	556-67-2 541-02-6	Octamethylcyclotetrasiloxane (D4) Decamethylcyclopentasiloxane (D5)	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.	
71	872-50-4	1-methyl-2-pyrrolidone (NMP)	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/m ³ 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.	
72	-	The substances 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. 6.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. 7.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 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).
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)	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 professional users only

74	-	Diisocyanates, O = C=N-R-N = C=O, with R an aliphatic or aromatic hydrocarbon unit of unspecified length	1.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:	
75	-	Substances in tattoo inks and permanent make up	From January 4, 2022, any of the following hazardous substances will be prohibited from being marketed and used. (1)substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008: a) carcinogen category 1A, 1B or 2 0.00005wt% b) germ cell mutagen category 1A, 1B or 2 0.001wt% c) skin sensitiser category 1, 1A or 1B 0.001wt% d) skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2 if the substance is used solely as a pH regulator 0.1wt% in all other cases 0.01wt% e) serious eye damage category 1 or eye irritant category 2 if the substance is used solely as a pH regulator 0.1wt% in all other cases 0.01wt% (2)substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council (3)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 (4)substances listed in Appendix 13 to this Annex.	
76	68-12-2	N,N-dimethylformamide	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.	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.

(3) EU POPs Annex A (Elimination)

All POPs listed in the Stockholm Convention

<http://www.pops.int/TheConvention/ThePOPs/AllPOPs/tabid/2509/Default.aspx>

No.	CAS No.	Chemical	Uses
1	309-00-2	Aldrin	Pesticide
2	319-84-6	Alpha hexachlorocyclohexane	by-product of lindane
3	319-85-7	Beta hexachlorocyclohexane	by-product of lindane
4	5103-71-9	Chlordane	Termite control, etc.
5	143-50-0	Chlordecone	agricultural pesticide

6	60-57-1	Dieldrin	Pesticide
7	115-29-7 959-98-8 33213-65-9	Endosulfan	Pesticide
8	72-20-8	Endrin	Pesticide
9	57-74-9 (※1)	Heptachlor	Termite control, etc.
10	36355-01-8	Hexabromobiphenyl	Flame retardant
11	25637-99-4 3194-55-6	Hexabromocyclododecane (HBCDD)	Flame retardant
12	31153-30-7 (※1)	Hexabromodiphenyl ether	Flame retardant
13	68928-80-3 (※1)	Heptabromodiphenyl ether	Flame retardant
14	118-74-1	Hexachlorobenzene (HCB)	Fungicide
15	87-68-3	Hexachlorobutadiene	Solvent
16	58-89-9	Lindane	Pesticide
17	2385-85-5	Mirex	Flame retardant, pesticide
18	608-93-5	Pentachlorobenzene (PeCB)	Dyestuff carrier, fungicide, flame retardant
19	87-86-5 (※1)	Pentachlorophenol and its salts and esters	Pesticide
20	2051-24-3 (※1)	Polychlorinated biphenyls (PCB)	Heat exchange fluid, etc
21	2050-69-3 (※1)	Polychlorinated naphthalenes(chlorine number)	Insulating coating, etc
22	5436-43-1 (※1)	Tetrabromodiphenyl ether	Flame retardant
23	60348-60-9 (※1)	Pentabromodiphenyl ether	Flame retardant
24	8001-35-2	Toxaphene	Pesticide
25	1163-19-5	Decabromodiphenyl ether	Flame retardant
26	85535-84-8	Short-chained chlorinated paraffins	Plasticizer
27	115-32-2	Dicofol	Pesticide
28	335-67-1 (※1)	Perfluorooctanoic acid(PFOA), its salts and PFOA-related compounds	Fluoropolymer processing aid, surfactant, etc
29	355-46-4 (※1)	Perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds	Manufacture of electronics and semiconductors

※1: There are other CAS No. to be covered.

※2: For the purposes of the entries on No.12, 13, 22, 23 and 25, point (b) of Article 4(1) shall apply to the sum of the concentration of those substances up to 500 mg/kg where they are present in mixtures or articles, subject to Regulation (EU) 2019/1021 ANNEX I.

(4) Five PBT Chemicals under TSCA

<https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/persistent-bioaccumulative-and-toxic-pbt-chemicals>

No.	CAS No.	Chemical	Uses
1	68937-41-7	Phenol, isopropylated phosphate (3:1) PIP(3:1)	Flame retardants in polyvinyl chloride (PVC) plastics, polyurethanes, BPA epoxies, and lubricants
2	1163-19-5	Decabromodiphenyl ether DecaBDE	Flame retardant for heat shrink and nylon connectors
3	87-68-3	Hexachlorobutadiene HCBD	Intermediate substance formed during the production of chlorinated hydrocarbons
4	133-49-3	Pentachlorothiophenol PCTP	May be present in butadiene or isoprene rubber
5	732-26-3	2,4,6-Tris(tert-butyl)phenol 2,4,6-TTBP	Some types of oils used to lubricate parts

Monitoring substances

● What are monitoring substances?

Chemical substances whose content in products and parts must be reported when disclosure is required by laws and regulations.

- ◎ If there are threshold values according to various laws and regulations, the minimum value among the threshold values specified for each condition is used.
- ◎ The percentage of ingredients contained is confirmed by chemSHERPA.
- ◎ Substances that can be answered by submitting chem HERPA data will be deemed to have been declared by submitting such data.
- ◎ For substances that have not yet been chemSHERPA compliant or have not yet been applied under the promulgated laws and regulations, please cooperate with us by submitting a written pledge.
- ◎ Even for chemSHERPA-compliant substances, we may ask you to submit a written pledge for certain reasons.
- ◎ Even if the content is below the threshold value, if you know the content, please report it.

Candidate List of SVHC for Authorisation

<https://echa.europa.eu/candidate-list-table>

SVHC	No.	CAS No.	Substance name
1st	1	120-12-7	アントラセン Anthracene
	2	101-77-9	4,4'-メチレンビスアニリン 4,4'- Diaminodiphenylmethane [MDA]
	3	84-74-2	フタル酸ジブチル Dibutyl phthalate [DBP]
	4	7646-79-9	塩化コバルト(Ⅱ) Cobalt dichloride
	5	1303-28-2	五酸化二ヒ素 Diarsenic pentaoxide
	6	1327-53-3	三酸化二ヒ素 Diarsenic trioxide
	7	7789-12-0 10588-01-9	ニクロム酸(重クロム酸)ナトリウム 二水和物 無水ニクロム酸(重クロム酸)ナトリウム Sodium dichromate
	8	81-15-2	2,4,6-トリニトロ-5-tert-ブチル-1,3-キシレン、マスクキシレン 5-tert-butyl-2,4,6-trinitro-m-xylene [musk xylene]
	9	117-81-7	フタル酸ビス(2-エチルヘキシル) Bis(2-ethylhexyl)phthalate [DEHP]
	10	25637-99-4 3194-55-6 134237-51-7 134237-50-6 134237-52-8	ヘキサブROMシクロドデカン Hexabromocyclododecane [HBCDD] all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD)
	11	85535-84-8	短鎖塩素化パラフィン Alkanes, C10-13, chloro [Short Chain Chlorinated Paraffins]
	12	56-35-9	ビス-n-トリブチルスズオキサイド Bis(tributyltin)oxide [TBTO]
	13	7784-40-9	ヒ酸鉛 Lead hydrogen arsenate
	14	85-68-7	フタル酸-n-ブチル=ベンジル Benzyl butyl phthalate [BBP]
	15	15606-95-8	ヒ酸トリエチル Triethyl arsenate
2nd	16	90640-80-5	アントラセンオイル Anthracene oil
	17	91995-17-4	アントラセンオイル、アントラセンペースト、軽質留分 Anthracene oil, anthracene paste, distn. lights
	18	91995-15-2	アントラセンオイル、アントラセンペースト、アントラセン留分 Anthracene oil, anthracene paste, anthracene fraction
	19	90640-82-7	アントラセンオイル Anthracene oil, anthracene-low
	20	90640-81-6	アントラセンオイル、アントラセンペースト Anthracene oil, anthracene paste
	21	65996-93-2	高温コールタールピッチ Pitch, Coal tar, high temp.
	22	121-14-2	2,4-ジニトロトルエン 2,4-Dinitrotoluene
	23	84-69-5	フタル酸ジイソブチル Diisobutyl phthalate [DIBP]
	24	7758-97-6	クロム酸鉛 Lead chromate
	25	12656-85-8	硫酸モリブデン酸クロム酸鉛、CI ピグメントレッド104 Lead chromate molybdate sulfate red (C.I. Pigment Red 104)
	26	1344-37-2	黄鉛、CI ピグメントイエロー34 Lead sulfochromate yellow (C.I. Pigment Yellow 34)
	27	115-96-8	リン酸トリス(2-クロロエチル) Tris(2-chloroethyl)phosphate
	28	79-06-1	アクリルアミド Acrylamide
3rd	29	79-01-6	トリクロロエチレン Trichloroethylene
	30	10043-35-3 11113-50-1	ホウ酸 Boric acid
	31	12179-04-3 1330-43-4 1303-96-4	四ホウ酸ナトリウム(四ホウ酸二ナトリウム、ホウ砂)、無水物 四ホウ酸ナトリウム十水和物、無水物、五水和物 Disodium tetraborate, anhydrous
	32	12267-73-1	四ホウ酸二ナトリウム(七酸化四ホウ酸二ナトリウム)、水和物 Tetraboron disodium heptaoxide, hydrate
	33	7775-11-3	クロム酸ナトリウム Sodium chromate
	34	7789-00-6	クロム酸カリウム Potassium chromate
	35	7789-09-5	ニクロム酸アンモニウム、重クロム酸アンモニウム Ammonium dichromate
	36	7778-50-9	ニクロム酸カリウム、重クロム酸カリウム Potassium dichromate
	37	10124-43-3	硫酸コバルト(Ⅱ) Cobalt(Ⅱ) sulphate

