



Management Criteria for Regulated Chemicals

Version 4.8, May 2022

OMRON Corporation

Device and Module Solutions Company

1. Purpose

This document specifies the scope covered by “*Certificate of Non-inclusion for Prohibited Substances in Products*” (hereinafter, “Certificate of Non-inclusion”) issued by Device and Module Solutions Company (hereinafter, “OMRON”).

2. Scope

This document applies to OMRON products certified and covered by Certificate of Non-inclusion issued by OMRON. This document is intended for products at the time of shipment, excluding products processed or contaminated after the shipment or during distribution.

3. Restrictions

3.1. Regulated Substances

- (1) Attachment 2, “*List of Regulated Chemical Substances*,” lists prohibited chemicals rated as Rank-A
- (2) Attachment 3, “*List of Exempted Applications*,” lists exempted uses of the prohibited chemicals
- (3) Attachment 4, “*Illustrated List of Regulated Chemical Substances*,” lists substance groups as examples for Attachment 1 stated as Item (1) above.

3.2. Designation of Regulated Chemicals

Based on IEC62474 for electrical and electronic components, regulated chemical substances are designated and rated on chemSHERPA.

Rank A (prohibited substances/applications)

Substances whose content is already banned by laws and regulations, or substances/applications designated as banned to use by OMRON originally.

Relative laws and regulations are listed in Attachment 2, “*List of Regulated Chemical Substances*.”

*For chemical substances whose specific uses are subject to control under this document, our Certificate of Non-inclusion does not cover such specific uses.

OMRON conducts testing for regulated chemicals based on the precondition that OMRON products are not intended for such specific uses.

Our “Certificate of Non-inclusion” does not cover substances for exempted applications specified by RoHS Directives or other environmental regulations that are effective at the time of issuing the certificate.

Attachment 1. Terms and Definitions

1. Regulated chemicals /Regulated chemical substances

Chemical substances whose use for or in products is prohibited or restricted, or whose contents shall be identified by laws and regulations in countries, or chemical substances whose contents and usage are identified and restricted by OMRON voluntarily due to their hazardous properties.

2. Contain a chemical or use of a chemical

When the content of a chemical substance in a Part or material exceeds the level specified by the content determination criterion, it is determined that the chemical is contained in the Part or material. The decision is made also based on whether or not the chemical is intentionally used, whether or not its concentration exceeds threshold values, or whether or not its use is restricted.

Refer to Attachment 2, "*List of Restricted Chemical Substances*" and Attachment 3, "*List of Exempted Applications*" for details of the determination process.

3. Non-inclusion

Non-inclusion of a chemical substance means that the content of the chemical substance is less than the threshold value specified by the content determination criteria, including cases where the chemical is not intentionally used, where its concentration is less than threshold concentration values, or where the chemicals is not intended for restricted uses.

Even if a restricted chemical is used in a production process for a product, "non-inclusion" of the chemical can be determined unless the chemical remains in the product.

(For example, when a volatile solvent is used to clean a component, the solvent will not remain with or in the component, and therefore you can determine "non-inclusion" of the chemical substance.)

4. Content determination criteria

The content determination criteria determine whether the content of chemical substances exceeds respectively regulated levels or not. The criteria specify restricted uses and applicable threshold values, based on regulatory requirements, international standards, and other relative regulations.

5. Intentional use

Intentional use of chemicals refers to intentionally adding, filling or applying restricted chemicals for the purpose of continuously sustaining functionality or quality of products, parts or materials.

6. homogeneous material

Homogeneous material means a material of "uniform composition throughout" that cannot be mechanically disjointed or separated into different materials (by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes).

Examples of homogeneous materials include different types of plastics, ceramics, glasses, metals, plating, paper, unpopulated boards, resins, and coating.

7. IEC 62474

IEC 62472, standing for the International Electrotechnical Commission (IEC) 62474 Material Declaration Standard (for the electrical and electronics industry), specifies procedures, formats and other details required for material declarations of products supplied in the electrical and electronics industry. Substances and substance groups satisfying this standard are uploaded to the IEC 62474 database.

8. chemSHERPA

This is a communication scheme used for sharing information of chemicals contained in products throughout the supply chain. The scheme was developed by the Ministry of Economy, Trade and Industry (METI) of Japan, and is maintained and managed by the Joint Article Management Promotion-consortium (JAMP).