4th	38	10141-05-6	硝酸コバルト(Ⅱ) Cobalt(Ⅱ) dinitrate
	39	513-79-1	炭酸コバルト(Ⅱ) Cobalt(Ⅱ) carbonate
	40	71-48-7	酢酸コバルト(Ⅱ) Cobalt(Ⅱ) diacetate
	41	109-86-4	2-メトキシエタノール、メチルセロソルブ 2-Methoxyethanol
	42	110-80-5	2-エトキシエタノール、セロソルブ 2-Ethoxyethanol
	43	1333-82-0	三酸化クロム、無水クロム酸(VI) Chromium trioxide
5th	44	7738-94-5 13530-68-2	三酸化クロムおよびそのオリゴマーから生成される酸 クロム酸 Chromic acid ニクロム酸、重クロム酸 Dichromic acid クロム酸、ニクロム酸のオリゴマー-Oligomers of chromic acid and dichromic acid
	45	111-15-9	酢酸2-エトキシエチル 2-Ethoxyethyl acetate
	46	7789-06-2	クロム酸ストロンチウム Strontium chromate
	47	68515-42-4	フタル酸ヘプチルノニルウンデシル (DHNP) 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters
	48	302-01-2 7803-57-8	ヒドラジン Hydrazine
	49	872-50-4	N-メチル-2-ピロリドン 1-Methyl-2-pyrrolidone
6th	50	96-18-4	1,2,3-トリクロロプロパン 1,2,3-Trichloropropane
	51	71888-89-6	1,2-ベンゼンジカルボン酸、シ-C6-8-ブランチドアルキルエステル、C7-rich [DIHP] 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich
	52	—	ジルコニアアルミノケイ酸、耐火性セラミック繊維 Zirconia Aluminosilicate, Refractory Ceramic Fibres※2
	53	7778-44-1	ヒ酸カルシウム Calcium arsenate
	54	111-96-6	ジグリム Bis(2-methoxyethyl) ether
	55	—	アルミノケイ酸、耐火性セラミック繊維 Aluminosilicate, Refractory Ceramic Fibres
	56	11103-86-9	ヒドロキシオクタオキソニヒン酸ニクロム酸カリウム Potassium hydroxyoctaoxidizedichromate
	57	6477-64-1	ニピクリン酸鉛 Lead dipicrate
	58	127-19-5	N,N-ジメチルアセトアミド N,N-dimethylacetamide
	59	7778-39-4	ヒ酸 Arsenic acid
	60	90-04-0	2-メトキシアニリン 2-Methoxyaniline; o-Anisidine
	61	3687-31-8	ヒ酸鉛 Trilead diarsenate
	62	107-06-2	1,2-ジクロロエタン 1,2-Dichloroethane
	7th	63	49663-84-5
64		140-66-9	4-(1,1,3,3-テトラメチルブチル)フェノール 4-(1,1,3,3-tetramethylbutyl)phenol
65		25214-70-4	アニリン・ホルムアルデヒド重合体 Formaldehyde, oligomeric reaction products with aniline
66		117-82-8	ビス(2-メトキシエチル)フタレート Bis(2-methoxyethyl) phthalate
67		13424-46-9	アジ化鉛 Lead diazide, Lead azide
68		15245-44-0	トリニトロロズルシン鉛 Lead styphnate
69		101-14-4	2,2'-ジクロロ-4,4'-メチレンジアニリン 2,2'-dichloro-4,4'-methylenedianiline
70		77-09-8	フェノールフタレイン Phenolphthalein
71		24613-89-6	クロム(Ⅲ)(クロム酸) Dichromium tris(chromate)
72		112-49-2	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme) トリエチレンジグリコールジメチルエーテル
73	110-71-4	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) 1,2-ジメトキシエタン	
74	1303-86-2	Diboron trioxide 三酸化二ボウ素	
75	75-12-7	ホルムアミド Formamide	
76	17570-76-2	Lead(Ⅱ) bis(methanesulfonate) メタンスルホン酸鉛(Ⅱ)	
77	2451-62-9	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione) イソシアヌル酸トリグリシジル	
78	59653-74-6	β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	
79	90-94-8	4,4'-bis(dimethylamino)benzophenone (Michler's ketone) 4,4'-ビス(ジメチルアミノ)ベンゾフェノン(別名:ミヒラーケトン)	
80	101-61-1	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base) 4,4'-メチレンビス(N,N-ジメチルアニリン)(別名:ミヒラーベース)	
81	2580-56-5	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) クリスタルバイオレット	
82	548-62-9	[4-[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene dimethylammonium chloride (C.I. Basic Blue 26) ベーシックブルー26	
83	561-41-1	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	

	84	6786-83-0	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol 4-メチルアミノ-4,4''-ビス(ジメチルアミノ)トリフェニルメタノール
	85	1163-19-5	Bis(pentabromophenyl) ether (DecaBDE) デカブロモジフェニルエーテル
	86	72629-94-8	Pentacosafuorotridecanoic acid ペルフルオロトリデカン酸
	87	307-55-1	Tricosafuorododecanoic acid トリコサフルオロドデカン酸
	88	2058-94-8	Henicosafuoroundecanoic acid ペルフルオロウンデカン酸
	89	376-06-7	Heptacosafuorotetradecanoic acid ヘインコサフルオロテトラデカン酸
	90	123-77-3	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) ジアゼン-1,2-ジカルボキシアミド
	91	85-42-7 13149-00-3 14166-21-3	Hexahydro-2-benzofuran-1,3-dione (HHPA), cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-1,2-dicarboxylic anhydride, ヘキサヒドロフタル酸無水物, シス-1,2-シクロヘキサジカルボン酸無水物, ヘキサヒドロフタル酸無水物
	92	25550-51-0 19438-60-9 48122-14-1 57110-29-9	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride メチルヘキサヒドロ無水フタル酸とその異性体
	93	—	4-Nonylphenol, branched and linear 4-ノニルフェノール、分岐および直鎖
	94	—	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated 4-(1,1,3,3-テトラメチルブチル)フェノール、エトキシレート
	95	625-45-6	Methoxy acetic acid メトキシ酢酸
	96	68-12-2	N,N-dimethylformamide; dimethyl formamide N,N-ジメチルホルムアミド
	97	683-18-1	Dibutyltin dichloride (DBT) ジブチルジクロロスズ
	98	1317-36-8	Lead oxide (lead monoxide) 酸化鉛
	99	1314-41-6	Lead tetroxide (orange lead) 四酸化三鉛
	100	13814-96-5	Lead bis (tetrafluoroborate) ホウフッ化酸鉛
	101	1319-46-6	Trilead bis(carbonate)dihydroxide (basic lead carbonate) ビス(炭酸)三水酸化三鉛
	102	12060-00-3	Lead titanium trioxide チタン酸鉛
	103	12626-81-2	Lead Titanium Zirconium Oxide チタン酸ジルコン酸鉛
	104	11120-22-2	Silicic acid, lead salt ケイ酸鉛
	105	68784-75-8	Silicic acid, barium salt, lead-doped ケイ酸バリウム、鉛ドーパ
	106	106-94-5	1-bromopropane 1-ブロモプロパン
	107	75-56-9	Propylene oxide; 1,2-epoxypropane; methyloxirane メチルオキシラン
	108	84777-06-0	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear 1,2-ベンゼンジカルボン酸、ジペンチルエステル、分岐および直鎖
	109	605-50-5	Diisopentylphthalate フタル酸ジイソペンチル
8th	110	776297-69-9	N-pentyl-isopentylphthalate フタル酸n-ペンチル-イソペンチル
	111	629-14-1	1,2-Diethoxyethane 1,2-ジエトキシエタン
	112	51404-69-4	Acetic acid, lead salt, basic 塩基性酢酸鉛
	113	12036-76-9	Lead oxide sulfate 酸化硫酸鉛
	114	69011-06-9	[Phthalato(2-)]dioxotrilead 二塩基性フタル酸鉛
	115	12578-12-0	Dioxobis(stearato)trilead ジオキソビス(ステアリン酸)三鉛
	116	91031-62-8	Fatty acids, C16-18, lead salts 脂肪酸鉛塩(炭素数16~18)
	117	20837-86-9	Lead cyanamidate シアナミド鉛
	118	10099-74-8	Lead dinitrate 硝酸鉛
	119	12065-90-6	Pentalead tetraoxide sulphate 塩基性硫酸鉛
	120	8012-00-8	Pyrochlore, antimony lead yellow ピグメントイエロー41
	121	62229-08-7	Sulfurous acid, lead salt, dibasic 塩基性亜硫酸鉛
	122	78-00-2	Tetraethyllead 四エチル鉛
	123	12202-17-4	Tetralead trioxide sulphate 三塩基性硫酸鉛
	124	12141-20-7	Trilead dioxide phosphonate 二塩基性リン酸鉛
	125	110-00-9	Furan フラン
	126	64-67-5	Diethyl sulphate 硫酸ジエチル
	127	77-78-1	Dimethyl sulphate 硫酸ジメチル
	128	143860-04-2	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine 3-エチル-2-メチル-2-(3-メチルブチル)-1,3-オキサゾリジン

	129	88-85-7	Dinoseb ジノセブ
	130	838-88-0	4,4'-methylenedi-o-toluidine 4,4'-メチレンビス- <i>o</i> -トルイジン
	131	101-80-4	4,4'-oxydianiline and its salts 4,4'-オキシジアニリン
	132	60-09-3	4-Aminoazobenzene; 4-Phenylazobenzene 4-アミノアゾベンゼン
	133	95-80-7	4-methyl-m-phenylenediamine (2,4-toluene-diamine) 4-メチル- <i>m</i> -フェニレンジアミン
	134	120-71-8	6-methoxy-m-toluidine (p-cresidine) 6-メトキシ- <i>m</i> -トルイジン
	135	92-67-1	Biphenyl-4-ylamine ビフェニル-4-イルアミン
	136	97-56-3	<i>o</i> -aminoazotoluene <i>o</i> -アミノアゾトルエン
	137	95-53-4	<i>o</i> -Toluidine; 2-Aminotoluene <i>o</i> -トルイジン
	138	79-16-3	<i>N</i> -methylacetamide <i>N</i> -メチルアセトアミド
9th	139	7440-43-9	Cadmium カドミウム
	140	1306-19-0	Cadmium oxide 酸化カドミウム
	141	3825-26-1	Ammonium pentadecafluorooctanoate (APFO) ペンタデカフルオロオクタノ酸アンモニウム(APFO)
	142	335-67-1	Pentadecafluorooctanoic acid (PFOA) ペンタデカフルオロオクタノ酸(PFOA)
	143	131-18-0	Dipentyl phthalate (DPP) フタル酸ジペンチル(DPP)
	144	—	4-Nonylphenol, branched and linear, ethoxylated 4-ノニルフェノール、分岐及び直鎖のエトキシレート
10th	145	1306-23-6	Cadmium sulphide 硫化カドミウム
	146	573-58-0	Disodium 3,3'-[[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate)] (C.I. Direct Red 28) 3,3'-[[[1,1'-ビフェニル]-4,4'-ジイルビス(アゾ)]ビス(4-アミノナフタレン-1-スルホネート)ニナトリウム(別名C1ダイレクトレッド28)
	147	1937-37-7	Disodium 4-amino-3'-[[4'-[[2,4-diaminophenyl]azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38) ジナトリウム=4-アミノ-3'-[[4'-[[2,4-ジアミノフェニルアゾ]-1,1'-ビフェニル-4-イルアゾ]-5-ヒドロキシ-6-フェニルアゾ]-2,7-ナフタレンジスルホネート
	148	84-75-3	Dihexyl phthalate フタル酸ジヘキシル、ジヘキシルフタレート、フタル酸ジ- <i>n</i> -ヘキシル
	149	96-45-7	Imidazolidine-2-thione; 2-imidazoline-2-thiol 2-イミダゾリジンチオン
	150	301-04-2	Lead di(acetate) 酢酸鉛(II)、ビス酢酸鉛(II)、二酢酸鉛(II)
	151	25155-23-1	Trixylyl phosphate リン酸トリス(ジメチルフェニル)
11th	152	68515-50-4	1,2-Benzenedicarboxylic acid, dihexylester, branched and linear ビス[アルキル(C=6)]=フタレート
	153	10108-64-2	Cadmium chloride 塩化カドミウム(II)
	154	—	Sodium perborate; perboric acid, sodium salt 過ホウ酸ナトリウム、過ホウ酸、ナトリウム
	155	7632-04-4	Sodium peroxometaborate 過ホウ酸ナトリウム
12th	156	7790-79-6	Cadmium fluoride フッ化カドミウム(II)
	157	10124-36-4; 31119-53-6	Cadmium sulphate 硫酸カドミウム(II)
	158	3846-71-7	2-benzotriazol-2-yl-4,6-di-tert-butylphenol(UV-320) 2-(2H-1,2,3-ベンゾトリアゾール-2-イル)-4,6-ジ- <i>tert</i> -ブチルフェノール
	159	25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol(UV-328) 2-(2H-ベンゾトリアゾール-2-イル)-4,6-ジ- <i>tert</i> -ペンチルフェノール
	160	15571-58-1	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate(DOTE) ビス(2-エチルヘキサン-1-イル)=2,2'-[[ジオクタン-1-イルスタンナンジイル]ビス(スルファンジイル)]ジアセテート
	161	—	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2'-[[2-ethylhexyl]oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE) DOTEとMOTEの反応物
13th	162	68515-51-5 68648-93-1	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate (EC No.201-559-5) 1,2-ベンゼンジカルボン酸、ジ-C6~10-アルキルエステル; 1,2-ベンゼンジカルボン酸、デシル・ヘキシル・オクチルジエステルと0.3%以上のフタル酸ジヘキシル(EC No.201-559-5)との混合物
	163	—	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof] 5- <i>sec</i> -ブチル-2-(2,4-ジメチルシクロヘキサ-3-エン-1-イル)-5-メチル-1,3-ジオキサン[1]、5- <i>sec</i> -ブチル-2-(4,6-ジメチルシクロヘキサ-3-エン-1-イル)-5-メチル-1,3-ジオキサン[2][1と[2]の個々の異性体、またはその組合せも含む]
14th	164	1120-71-4	1,3-propanesultone 1,3-プロパンスルトン
	165	3864-99-1	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327) 2-(2-ヒドロキシ-3,5-ジ- <i>tert</i> -ブチルフェニル)-5-クロロベンゾトリアゾール[別名: 2-(3,5-ジ- <i>tert</i> -ブチル-2-ヒドロキシフェニル)-5-クロロベンゾトリアゾール]
	166	36437-37-3	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350) 2-(2H-ベンゾトリアゾール-2-イル)-4- <i>tert</i> -ブチル-6- <i>sec</i> -ブチルフェノール
	167	98-95-3	Nitrobenzene ニトロベンゼン
	168	375-95-1 21049-39-8 4149-60-4	Perfluorononan-1- <i>oic</i> -acid and its sodium and ammonium salts パーフルオロノナン-1-酸とその塩とアンモニウム塩

15th	169	50-32-8	Benzo[def]chrysene (Benzo[a]pyrene) ベンゾ[def]クリゼン (ベンゾ[a]ピレン)
	170	80-05-7	4,4'-isopropylidenediphenol (bisphenol A; BPA) 4,4'-イソプロピリデンジフェノール(ビスフェノールA)、BPA、2,2-ビス(p-ヒドロキシフェニル)プロパンなど
	171	335-76-2 3830-45-3 3108-42-7	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts ノナデカフルオロデカン酸(PFDA)およびそのナトリウムとアンモニウム塩、(ノナデカフルオロデカン酸アンモニウム、ノナデカフルオロデカン酸、ノナデカフルオロデカン酸ナトリウム)
16th	172	80-46-6	p-(1,1-dimethylpropyl)phenol p-(1,1-ジメチルプロピル)フェノール、4-tert-アミルフェノールなど
	173	—	4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof] 4-ヘプチルフェノール、分岐および直鎖[フェノールの4の位置で炭素数7の直鎖および/または分岐したアルキル鎖が共有結合している物質、個々の異性体やその組合せのどれでも含んだUVCB物質およびwell-defined物質(組成等が分かっている物質)を含む]
17th	174	355-46-4	Perfluorohexane-1-sulphonic acid and its salts トリデカフルオロ-1-ヘキサンスルホン酸、ペルフルオロヘキサンスルホン酸、パーフルオロヘキサンスルホン酸とその塩
	175	218-01-9	Chrysene クリゼン、ベンゾ[a]フェナントレン
	176	56-55-3	Benz[a]anthracene ベンズ[a]アントラセン
	177	10325-94-7	Cadmium nitrate 硝酸カドミウム
	178	21041-95-2	Cadmium hydroxide 水酸化カドミウム
18th	179	513-78-0	Cadmium carbonate 炭酸カドミウム
	180	—	1,6,7,8,9,14,15,16,17,17,18,18- Dodecachloropentacyclo [12.2.1.16.9.02.13.05.10] octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof] 1,6,7,8,9,14,15,16,17,17,18,18-ドデカクロペンタシクロ [12.2.1.16.9.02.13.05.10]オクタデカ-7,15-ジエン("デクロランプラス"™) [個々のanti-およびsyn-の異性体、またはその組合せを含む]
	181	—	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear 1,3,4-チアゾリジン-2,5-ジチオン、ホルムアルデヒド、4-ヘプチルフェノール、分岐および直鎖(RP-HP)[0.1wt%以上の4-ヘプチルフェノール、分岐および直鎖]の反応性生物]
	182	556-67-2	Octamethylcyclotetrasiloxane (D4) オクタメチルシクロテトラシロキサン(D4)
	183	541-02-6	Decamethylcyclopentasiloxane (D5) デカメチルシクロペンタシロキサン(D5)
	184	540-97-6	Dodecamethylcyclohexasiloxane (D6) ドデカメチルシクロヘキサシロキサン(D6)
	185	7439-92-1	Lead 鉛
19th	186	12008-41-2	Disodium Octaborate 八ホウ酸二ナトリウム
	187	191-24-2	Benzo[ghi]perylene ベンゾ[ghi]ペリレン
	188	61788-32-7	Terphenyl, hydrogenated 水素化ターフェニル、水素化テルフェニル
	189	107-15-3	Ethylenediamine(EDA) エチレンジアミン
	190	552-30-7	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride(trimellitic anhydride)(TMA) 1,2,4-ベンゼントリカルボン酸1,2-無水物(トリメリット酸無水物)、無水トリメリット酸
	191	84-61-7	Dicyclohexyl phthalate(DCHP) フタル酸ジシクロヘキシル(DCHP)
	192	6807-17-6	2,2-bis(4'-hydroxyphenyl)-4-methylpentane 2,2-ビス(4-ヒドロキシフェニル)-4-メチルペンタン、 4,4'-(1,3-ジメチルブチリデン)ジフェノール
20th	193	207-08-9	Benzo[k]fluoranthene ベンゾ[k]フルオランテン
	194	206-44-0	Fluoranthene フルオランテン
	195	85-01-8	Phenanthrene フェナントレン
	196	129-00-0	Pyrene ピレン
	197	15087-24-8	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one 1,7,7-トリメチル-3-(フェニルメチレン)ビスシクロ[2.2.1]ヘプタン-2-オン
	198	110-49-6	2-methoxyethyl acetate 2-メトキシエチルアセテート、エチレングリコールモノメチルエーテルアセテート
21th	199	—	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP) 垂リン酸トリス(直鎖、分岐鎖4-ノニルフェニル) (TNPP) (直鎖、分岐鎖4-ノニルフェノール(4-NP)を0.1w/w%以上含有するもの)
	200	—	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof) 2,3,3,3-テトラフルオロ-2-(ヘプタフルオロプロポキシ)プロピオン酸とその塩、その酸ハロゲン化物(各異性体およびその混合物を含む)
	201	98-54-4	4-tert-butylphenol 4-tert-ブチルフェノール
	202	71850-09-4	Diisohexyl phthalate フタル酸ジイソヘキシル
22th	203	119313-12-1	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone 2-ベンジル-2-ジメチルアミノ-4'-モルホリノブチロフェノン
	204	71868-10-5	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one 2-メチル-1-(4-メチルチオフェニル)-2-モルホリノプロパン-1-オン
	205	—	Perfluorobutane sulfonic acid (PFBS) and its salts パーフルオロブタンスルホン酸(PFBS)およびその塩
	206	1072-63-5	1-vinylimidazole 1-ビニルイミダゾール
23th	207	693-98-1	2-methylimidazole 2-メチルイミダゾール