Attachment 2. List of Regulated Chemical Substances

The cautions about "Note" used in the list are as follows.

Cautions :

Note 1 The "Judgement criteria" is used to make a judgement on whether the substance is present over the criteria.

The five-digit ID code provided in "ID" column is an ID code defined in IEC 62474 DSL and is also used in the Compliance Information of chemSHERPA.

The "IEC62474DSL" refers to the List of Declarable substance groups and declarable substances," defined in IEC 62474. You can download the list from the following URL.

<http://std.iec.ch/iec62474/iec62474.nsf>

The "Applications" column under "Content criteria": For chemical substances whose specific uses are restricted, OMRON conducts testing based on the precondition that OMRON products are not intended for those specific uses.

Note 2 The "Reporting Level" means the threshold level for concentrations which are calculated by dividing the content of the substance by the weight of the product, homogeneous material, or constituent part containing the substance (denominator for calculating the content rate).

The terms, Product, Part, Material and Article, indicated in the List mean the following, respectively.

Product = OMRON Product, Part = constituent part, Material = Homogeneous material

Article = Articles are items given specific shape, appearance or design during its manufacturing to serve its function in its end application rather than the functions of its chemical composition.

Note 3 The substance without CAS No. assigned is listed with its SG No. or SN No. of chemSHERPA.

Note 4 The substance / substance group has exempted applications. Refer to Attachment 3.

Note 5 As the threshold level is indicated as the content rate of the subject element, the calculation of content rates is based on the subject element's conversion factor shown in the *Illustrative List of Regulated Chemical Substances* (Attachment 4).

Note 6 Although not included in "Compliance" of chemSHERPA, Omron has added the requirement, including applications, threshold values and exempted applications, based on laws and regulations.

Note 7 Heavy metals (cadmium, hexavalent chromium, lead, mercury) and Polyvinyl chloride (PVC) in packaging materials are substances that OMRON specifically self-added.

Note 8 The statement, "Prolonged skin contact is evident," means that the subject part or material in contact with the skin will fail the EN 1811 test.

Examples includes the following:

Earrings, necklaces, bracelets, chains, anklets (ankle accessories), rings, watches (watch case, strap, buckle), rivets (buttons, fasteners, zippers), and other metal items to be attached to clothing.

Note 9 The following nine product types are subject to the reporting requirement. Report only when applicable.

[1] Cathode-ray tube equipment, [2] Cathode-ray tube, [3] Computer monitor with cathode-ray tube, [4] Cathode-ray tube television, [5] Laptop computer with liquid crystal display, [6] Desktop liquid crystal display, [7] Liquid crystal display screen television, [8] Portable DVD player with liquid crystal display screen, [9] Plasma television

A: Prohibited substances/applications (47 substances)

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
1	SG001	Asbestos	A	00003	All	Intentionally added [ReportingLevel:Product]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII; [USA] Toxic Substances Control Act (TSCA); [Switzerland] Act of Reduction of Risks in Treatment of Specified Hazardous Substances, Preparations, and Articles in Switzerland (ChemRRV) Swiss Ordinance 814.81
2	SG002	Azocolourants and azodyes which form certain aromatic amines	A	00004	Textiles and Leather	0.003wt% (30 ppm) in the finished textile/leather product [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
3	SG006	Cadmium/Cadmium compounds	A Note 4	00010	All, except batteries	0.01 wt% (100 ppm) of total Cd in homogenous material [ReportingLevel:Material] Note 5	[EU] RoHS Directive 2011/65/EU and its amendments; [China] Law Measures for Restriction of the Use of Hazardous Substances in Electrical Appliances and Electronic Products; [Japan] Law for the Promotion of Effective Utilization of Resources; [EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
			A Note 6	00011	(1) Alkali /Manganese / nickel metal hydride batteries excluding button batteries	0.001% (10 ppm) by weight in battery (10ppm) [ReportingLevel:Part] Note 5	[Korea (the Republic of)] Quality Management and Manufactured Product Safety Management Law (Battery Regulation)
			A Note 6	00011	All batteries, except above (1)	0.002% (20 ppm) by weight in battery (20ppm) [ReportingLevel:Part] Note 5	[EU] Battery Directive 2006/66/EC
			A	00166	Video display devices, with a screen size of greater than four inches Note 9	0.01 wt% (100 ppm) of total Cd in homogenous material [ReportingLevel:Material] Note 5	[USA California] Electronic Waste Recycling Act (California RoHS) SB 20, amended by SB 50 and AB 575