20th	208	94-26-8	Butyl 4-hydroxybenzoate 4-ヒドロキシ安息香酸ブチル
	209	22673-19-4	Dibutylbis(pentane-2,4-dionato-0,0')tin ジブチルビス(2,4-ペンタンジオナト)スズ(IV)
24th	210	143-24-8	bis(2-(2-methoxyethoxy)ethyl) ether ビス(2-(2-メトキシエトキシ)エチル)エーテル
	211	—	Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety ジオクチルスズジラウレート スタンナンのジオクチル誘導体、ビス(ココアシロキシ)誘導体 他のスタンナンのジオクチル誘導体、ビス(脂肪酸アシロキシ)誘導体(C12が脂肪酸アシロキシ部位の主要な炭素数である)
25th	212	—	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers 2-(4-tert-ブチルベンジル)プロピオンアルデヒドおよびその各立体異性体
	213	13840-56-7	Orthoboric acid, sodium salt ホウ酸のナトリウム塩
	3296-90-0	—	2,2-bis(bromomethyl)propane 1,3-diol (BMP); 2,2-ビス(ブロモメチル)プロパン-1,3-ジオール (BMP)
	36483-57-5	—	2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA);
	214	1522-92-5	2,2-ジメチルプロパン-1-オール、トリブロモ誘導体3-ブロモ-2,2-ビス(ブロモメチル)-1-プロパノール (TBNPA)
	96-13-9	—	2,3-dibromo-1-propanol (2,3-DBPA) 2,3-ジブロモ-1-プロパノール (2,3-DBPA)
	215	111-30-8	Glutaral グルタルール
26th	216	—	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17] 中鎖塩素化パラフィン(MCCP)[炭素鎖がC14からC17の範囲にある直鎖クロロアルカンが80%以上含まれるUVCB物質]
	217	—	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) フェノールのアルキル化物(主にパラ位)(オリゴマー化したものからC12リッチの分岐鎖または直鎖アルキル鎖を有する)。個々の異性体および混合物、それらの組み合わせを含む。(PDDP:p-dodecylphenol, p-ドデシルフェノール)
	218	123-91-1	1,4-dioxane 1,4-ジオキサン
26th	219	77-40-7	4,4'-(1-methylpropylidene)bisphenol; (bisphenol B) 4,4'-(1-メチルプロピリデン)ビスフェノール(ビスフェノールB)
	220	119-47-1	6,6'-di-tert-butyl-2,2'-methylene-di-p-cresol (DBMC) 6,6'-ジ-tert-ブチル-2,2'-メチレンジ-p-クレゾール(DBMC)
	221	1067-53-4	tris(2-methoxyethoxy)vinylsilane トリス(2-メトキシエトキシ)ビニルシラン
	222	—	(±)-1,7,7-trimethyl-3-[[4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC) (±)-1,7,7-トリメチル-3-[[4-メチルフェニル]メチレン]ビシクロ[2.2.1]ヘプタン-2-オン の個々の異性体および/またはそれらの組み合わせのいずれかを含む(4-MBC)
27th	223	255881-94-8	S-(tricyclo[5.2.1.0 ^{2,6}]deca-3-en-8(or 9)-yl) O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate S-(トリシクロ[5.2.1.0 ^{2,6}]デカ-3-エン-8(or 9)-イル) O-(イソプロピル or イソブチル or 2-エチルヘキシル) O-(イソプロピル or イソブチル or 2-エチルヘキシル)ホスホロジチオエート
27th	224	924-42-5	N-(hydroxymethyl)acrylamide N-(ヒドロキシメチル)アクリルアミド
28th	225	37853-59-1	1,1'-[ethane-1,2-diylbis(oxy)]bis[2,4,6-tribromobenzene] 1,1'-[エタン-1,2-ジイルビス(オキシ)]ビス[2,4,6-トリブロモベンゼン]
	226	79-94-7	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol 2,2',6,6'-テトラブロモ-4,4'-イソプロピリデンジフェノール
	227	80-09-1	4,4'-sulphonyldiphenol 4,4'-スルホニルジフェノール
	228	13701-59-2	Barium diboron tetraoxide メタホウ酸バリウム
	229	—	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof テトラブロモフタル酸ビス(2-エチルヘキシル) (個々の異性体および/またはその組み合わせのいずれかをカバーしたものの)
	230	4247-02-3	Isobutyl 4-hydroxybenzoate 4-ヒドロキシ安息香酸イソブチル
	231	108-78-1	Melamine メラミン(モノマー)
	232	—	Perfluoroheptanoic acid and its salts パーフルオロヘプタン酸およびその塩
29th	233	—	reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine 2,2,3,3,5,5,6,6-オクタフルオロ-4-(1,1,1,2,3,3,3-ヘプタフルオロプロパン-2-イル)モルホリンと2,2,3,3,5,5,6,6-オクタフルオロ-4-(ヘプタフルオロプロピル)モルホリンの反応生成物
	234	75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide ジフェニル(2,4,6-トリメチルベンゾイル)ホスフィンオキシド
	235	80-07-9	Bis(4-chlorophenyl) sulphone ビス(4-クロロフェニル)スルホン

RoHS Exemptions list (Annex III and IV)

RoHS Directive

https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive_en

RoHS Directive (consolidated version)

<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1584116022829&uri=CELEX:02011L0065-20200301>

Exemptions Procedure

https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive/implementation-rohs-directive_en

Exemptions list

https://environment.ec.europa.eu/document/download/683f0651-fbd-4f2b-a070-c67311203c79_en?filename=Exemptions%20list%20%20validity%20and%20rolling%20planJan2023_1246033057.xlsx

No.	Exemption	Exemption (Japanese)	Scope and dates of applicability	expiration (Japanese)
1(a)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): For general lighting purposes < 30 W: 5 mg	片口金(コンパクト形)蛍光灯ランプに含まれる1バーナー当たりの含有量が次の量を超えない水銀 一般照明用で30W未満:5mg	Expires on 31 December 2011; 3.5 mg may be used per burner after 31 December 2011 until 31 December 2012; Expires on 31 December 2011; 3.5 mg may be used per burner after 31 December 2011	・2011年12月31日まで ・2011年12月31日～2012年12月31日:3.5mg/バーナー ・2012年12月31日以降:2.5mg/バーナー ・2011年12月31日まで ・2011年12月31日以降:3.5mg/バーナー
1(b)	For general lighting purposes ≥ 30 W and < 50 W: 5 mg	一般照明用で30W以上50W未満:5mg		
1(c)	For general lighting purposes ≥ 50 W and < 150 W: 5 mg	一般照明用で50W以上150W未満:5mg		
1(d)	For general lighting purposes ≥ 150 W: 15 mg	一般照明用で150W以上:15mg		
1(e)	For general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm	円形または四角型の一般照明用で、かつチューブの直径17mm以下	No limitation of use until 31 December 2011; 7 mg may be used per burner after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:7mg/バーナー
1(f)	For special purposes: 5 mg	特殊用:5mg		
1(g)	For general lighting purposes < 30 W with a lifetime equal or above 20 000 h: 3.5 mg	一般照明用で寿命が20000時間以上の30W未満:3.5mg	Expires on 31 December 2017	・2017年12月31日まで
2(a)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp):	一般照明用途の2口金直管蛍光灯ランプに含まれるランプ当たりの含有量が次の量を超えない水銀		
2(a)(1)	Tri-band phosphor with normal lifetime and a tube diameter < 9mm (e.g. T2): 5mg	通常寿命の3波長形、管径9mm未満(例 T2):5mg	Expires on 31 December 2011; 4 mg may be used per lamp after 31 December 2011	・2011年12月31日まで ・2011年12月31日以降:4mg/ランプ
2(a)(2)	Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5): 5 mg	標準寿命の3波長形蛍光灯ランプで管径9mm以上17mm以下(例 T5):5mg	Expires on 31 December 2011; 3 mg may be used per lamp after 31 December 2011	・2011年12月31日まで ・2011年12月31日以降:3mg/ランプ
2(a)(3)	Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8): 5 mg	標準寿命の3波長形蛍光灯ランプで管径17mm超28mm以下(例 T8):5mg	Expires on 31 December 2011; 3.5 mg may be used per lamp after 31 December 2011	・2011年12月31日まで ・2011年12月31日以降:3.5mg/ランプ
2(a)(4)	Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12): 5 mg	標準寿命の3波長形蛍光灯ランプで管径28mm超(例 T12):5mg	Expires on 31 December 2012; 3.5 mg may be used per lamp after 31 December 2012	・2012年12月31日まで ・2012年12月31日以降:3.5mg/ランプ
2(a)(5)	Tri-band phosphor with long lifetime (≥ 25 000 h): 8 mg	長寿命(25000時間以上)の3波長形蛍光灯ランプ:8mg	Expires on 31 December 2011; 5 mg may be used per lamp after 31 December 2011	・2011年12月31日まで ・2011年12月31日以降:5mg/ランプ
2(b)	Mercury in other fluorescent lamps not exceeding (per lamp):	その他の蛍光灯ランプに含まれるランプ当たりの含有量が次の量を超えない水銀		
2(b)(3)	Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9)	非直管の3波長形蛍光灯ランプで管径17mm超(例 T9)	No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:15mg/ランプ
2(b)(4)	Lamps for other general lighting and special purposes (e.g. induction lamps)	一般照明用および特殊用のその他のランプ(例 電磁誘導灯)	No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:15mg/ランプ
3	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp):	特殊用途の冷陰極蛍光灯ランプおよび外部電極蛍光灯ランプ(CCFLおよびEEFL)に含まれる、ランプ当たりの含有量が次の量を超えない水銀		
3(a)	Short length (≤ 500 mm)	短型ランプ(500mm以下)	No limitation of use until 31 December 2011; 3.5 mg may be used per lamp after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:3.5mg/ランプ
3(b)	Medium length (> 500 mm and ≤ 1500 mm)	中型ランプ(500mm超、1500mm以下)	No limitation of use until 31 December 2011; 5 mg may be used per lamp after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:5mg/ランプ
3(c)	Long length (> 1500 mm)	長型ランプ(1500mm超)	No limitation of use until 31 December 2011; 13 mg may be used per lamp after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:13mg/ランプ
4(a)	Mercury in other low pressure discharge lamps (per lamp)	その他の低圧放電管ランプに含まれるランプ当たりの水銀	No limitation of use until 31 December 2011; 15 mg may be used per lamp after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:15mg/ランプ
4(b)	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60:	平均演色評価数が60を超えるように改善された一般照明用の高圧ナトリウム(蒸気)ランプに含まれる、ランプ中の含有量が1バーナー当たり次の量を超えない水銀		
4(b)-I	P ≤ 155 W	P ≤ 155W	No limitation of use until 31 December 2011; 30 mg may be used per burner after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:30mg/バーナー
4(b)-II	155 W < P ≤ 405 W	155W < P ≤ 405W	No limitation of use until 31 December 2011; 40 mg may be used per burner after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:40mg/バーナー
4(b)-III	P > 405 W	405W < P	No limitation of use until 31 December 2011; 40 mg may be used per burner after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:40mg/バーナー
4(c)	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner):	その他の一般照明用の高圧ナトリウム(蒸気)ランプに含まれるランプ中の含有量が1バーナー当たり次の量を超えない水銀		
4(c)-I	P ≤ 155 W	P ≤ 155W	No limitation of use until 31 December 2011; 25 mg may be used per burner after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:25mg/バーナー
4(c)-II	155 W < P ≤ 405 W	155W < P ≤ 405W	No limitation of use until 31 December 2011; 30 mg may be used per burner after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:30mg/バーナー
4(c)-III	P > 405 W	P > 405W	No limitation of use until 31 December 2011; 40 mg may be used per burner after 31 December 2011	・2011年12月31日まで制限なし ・2011年12月31日以降:40mg/バーナー
4(e)	Mercury in metal halide lamps (MH)	金属ハロゲン化物ランプ(MH)に含まれる水銀		
4(f)	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	本付属書に特に定められていないその他のランプに含まれる水銀		
5(b)	Lead in glass of fluorescent tubes not exceeding 0.2 % by weight	蛍光管のガラスに含まれる0.2wt%を超えない鉛		
6(a)-I	Lead as an alloying element in steel for machining purposes containing up to 0.35 % lead by weight and in batch hot dip galvanised steel components containing up to 0.2 % lead by weight	機械加工用の鋼材中に合金成分として含まれる0.35wt%の鉛およびバッチ式の溶融亜鉛めっき鋼材部品中に含まれる0.2wt%までの鉛	Expires on 21 July 2021 for categories 1-7 and 10.	カテゴリ1～7、10について有効期限:2021年7月21日
6(b)-I	Lead as an alloying element in aluminium containing up to 0.4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling	鉛を含有するアルミニウムのスクラップをリサイクルして得られたアルミニウムに合金成分として含まれる0.4wt%までの鉛	Expires on 21 July 2021 for categories 1-7 and 10.	カテゴリ1～7、10について有効期限:2021年7月21日
6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0.4 % by weight	機械加工用のアルミニウムに合金成分として含まれる0.4wt%までの鉛	Expires on 18 May 2021 for categories 1-7 and 10.	カテゴリ1～7、10について有効期限:2021年5月18日
6(c)	Copper alloy containing up to 4 % lead by weight	銅合金に含まれる4wt%までの鉛	21 July 2021 for categories 1-7 and 10. 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments. 21 July 2023 for category 8 in vitro diagnostic medical devices. 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	・カテゴリ1～7、10:2021年7月21日 ・体外診断用医療機器および産業用監視・制御機器を除くカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	高融点はんだ(すなわち鉛含有率が85wt%以上の鉛ベースの合金)に含まれる鉛	Applies to categories 1-7 and 10 (except applications covered by point 24 of this Annex) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments expires on 21 July 2021. For category 8 in vitro diagnostic medical devices expires on 21 July 2023. For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.	・カテゴリ1～7、10(本付属書の24項でカバーされる範囲を除く):2021年7月21日 ・体外診断用医療機器および産業用監視・制御機器を除くカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound	電気電子部品中のコンデンサ中の誘電体セラミック以外(例えば圧電素子のガラスまたはセラミック、またはガラスまたはセラミックを母材とする化合物)に含まれる鉛	Applies to categories 1-7 and 10 (except applications covered under point 34) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments expires on 21 July 2021. For category 8 in vitro diagnostic medical devices expires on 21 July 2023. For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.	・2011年12月31日以降:25mg/バーナー ・体外診断用医療機器および産業用監視・制御機器を除くカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	定格電圧がAC125VまたはDC250Vまたはそれ以上のコンデンサ内の誘電体セラミック中の鉛	Does not apply to applications covered by point 7(c)-I and 7(c)-IV of this Annex. 21 July 2021 for categories 1-7 and 10. 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	この付属書のNo.7(c)-I、7(c)-IVでカバーされる用途には適用されない。 ・カテゴリ1～7、10:2021年7月21日 ・体外診断用医療機器・産業用監視・制御機器以外のカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
7(c)-IV	Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors	IO(集積回路)またはディスクリード半導体の一部であるコンデンサ用のPZT系誘電体セラミック材料中の鉛	21 July 2021 for categories 1-7 and 10. 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	・カテゴリ1～7、10:2021年7月21日 ・体外診断用医療機器・産業用監視・制御機器以外のカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
8(b)-I	Cadmium and its compounds in electrical contacts used in: - circuit breakers, - thermal sensing controls, - thermal motor protectors (excluding hermetic thermal motor protectors), - AC switches rated at: - 6 A and more at 250 V AC and more, or - 12 A and more at 125 V AC and more, - DC switches rated at 20 A and more at 18 V DC and more, and - switches for use at voltage supply frequency > 200 Hz.	以下で使用される電気接点中のカドミウムとその化合物 ・回路遮断器 ・熱感知制御器 ・過熱モータプロテクタ(密閉型過熱モータプロテクタを除く) ・下記定格のACスイッチ 250V AC以上において6A以上 125V AC以上において12A以上 ・18V DC以上において20A以上の定格のDCスイッチ ・200Hz以上の周波数の電流で使用するスイッチ	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.	カテゴリ1～7、10に適用。有効期限:2021年7月21日
9(a)-I	Up to 0.75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators (including minibars) designed to operate fully or partly with electrical heater, having an average utilised power input < 75 W at constant running conditions	一定の条件下で75W未満の平均使用電力となる電気ヒーターを使用した吸収型冷蔵庫中のカーボン・スチール冷却システムの防錆用として冷却溶液に含まれる0.75wt%までの六価クロム	Applies to categories 1-7 and 10 and expires on 5 March 2021.	カテゴリ1～7、10について有効期限:2021年3月5日
9(a)-II	Up to 0.75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators: - designed to operate fully or partly with electrical heater, having an average utilised power input ≥ 75 W at constant running conditions, - designed to fully operate with non-electrical heater.	吸収型冷蔵庫中のカーボン・スチール冷却システムの防錆用として冷却溶液に含まれる0.75wt%までの六価クロム 一定の条件下で75W未満の平均使用電力となる電気ヒーターを使用したもの 電気ヒーターなしのもの	Applies to categories 1-7 and 10 and expires on 21 July 2021.	カテゴリ1～7、10について有効期限:2021年7月21日
13(a)	Lead in white glasses used for optical applications	光学機器用の白色ガラスに含まれる鉛	Applies to all categories; expires on: 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11;	全てのカテゴリに適用。有効期限: ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
13(b)-I	Cadmium and lead in filter glasses and glasses used for reflectance standards	イオン着色された光学フィルタガラスタイプの鉛	Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10	・上記を除く全てのカテゴリおよび他のサブカテゴリ:2021年7月21日 カテゴリ1～7、10に適用。有効期限:2021年7月21日
13(b)-II	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex	本付属書の39項に該当する用途を除く、ストライキング(二次熱処理)光学フィルタガラスタイプの鉛	Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10	カテゴリ1～7、10に適用。有効期限:2021年7月21日
13(b)-III	Cadmium and lead in glasses used for reflectance standards	反射標準物質用のガラスに含まれる鉛およびカドミウム	Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10	カテゴリ1～7、10に適用。有効期限:2021年7月21日
15(a)	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: - a semiconductor technology node of 90 nm or larger; - a single die of 300 mm2 or larger in any semiconductor technology node; - stacked die packages with die of 300 mm2 or larger, or silicon interposers of 300 mm2 or larger.	以下の基準の少なくとも一つが当てはまる際の集積回路フリップチップパッケージ内の半導体ダイとキャリア間における確実な電気接続に必要なはんだに含まれる鉛 90nm以上の半導体テクノロジーノード いかなる半導体テクノロジーノードにおいても単一ダイサイズが300mm2以上 300mm2以上のダイまたは300mm2以上のシリコンのインターポーザ付きスタック型ダイパッケージ	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.	カテゴリ1～7、10に適用。有効期限:2021年7月21日
18(b)	Lead as activator in the fluorescent powder (1 % lead by weight or less of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi2 O 5 ·Pb)	BSP(BaSi2O5·Pb)等の蛍光体を含む日焼け用ランプとして使用される放電ランプの蛍光パウダー(1wt%以下の鉛)に活性剤として含まれる鉛	21 July 2021 for categories 1-7 and 10. 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	・カテゴリ1～7、10:2021年7月21日 ・体外診断用医療機器・産業用監視・制御機器以外のカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
18(b)-I	Lead as activator in the fluorescent powder (1 % lead by weight or less of discharge lamps containing phosphors such as BSP (BaSi2O5·Pb) when used in medical phototherapy equipment	医療用光療法機器に使用される際のBSP(BaSi2O5·Pb)等の蛍光体を含む日焼け用ランプとして使用される放電ランプの蛍光パウダー(1wt%以下の鉛)に活性剤として含まれる鉛	Applies to categories 5 and 8, excluding applications covered by entry 34 of Annex IV, and expires on 21 July 2021.	この付属書のNo.34でカバーされる用途を除くカテゴリ5、8に適用。有効期限:2021年7月21日
21(a)	Cadmium when used in colour printed glass to provide filtering functions, used as a component in lighting applications installed in displays and control panels of EEE	電気電子機器のディスプレイおよびコントロールパネル中に設置される照明用途のコンポーネントとして使用される放電ランプの蛍光パウダー(1wt%以下の鉛)に活性剤として含まれる鉛	Applies to categories 1 to 7 and 10 except applications covered by entry 21(b) or entry 39 and expires on 21 July 2021.	No.21(b)または39でカバーされる用途を除くカテゴリ1～7、10に適用。有効期限:2021年7月21日
21(b)	Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	ホウケイ酸ガラスやソーダ石灰ガラスへのエナメル塗布用印刷インキに含まれるカドミウム	Applies to categories 1 to 7 and 10 except applications covered by entry 21(a) or 39 and expires on 21 July 2021.	No.21(a)または39でカバーされる用途を除くカテゴリ1～7、10に適用。有効期限:2021年7月21日
21(c)	Lead in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	ホウケイ酸ガラスやソーダ石灰ガラスへのエナメル塗布用印刷インキに含まれる鉛	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.	カテゴリ1～7、10に適用。有効期限:2021年7月21日
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	セラミック多層コンデンサを円盤状または平面状に機械加工されたスルーホールへはんだ付けするためのはんだに含まれる鉛	21 July 2021 for categories 1-7 and 10. 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments. 21 July 2023 for category 8 in vitro diagnostic medical devices. 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	・カテゴリ1～7、10:2021年7月21日 ・体外診断用医療機器および産業用監視・制御機器を除くカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3)	理事會指令69/493/EECの付属書I(カテゴリ1、2、3および4)で定められ	21 July 2021 for categories 1-7 and 10;	・カテゴリ1～7、10:2021年7月21日