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
4	SG008	Chromium (VI) Compounds	A	00012	All	0.1 wt% (1000 ppm) of total Cr+6 in homogenous material [ReportingLevel:Material] Note 5	[EU] RoHS Directive 2011/65/EU and its amendments; [China] Law Measures for Restriction of the Use of Hazardous Substances in Electrical Appliances and Electronic Products; [Japan] Law for the Promotion of Effective Utilization of Resources
			A	00167	Video display devices, with a screen size of greater than four inches Note 9	0.1 wt% (1,000 ppm) of total Cr+6 in homogenous material [ReportingLevel:Material] Note 5	[USA California] Electronic Waste Recycling Act (California RoHS) SB 20, amended by SB 50 and AB 575
5	SG009	Dibutyltin (DBT) compounds	A	00014	All	0.1 wt% (1,000 ppm) of tin in the part [ReportingLevel:Part] Note 5	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
6	SG010	Diocetyl tin (DOT) compounds	A	00015	(a) textile and leather articles intended to come into contact with the skin, (b) childcare articles, (c) two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)	0.1 wt% (1,000 ppm) of tin in the part [ReportingLevel:Part] Note 5	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
7	SG013	Hexabromocyclododecane (HBCDD)	A	00020	All	Intentionally added or 0.01 wt% (100 ppm) in article [ReportingLevel:Article]	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; [EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
8	SG014	Lead/Lead Compounds	A Note 4	00021	All, except batteries	0.1 wt% (1,000 ppm) of total Pb in homogenous material [ReportingLevel:Material] Note 5	[EU] RoHS Directive 2011/65/EU and its amendments; [China] Law Measures for Restriction of the Use of Hazardous Substances in Electrical Appliances and Electronic Products; [Japan] Law for the Promotion of Effective Utilization of Resources; [EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
			A	00022	Consumer products designed or intended primarily for children 12 years of age or younger	0.01 wt% (100 ppm) [ReportingLevel:Product] Note 5	[USA] Consumer Product Safety Improvement Act of 2008 PUBLIC LAW 110-314
			A	00023	Paint and similar surface coatings of toys and other articles intended for use by children	0.009 wt% (90 ppm) in surface coating material [ReportingLevel:Material] Note 5	[USA] Consumer Product Safety Improvement Act of 2008 PUBLIC LAW 110-314
			A	00024	Cables/cords with thermoset or thermoplastic coatings	0.03 wt% (300 ppm) in surface coating material [ReportingLevel:Material] Note 5	[USA California] Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)
			A Note 6	00025	(1) Alkali batteries (except button batteries)	0.004 wt% (40 ppm) in battery [ReportingLevel:Part] Note 5	[China] Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries GB 24427-2009
			A Note 6	00025	Alkali batteries (Button batteries) or Manganese batteries	0.1wt% (1,000 ppm) in battery [ReportingLevel:Part] Note 5	Brazil Conama401/08
			A	00168	Video display devices, with a screen size of greater than four inches Note 9	0.1 wt% (1,000 ppm) of total Pb in homogenous material [ReportingLevel:Material] Note 5	[USA California] Electronic Waste Recycling Act (California RoHS) SB 20, amended by SB 50 and AB 575

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
9	SG019	Mercury/Mercury Compounds	A Note 4	00029	All, except batteries	Intentionally Added or 0.1 wt% (1,000 ppm) of total Hg in homogenous material [ReportingLevel:Material] Note 5	[EU] RoHS Directive 2011/65/EU and its amendments; [China] Law Measures for Restriction of the Use of Hazardous Substances in Electrical Appliances and Electronic Products; [Japan] Law for the Promotion of Effective Utilization of Resources; [EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII; [Canada] Products containing Mercury Regulations SOR/2014-254
			A	00030	Batteries	Intentionally added or 0.0001 wt% (1 ppm) in battery [ReportingLevel:Part] Note 5	[EU] Battery Directive 2006/66/EC; [China] Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries GB 24427-2009; [Taiwan (Province of China)] Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries; [Korea (the Republic of)] Quality Management and Manufactured Product Safety Management Law (Battery Regulation); [USA New York] Environmental Conservation Law, Battery management and disposal § 27-0719
			A	00132	Batteries	0.0005 wt% (5 ppm) of total Hg in homogenous material [ReportingLevel:Material] Note 5	[Canada] Products containing Mercury Regulations SOR/2014-254
			A	00169	Video display devices, with a screen size of greater than four inches Note 9	0.1 wt% (1,000 ppm) of total Hg in homogenous material [ReportingLevel:Material] Note 5	[USA California] Electronic Waste Recycling Act (California RoHS) SB 20, amended by SB 50 and AB 575