25	and 4) of Council Directive 69/493/EEC(*) (*) Council Directive 69/493/EEC of 15 December 1969 on the approximation of the laws of the Member States relating to crystal glass (OJ L 326, 29.12.1969, p. 36).	ているクリスタルガラスに含まれる鉛(*) (*)クリスタルガラスに関する1969年12月15日の理事会指令69/493/EEC (1969年12月29日のOJ L326, p.36)	21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	・体外診断用医療機器・産業用監視・制御機器以外のカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	アルゴンやクリプトンレーザー管のウィンドウアセンブリを製造するために用いられるシールフリット中の酸化鉛	21 July 2021 for categories 1-7 and 10; 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	・カテゴリ1~7、10:2021年7月21日 ・体外診断用医療機器・産業用監視・制御機器以外のカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
34	Lead in cermet-based trimmer potentiometer elements	サーメットベーストリマー電位差計の構成部品中の鉛	21 July 2021 for categories 1-7 and 10; 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	・カテゴリ1~7、10:2021年7月21日 ・体外診断用医療機器および産業用監視・制御機器を除くカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	ホウ酸亜鉛ガラス基板上の高電圧ダイオードのめっき層中の鉛	21 July 2021 for categories 1-7 and 10; 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	・カテゴリ1~7、10:2021年7月21日 ・体外診断用医療機器・産業用監視・制御機器以外のカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器、カテゴリ11:2024年7月21日
39(a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0.2 µg Cd per mm2 of display screen area)	ディスプレイの照明用途で使用するダウンシフトカドミウムベースの半導体ナノクリスタル量子ドット中のセレン化カドミウム(ディスプレイスクリーン1mm2あたり<0.2µgのカドミウム)	Expires for all categories on 31 October 2019	全てのカテゴリについて2019年10月31日まで
41	Lead in solders and termination finishes of electrical and electronic components and finishes of printed circuit boards used in ignition modules and other electrical and electronic engine control systems, which for technical reasons must be mounted directly on or in the crankcase or cylinder of hand-held combustion engines (classes SH:1, SH:2, SH:3 of Directive 97/68/EC of the European Parliament and of the Council	電気電子構成部品のはんだ及び端子処理部分、並びに点火用モジュール及びその他の電気電子的エンジン制御システムに用いるプリント配線基板の仕上げ処理部分中において、技術的理由から携帯式の燃焼機関(欧州議会及び理事会指令97/68/ECのクラスSH:1,SH:2,SH:3)のクランクケースまたはシリンダー上に直接、またはそれらの内部に取り付けられねばならないものに含まれる鉛	31 March 2022 for categories 1 to 7, 10 and 11; 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments.	・カテゴリ1~7、10、11:2022年3月31日 ・体外診断用医療機器・産業用監視・制御機器以外のカテゴリ8、9:2021年7月21日 ・カテゴリ8体外診断用医療機器:2023年7月21日 ・カテゴリ9産業用監視・制御機器:2024年7月21日
42	Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in non-road professional use equipment: —with engine total displacement ≥ 15 litres; or —with engine total displacement < 15 litres and the engine is designed to operate in applications where the time between signal to start and full load is required to be less than 10 seconds; or regular maintenance is typically performed in a harsh and dirty outdoor environment, such as mining, construction, and agriculture applications.	道路以外の業務用機器に適用される内燃エンジンを動かすディーゼル、ガス燃料のペーリングとブッシュ中の鉛。 —エンジンの総排気量が15L以上 または —エンジンの総排気量が15L未満で、そのエンジンが開始から全負荷の間の時間が10秒以下である用途に動作するように設計されているか、もしくは鉱業、建設、農業のような過酷で汚い屋外の環境で通常のメンテナンスが行われていること。	Applies to category 11, excluding applications covered by entry 6(c) of this Annex. Expires on 21 July 2024.	・No.6でカバーされる用途を除くカテゴリ11:2024年7月21日
43	Bis(2-ethylhexyl) phthalate in rubber components in engine systems, designed for use in equipment that is not intended solely for consumer use and provided that no plasticised material comes into contact with human mucous membranes or into prolonged contact with human skin and the concentration value of bis(2-ethylhexyl) phthalate does not exceed: (a)30 % by weight of the rubber for (i)gasket coatings; (ii)solid-rubber gaskets; or (iii)rubber components included in assemblies of at least three components using electrical, mechanical or hydraulic energy to do work, and attached to the engine. (b)10 % by weight of the rubber for rubber-containing components not referred to in point (a). For the purposes of this entry, "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.	人が使用することを想定していない、もしくは可塑性物質が人の粘膜に接触しない、或いは人の皮膚に長期にわたり接触しないことを規定した機器用に設計されたエンジンシステムの、ゴム部品中のフタル酸ビス(2-エチルヘキシル)フタル酸ビス(2-エチルヘキシル)の濃度は以下の量を超えないこと。 (a)以下の(i)~(iii)のゴム中の30重量% (i)ガスケットコーティング (ii)固形ゴムガスケット (iii)作業を行うために電気的、機械的、油圧式エネルギーを使用する少なくとも3個の部品の組み合わせを含み、エンジンに取り付けるゴム部品 (b)(a)以外のゴム含有部品中の10重量% "人の皮膚に長期にわたる接触"とは、10分以上の継続的な接触もしくは1日あたり30分以上の接触のこと	Applies to category 11 and expires on 21 July 2024.	・カテゴリ11:2024年7月21日
44	Lead in solder of sensors, actuators, and engine control units of combustion engines within the scope of Regulation (EU) 2016/1628 of the European Parliament and of the Council (*1), installed in equipment used at fixed positions while in operation which is designed for professionals, but also used by non-professional users	位置が固定されている機器(専門家向けの機器ではあるが、専門ではないユーザーも使用するもの)に取り付けられ、欧州議会・理事会規則(EU)2016/1628に適合している内燃機関のセンサー、アクチュエーター、およびエンジン制御ユニットのはんだ中の鉛。	Applies to category 11 and expires on 21 July 2024.	・カテゴリ11:2024年7月21日

RoHS Exemptions list (Annex IV)

List of exempted uses

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02011L0065-20160715&from=EN>

No.	Exemption	Exemption (Japanese)	expiration
Equipment utilising or detecting ionising radiation 電離放射線の利用または検出に使用される機器			
1	Lead, cadmium and mercury in detectors for ionising radiation.	電離放射線検出器に含まれる鉛、カドミウムおよび水銀	
2	Lead bearings in X-ray tubes.	X線管中の鉛ベアリング	
3	Lead in electromagnetic radiation amplification devices: micro-channel plate and capillary plate.	電磁波増幅デバイスに含まれる鉛: マイクロチャンネルプレートおよびキャピラリープレート	
4	Lead in glass frit of X-ray tubes and image intensifiers and lead in glass frit binder for assembly of gas lasers and for vacuum tubes that convert electromagnetic radiation into electrons.	X線管および蛍光増倍管用のガラスフリット中に含まれる鉛、並びにガラスレーザの組立て用および電離放射線を電子に変換する真空管用のガラスフリットバインダに含まれる鉛	
5	Lead in shielding for ionising radiation.	電離放射線用のシールドに含まれる鉛	
6	Lead in X-ray test objects.	X線試験体に含まれる鉛	
7	Lead stearate X-ray diffraction crystals.	X線回折結晶に含まれるステアリン酸鉛	
8	Radioactive cadmium isotope source for portable X-ray fluorescence spectrometers.	携帯型蛍光X線分析装置用の放射性カドミウム同位体源	
Sensors, detectors and electrodes センサー、検出器および電極			
1a	Lead and cadmium in ion selective electrodes including glass of pH electrodes.	pH電極のガラスを含むイオン選択電極に含まれる鉛およびカドミウム	
1b	Lead anodes in electrochemical oxygen sensors.	電気化学的酸素センサーの陽電極に含まれる鉛	
1c	Lead, cadmium and mercury in infra-red light detectors.	赤外線検出器に含まれる鉛、カドミウムおよび水銀	
1d	Mercury in reference electrodes: low chloride mercury chloride, mercury sulphate and mercury oxide.	基準電極に含まれる水銀: 低塩素の塩化水銀、硫酸水銀および酸化水銀	
Others その他			
9	Cadmium in helium-cadmium lasers.	ヘリウム-カドミウムレーザに含まれるカドミウム	
10	Lead and cadmium in atomic absorption spectroscopy lamps.	原子吸光分光分析用ランプに含まれる鉛およびカドミウム	
11	Lead in alloys as a superconductor and thermal conductor in MRI.	MRI(磁気共鳴画像診断装置)中の超伝導体および熱伝導体用の合金に含まれる鉛	
12	Lead and cadmium in metallic bonds creating superconducting magnetic circuits in MRI, SQUID, NMR (Nuclear Magnetic Resonance) or FTMS (Fourier Transform Mass Spectrometer) detectors. Expires on 30 June 2021.	MRI(磁気共鳴画像診断装置)、SQUID(超伝導量子干渉計)、NMR(Nuclear Magnetic Resonance)(核磁気共鳴)またはFTMS(Fourier Transform Mass Spectrometer)(フーリエ変換質量分析計)検出器の超伝導磁気回路を構成している金属結合中に含まれる鉛およびカドミウム	Expires on 30 June 2021.
13	Lead in counterweights.	カウンタウエイト中の鉛	
14	Lead in single crystal piezoelectric materials for ultrasonic transducers.	超音波トランスデューサ用の単結晶圧電結晶材料に含まれる鉛	
15	Lead in solders for bonding to ultrasonic transducers.	超音波トランスデューサの接合用はんだに含まれる鉛	
16	Mercury in very high accuracy capacitance and loss measurement bridges and in high frequency RF switches and relays in monitoring and control instruments not exceeding 20 mg of mercury per switch or relay.	超高精度キャパシタンスおよび損失測定ブリッジに含まれる水銀および監視および制御機器に使われる高周波RFスイッチおよびリレーに含まれる水銀であって、1スイッチまたは1リレーあたり20mgを超えないもの	
17	Lead in solders in portable emergency defibrillators.	携帯型緊急用除細動器に使われるはんだに含まれる鉛	
18	Lead in solders of high performance infrared imaging modules to detect in the range 8-14 μm.	8-14 μm帯を検出する高性能赤外線画像モジュールに使われるはんだに含まれる鉛	
19	Lead in Liquid crystal on silicon (LCoS) displays.	LCoS(反射型液晶表示パネル)ディスプレイに含まれる鉛	
20	Cadmium in X-ray measurement filters.	X線測定フィルタに含まれるカドミウム	
21	Cadmium in phosphor coatings in image intensifiers for X-ray images until 31 December 2019 and in spare parts for X-ray systems placed on the EU market before 1 January 2020.	(1) X線画像増倍用イメージング intensified フィアア中の蛍光コーティング中に含まれるカドミウム (2) 2020年1月1日以前にEU市場に上市されたX線システム用スペアパーツに含まれるカドミウム	(無効)
22	Lead acetate marker for use in stereotactic head frames for use with CT and MRI and in positioning systems for gamma beam and particle therapy equipment. Expires on 30 June 2021.	CTおよびMRI用の定位ヘッドフレーム、およびガンマ線および粒子線治療装置のための位置決め装置に用いられる酢酸鉛マーカー	Expires on 30 June 2021.
23	Lead as an alloying element for bearings and wear surfaces in medical equipment exposed to ionising radiation. Expires on 30 June 2021.	電離放射線にさらされる医療機器のベアリングおよび摩擦表面のための合金要素としての鉛	Expires on 30 June 2021.
24	Lead enabling vacuum tight connections between aluminium and steel in X-ray image intensifiers. Expires on 31 December 2019.	X線イメージング intensified フィアア中のアルミニウムと鉄の間の真空気密接続を可能にする鉛	(無効)
25	Lead in the surface coatings of pin connector systems requiring nonmagnetic connectors which are used durably at a temperature below 20 °C under normal operating and storage conditions. Expires on 30 June 2021.	通常動作および貯蔵状態でマイナス20°C以下の温度で永続的に使用されている非磁性コネクタを必要とするピンコネクタシステムの表面コーティングに含まれる鉛	Expires on 30 June 2021.
26	Lead in the following applications that are used durably at a temperature below -20 °C under normal operating and storage conditions: (a) solders on printed circuit boards; (b) termination coatings of electrical and electronic components and coatings of printed circuit boards; (c) solders for connecting wires and cables; (d) solders connecting transducers and sensors. Lead in solders of electrical connections to temperature measurement sensors in devices which are designed to be used periodically at temperatures below -150 °C. These exemptions expire on 30 June 2021.	通常動作および貯蔵状態でマイナス20°C未満の温度で永続的に使用される以下に含まれている鉛: (a) プリント配線基板上のはんだ、 (b) 電気・電子部品の末端のコーティングおよびプリント配線基板のコーティング、 (c) ワイヤおよびケーブルを接続するためのはんだ、 (d) トランスデューサおよびセンサを接続するはんだ マイナス150°C未満の温度で定期的に使用されるように設計されている装置の温度測定センサーへの電気接続に含まれる鉛。	Expires on 30 June 2021.
27	Lead in - solders, - termination coatings of electrical and electronic components and printed circuit boards, - connections of electrical wires, shields and enclosed connectors, which are used in (a) magnetic fields within the sphere of 1 m radius around the isocentre of the magnet in medical magnetic resonance imaging equipment, including patient monitors designed to be used within this sphere, or (b) magnetic fields within 1 m distance from the external surfaces of cyclotron magnets, magnets for beam transport and beam direction control applied for particle therapy. Expires on 30 June 2020.	(a) この範囲内で使用されるように設計された患者の監視装置を含む医療用磁気共鳴画像装置(MRI)中の磁石のアイソセンタ周囲の半径1m圏内の磁場、または (b) 粒子線治療のために適用されるサイクロトロン磁石、ビーム輸送およびビームの方向制御のための磁石から距離1mの範囲内の磁場の中で使用されている以下に含まれている鉛 - はんだ、 - 電気・電子部品およびプリント配線基板の末端のコーティング、 - 電線、シールドおよび封入されたコネクタの接続部分	Expires on 30 June 2021.
28	Lead in solders for mounting cadmium telluride and cadmium zinc telluride digital array detectors to printed circuit boards. Expires on 31 December 2017.	テルル化カドミウムおよびテルル化亜鉛カドミウムのデジタルアレイ検出器をプリント配線基板上に搭載させるためのはんだに含まれる鉛	(無効)
29	Lead in alloys, as a superconductor or thermal conductor, used in cryo-cooler cold heads and/or in cryo-cooled cold probes and/or in cryo-cooled equipotential bonding systems, in medical devices (category 8) and/or in industrial monitoring and control instruments. Expires on 30 June 2021.	医療機器(カテゴリー8)及び/または産業用監視制御機器のクライオクーラーの冷却ヘッド及び/またはクライオクーラーで冷却された低温プローブ及び/またはクライオクーラーで冷却された導電位ボンディングシステム中で使用される超伝導体または熱伝導体としての合金中の鉛	Expires on 30 June 2021.
30	Hexavalent chromium in alkali dispensers used to create photocathodes in X-ray image intensifiers until 31 December 2019 and in spare parts for X-ray systems placed on the EU market before 1 January 2020.	(1) X線イメージング intensified フィアアにおいて電子銃を作るために用いられるアルカリディスペンサに含まれる六価クロム (2) 2020年1月1日以前にEU市場に上市されるX線システム用スペアパーツに含まれる六価クロム	(無効)
31a	Lead, cadmium, hexavalent chromium, and polybrominated diphenyl ethers (PBDE) in spare parts recovered from and used for the repair or refurbishment of medical devices, including in vitro diagnostic medical devices, or electron microscopes and their accessories, provided that the reuse takes place in auditable closed-loop business-to-business return systems and that each reuse of parts is notified to the customer. Expires on: (a) 21 July 2021 for the use in medical devices other than in vitro diagnostic medical devices; (b) 21 July 2023 for the use in in vitro diagnostic medical devices; (c) 21 July 2024 for the use in electron microscopes and their accessories.	監視可能な閉ループのBtoB返却システムからの再利用が行われ、さらに各々の部品の再利用が消費者に通知される場合に限り、体外診断用医療機器および電子顕微鏡とそのアクセサリを含む医療機器の修理または改良のために回収されて、使われるスペアパーツに含まれる鉛、カドミウム、六価クロムとポリブロモジフェニルエーテル(PBDE)	(a) Expires on 21 July 2021. (b) Expires on 21 July 2023. (c) Expires on 21 July 2024.