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
10	SG021	Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	A	00032	All	Intentionally Added [ReportingLevel:Product]	[EU] Regulation on substances that deplete the ozone layer (EC) No. 1005/2009; [Japan] Law concerning the Protection of the Ozone Layer through the Control of Specified Substances and Other Measures; [USA] Clean Air Act; (Treaty) Montreal Protocol on Substances that Deplete the Ozone Layer
11	SG023	Perfluorooctane sulfonates (PFOS)	A Note 4	00124	Textiles or other coated materials.	Intentionally added or 1 microgram/m2 in coated material [ReportingLevel:Material]	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [Canada] Prohibition of Certain Toxic Substances Regulations SOR/2012-285 and its amendment; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
			A Note 4	00125	All except textiles or other coated materials.	Intentionally added or 0.1 wt% (1,000 ppm) in the part (as the sum of PFOS) [ReportingLevel:Material]	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [Canada] Prohibition of Certain Toxic Substances Regulations SOR/2012-285 and its amendment; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
12	SG024	Phthalates, Selected Group 1 (DEHP, DBP, BBP, DIBP)	A	00036	Children's toy or child care article	0.1 wt% (1,000 ppm) as the sum of the phthalate concentrations in plasticized material [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII; [USA] Consumer Product Safety Improvement Act of 2008 PUBLIC LAW 110- 314

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
12	SG024	Phthalates, Selected Group 1 (DEHP, DBP, BBP, DIBP)	A Note 6	-	All products except for the following(Including packaging materials): - Toys and child care products, - Products to which RoHS Directive is applied, and - Products to which Medical Device Regulation (MDR) is applied - Articles without plasticized materials that come in contact with human oral mucous membrane or with skin for a long period whose use is limited to industrial	0.1 wt% (1,000 ppm) as the sum of the phthalate concentrations in plasticized material [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
13	SG025	Phthalates, Selected Group 2 (DIDP, DINP, DNOP)	A	00037	Children's toy or child care article that can be placed in a child's mouth	0.1 wt% (1,000 ppm) as the sum of the phthalate concentrations in plasticized material [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII; [USA] Consumer Product Safety Improvement Act of 2008 PUBLIC LAW 110-314
14	SG026	Polybrominated biphenyls (PBB)	A	00044	All	0.1 wt% (1,000 ppm) in homogenous material [ReportingLevel:Material]	[EU] RoHS Directive 2011/65/EU and its amendments; [China] Law Measures for Restriction of the Use of Hazardous Substances in Electrical Appliances and Electronic Products; [Japan] Law for the Promotion of Effective Utilization of Resources

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
15	SG027	Polybrominated diphenyl ethers (PBDE)	A	00045	All	Intentionally added or 0.1 wt% (1,000 ppm) in homogenous material [ReportingLevel:Material]	[EU] RoHS Directive 2011/65/EU and its amendments; [China] Law Measures for Restriction of the Use of Hazardous Substances in Electrical Appliances and Electronic Products; [Japan] Law for the Promotion of Effective Utilization of Resources; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
16	SG028	Polychlorinated Biphenyls (PCBs) and specific substitutes	A	00046	All	Intentionally added [ReportingLevel:Product]	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [USA] Toxic Substances Control Act (TSCA); [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
17	SG029	Polychlorinated Terphenyls (PCTs)	A	00047	All	0.005 wt% (50ppm) in material [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
18	SG030	Polychlorinated naphthalenes	A	00048	All	Intentionally added [ReportingLevel:Product]	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
19	SG031	Radioactive substances	A	00049	All	Intentionally added [ReportingLevel:Product]	[USA] Nuclear Regulatory Commission Regulations Title 10 CFR Part 20; [Japan] Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material, and Reactors; [Japan] Law Concerning Prevention from Radiation Hazards due to Radio-Isotopes, etc.; [EU] Directive 2013/59/Euratom