32	Lead in solders on printed circuit boards of detectors and data acquisition units for Positron Emission Tomographs which are integrated into Magnetic Resonance Imaging equipment. Expires on 31 December 2019.	核磁気共鳴画像(MRI)機器に組込まれるポジトロン断層法(PET)用検出器およびデータ収集装置のプリント配線基板のはんだに含まれる鉛	(無効)
33	Lead in solders on populated printed circuit boards used in Directive 93/42/EEC class IIa and IIb mobile medical devices other than portable emergency defibrillators. Expires on 30 June 2016 for class IIa and on 31 December 2020 for class IIb.	携帯型緊急用除細動器を除く、指令93/42/EEC(医療機器指令)クラスIIa および IIbの携帯型医療機器に使用される部品実装済みプリント配線基板のはんだに含まれる鉛	(無効)
34	Lead as an activator in the fluorescent powder of discharge lamps when used for extracorporeal photopheresis lamps containing BSP (BaSi ₂ O ₅ ·Pb) phosphors. Expires on 22 July 2021.	BSP(BaSi ₂ O ₅ ·Pb)蛍光体を含む体外循環光療法ランプに使用される場合の放電ランプの蛍光パウダー中の活性剤としての鉛	Expires on 22 July 2021.
35	Mercury in cold cathode fluorescent lamps for back-lighting liquid crystal displays, not exceeding 5 mg per lamp, used in industrial monitoring and control instruments placed on the market before 22 July 2017. Expires on 21 July 2024.	2017年7月22日より前に上市された産業用の監視および制御機器で使用されるバックライティング液晶ディスプレイ用の冷陰極蛍光ランプの中の水銀であって、1ランプにつき5mgを超えないもの	Expires on 21 July 2024.
36	Lead used in other than C-press compliant pin connector systems for industrial monitoring and control instruments. Expires on 31 December 2020. May be used after that date in spare parts for industrial monitoring and control instruments placed on the market before 1 January 2021.	産業用の監視および制御機器用のC-プレスに準拠したピン・コネクタシステム以外の中で使われる鉛	(無効)
37	Lead in platinumized platinum electrodes used for conductivity measurements where at least one of the following conditions applies: (a) wide-range measurements with a conductivity range covering more than 1 order of magnitude (e.g. range between 0.1 mS/m and 5 mS/m) in laboratory applications for unknown concentrations; (b) measurements of solutions where an accuracy of +/- 1 % of the sample range and where high corrosion resistance of the electrode are required for any of the following: (i) solutions with an acidity < pH 1; (ii) solutions with an alkalinity > pH 13; (iii) corrosive solutions containing halogen gas; (c) measurements of conductivities above 100 mS/m that must be performed with portable instruments. Expires on 31 December 2025.	伝導率測定のために使用される以下の条件の少なくとも1つが適用される白金めっき白金電極中の鉛: (a) 試験所の未知の濃度測定用アプリケーションとして1桁以上(例えば0.1mS/m~5mS/mレンジ)をカバーする伝導率が広範囲の測定用; (b) プラスマイナス1%の精度と電極の高耐蝕性が必要な以下の溶液の測定用: (i) pH1未満の酸性溶液 (ii) pH13超のアルカリ性溶液 (iii) ハロゲンガスを含む腐食性の溶液 (c) 携帯型計器で測定しなくてはならない100mS/m以上の伝導率測定用	Expires on 31 December 2025.
38	Lead in solder in one interface of large area stacked die elements with more than 500 interconnects per interface which are used in X-ray detectors of computed tomography and X-ray systems. Expires on 31 December 2019. May be used after that date in spare parts for CT and X-ray systems placed on the market before 1 January 2020.	CTとX線装置のX線検出器で使用されるインターフェースにつき500以上を接続する広範囲の積層型素子の1つのインターフェースに含まれるはんだの鉛	(無効)
39	Lead in micro-channel plates (MCPs) used in equipment where at least one of the following properties is present: (a) a compact size of the detector for electrons or ions, where the space for the detector is limited to a maximum of 3 mm/MCP (detector thickness + space for installation of the MCP), a maximum of 6 mm in total, and an alternative design yielding more space for the detector is scientifically and technically impracticable; (b) a two-dimensional spatial resolution for detecting electrons or ions, where at least one of the following applies: (i) a response time shorter than 25 ns; (ii) a sample detection area larger than 149 mm ² ; (iii) a multiplication factor larger than 1.3 × 10 ³ ; (c) a response time shorter than 5 ns for detecting electrons or ions; (d) a sample detection area larger than 314 mm ² for detecting electrons or ions; (e) a multiplication factor larger than 4.0 × 10 ⁷ . The exemption expires on the following dates: (a) 21 July 2021 for medical devices and monitoring and control instruments; (b) 21 July 2023 for in-vitro diagnostic medical devices; (c) 21 July 2024 for industrial monitoring and control instruments.	以下の特性の少なくとも1つが存在する装置で使われるマイクロチャンネルプレート(MCPs)中の鉛: (a) 最高3mm/MCP(検出器の厚さ+MCP設置スペース)、全体で最高6mmを限度としたスペースの小さいサイズの電子またはイオン検出器ならばにより大きいスペースを必要とする代替設計でない科学技術的に代替不可能な検出器 (b) 以下の少なくとも1つが適用される電子またはイオン検出用の二次元の空間分解能: (i) 25nsより短い応答時間 (ii) 149mm ² より大きな検出領域 (iii) 1.3×10 ³ より大きい増倍率 (c) 電子またはイオン検出用の5nsより短い応答時間; (d) 電子またはイオン検出用の314mm ² より大きな検出領域 (e)4.0×10 ⁷ より大きい増倍率	(a) Expires on 21 July 2021. (b) Expires on 21 July 2023. (c) Expires on 21 July 2024.
40	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC for industrial monitoring and control instruments. Expires on 31 December 2020. May be used after that date in spare parts for industrial monitoring and control instruments placed on the market before 1 January 2021.	産業用の監視および制御機器用の定格電圧AC125VまたはDC250Vより小さいコンデンサの中の誘電セラミックの鉛	(無効)
41	Lead as a thermal stabiliser in polyvinyl chloride (PVC) used as base material in amperometric, potentiometric and conductometric electrochemical sensors which are used in in-vitro diagnostic medical devices for the analysis of blood and other body fluids and body gases. Expires on 31 March 2022.	血液、他の体液、体内ガス分析のために体外診断用医療機器で使われる電流、電位差、導電率の電気化学的センサ中の主成分素材として使われるポリ塩化ビニル(PVC)中のサーマルスタビライザとしての鉛	Expires on 31 March 2022.
42	Mercury in electric rotating connectors used in intravascular ultrasound imaging systems capable of high operating frequency (> 50 MHz) modes of operation. Expires on 30 June 2019.	高周波(>50MHz)モードで運転可能な血管内超音波画像処理システムで使われる電気回転コネクタ中の水銀	Expires on 30 June 2019.
43	Cadmium anodes in Hersch cells for oxygen sensors used in industrial monitoring and control instruments, where sensitivity below 10 ppm is required. Expires on 15 July 2023.	10ppm未満の感度が要求される産業用監視・制御機器で使用される酸素センサのためのエルシュセル(ハーシュセル)中のカドミウムアノード	Expires on 15 July 2023.
44	Cadmium in radiation tolerant video camera tubes designed for cameras with a centre resolution greater than 450 TV lines which are used in environments with ionising radiation exposure exceeding 100 Gy/hour and a total dose in excess of 100kGy. Applies to category 9. Expires on 31 March 2027.	100Gy/hを超える電離放射線の曝露があり、かつ総量が100kGyを超える環境で使用される中央解像度が450TV line(訳注:アナログカメラにおける水平解像度。画面を左右に横断する直線の本数を解像度の基準とする。)より高いカメラ用に設計された耐放射線ビデオカメラ管の中のカドミウムカテゴリー9:2027年3月31日に終了。	Expires on 31 March 2027.