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
20	SG034	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	A	00052	All	Intentionally added or 0.1 wt% (1,000 ppm) in article [ReportingLevel:Article]	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation; [EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [Norway] Regulations relating to restrictions on the manufacture, import, export, sale and use of chemicals and other products hazardous to health and the environment (Consumer Product Regulations) FOR-2004-06-01-922; [Switzerland] Act of Reduction of Risks in Treatment of Specified Hazardous Substances, Preparations, and Articles in Switzerland (ChemRRV) Swiss Ordinance 814.81
21	SG035	Tri-substituted organostannic compounds	A	00055	All	Intentionally added or 0.1 wt% (1,000 ppm) of tin in the part [ReportingLevel:Part] Note 5	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; [Norway] Regulations relating to restrictions on the manufacture, import, export, sale and use of chemicals and other products hazardous to health and the environment (Consumer Product Regulations) FOR-2004-06-01-922
22	SG047	Nickel/Nickel Compounds	A Note 6	00031	when prolonged skin contact is evident Note 8	Intentionally Added [ReportingLevel:Product]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
23	SG054	Perfluorooctanoic acid and its salts	A Note 4	00160	All	Intentionally Added or 0.0000025 wt% (25ppb) of PFOA including its salts in article or mixture [ReportingLevel:Article, Mixture]	[EU] Persistent Organic Pollutants (POPs) Regulation (EU) 2019/1021; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; [Korea (the Republic of)] Persistent Organic Pollutants Control Act

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
24	SG055	PFOA-related compounds	A Note 4	00161	All	Intentionally Added or 0.0001 wt% (1ppm) of one or combined PFOA-related compounds, in article or mixture [ReportingLevel:Article, Mixture]	[EU] Persistent Organic Pollutants (POPs) Regulation (EU) 2019/1021; [Korea (the Republic of)] Persistent Organic Pollutants Control Act
25	SG058	Halogenated flame retardants	A	00171	Of the cases and stands for electronic displays including televisions, monitors and digital signage displays with a screen larger than 100 cm ² , products that do not fall under	Intentionally added [ReportingLevel:Product]	[EU] Commission Regulation (EU) 2019/2021 laying down ecodesign requirements for electronic displays
26	1163-19-5	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	A	00064	All	Intentionally added or 0.1 wt% (1,000 ppm) in article [ReportingLevel:Article]	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation; [USA] Toxic Substances Control Act (TSCA)
27	117-81-7	Bis (2-ethylhexyl)phthalate (DEHP)	A	00038	All	0.1 wt% (1,000 ppm) in homogenous material [ReportingLevel:Material]	[EU] RoHS Directive 2011/65/EU and its amendments; [EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation
28	192-97-2	Benzo[e]pyrene (BeP)	A	00109	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 wt% (1 ppm) in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
			A	00117	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 wt% in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
29	205-82-3	Benzo[j]fluoranthene (BjFA)	A	00113	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 wt% of in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
			A	00121	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 wt% in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
30	205-99-2	Benzo[b]fluoranthene (BbFA)	A	00112	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 wt% in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
			A	00120	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 wt% in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
31	207-08-9	Benzo[k]fluoranthene (BkFA)	A	00114	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 wt% in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
31	207-08-9	Benzo[k]fluoranthene (BkFA)	A	00122	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 wt% in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
32	218-01-9	Chrysen (CHR)	A	00111	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 wt% in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
			A	00119	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 wt% in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
33	3846-71-7	2-benzotriazol-2-yl-4,6-di- tert-butylphenol (UV-320)	A	00035	All	Intentionally added or 0.1 wt% (1,000 ppm) in article [ReportingLevel:Article]	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
34	50-00-0	Formaldehyde	A	00019	Textiles	0.0075 wt% (75 ppm) in textile [ReportingLevel:Material]	[Austria] BGB I 1990/194: Formaldehyde Restriction §2, 12/2/1990; [Lithuania] Hygiene Norm HN 96:2000 (Hygiene Norms and Regulations)
35	50-32-8	Benzo[a]pyrene (BaP)	A	00108	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 wt% (1 ppm) in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
35	50-32-8	Benzo[a]pyrene (BaP)	A	00116	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 wt% (0.5 ppm) in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
36	53-70-3	Dibenzo[a,h]anthracene (DBAhA)	A	00115	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 wt% (1 ppm) in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
			A	00123	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 wt% (0.5 ppm) in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
37	56-35-9	Bis(tributyltin) oxide (TBTO)	A	00054	All	Intentionally added or 0.1 wt% (1,000 ppm) in article [ReportingLevel:Article]	[EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
38	56-55-3	Benzo[a]anthracene (BaA)	A	00110	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 wt% (1 ppm) in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII

No	CAS No/ Substance group ID Note 3	Substance/Substance group	Management Classification	Judgement criteria Note 1			Referenced laws & regulations
				ID	Applications (Reportable applications)	Threshold (Reporting threshld / Reporting Level Note 2)	
38	56-55-3	Benzo[a]anthracene (BaA)	A	00118	Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 wt% (0.5 ppm) in plastic or rubber [ReportingLevel:Material]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
39	624-49-7	Dimethylfumarate (DMF)	A	00016	All	0.00001 wt% (0.1 ppm) in the part [ReportingLevel:Part]	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII
40	68937-41-7	Isopropylphenyl phosphate(PIP(3:1))	A Note 4	00174	All	Intentionally added [ReportingLevel:Product]	[USA] Toxic Substances Control Act (TSCA)
41	84-69-5	Diisobutyl phthalate(DIBP)	A	00041	All	0.1 wt% (1,000 ppm) in homogenous material [ReportingLevel:Material]	[EU] RoHS Directive 2011/65/EU and its amendments; [EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation
42	84-74-2	Dibutyl phthalate (DBP)	A	00039	All	0.1 wt% (1,000 ppm) in homogenous material [ReportingLevel:Material]	[EU] RoHS Directive 2011/65/EU and its amendments; [EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation
43	85-68-7	Benzyl butyl phthalate (BBP)	A	00040	All	0.1 wt% (1,000 ppm) in homogenous material [ReportingLevel:Material]	[EU] RoHS Directive 2011/65/EU and its amendments; [EU] REACH Regulation (EC) No.1907/2006 Candidate List for Authorisation
44	SG006 SG008 SG014 SG019	Heavy metals in Packing materials (lead, cadmium, hexachromium, mercury)	A Note 7	-	Packing materials	Intentionally added or Exceeding 0.01 wt% (100 ppm) of total weight of heavy metals per homogenous material [ReportingLevel:Material] Note 5	94/62/EC (Packaging Waste Directive) • Law in specified US states, Toxics in Packaging
45	9002-86-2	Polyvinyl chloride (PVC) in Packing materials	A Note 7	-	Packing materials	Intentionally added [ReportingLevel:Material]	OMRON's self-regulation
46	133-49-3	Pentachlorothiophenol (PCTP)	A	-	All	Intentionally added [ReportingLevel:Product]	[USA] Toxic Substances Control Act (TSCA)
47	87-68-3	Hexachlorobutadiene (HCBD)	A	-	All	Intentionally added [ReportingLevel:Product]	[USA] Toxic Substances Control Act (TSCA)

Attachment 3. Exempted Application List

The cautions about "Note" used in the list are as follows.

Cautions :

Note 1 "Industrial displays" are electronic displays designed only for use in industrial environments, and at a minimum must satisfy all the following (a) to (d).

(a) Operation must be possible at 0 to 50°C, (b) there must be no condensation at 20 to 90% humidity, (c) at least IP65 must be satisfied, and (d) must satisfy EMC immunity in an industrial environment

CAS No/ Substance group ID	Substance/Substance group	Content criteria_ID	Applications (Reportable applications)	Usage code		Description
				Laws & regulations	Code	
SG006	Cadmium/Cadmium compounds	00010	All, except batteries	RoHS	13(b)-(II)	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex
				RoHS	13(b)-(III)	Cadmium and lead in glazes used for reflectance standards
SG010	Diocetyl tin (DOT) compounds	00015	(a) textile and leather articles intended to come into contact with the skin, (b) childcare articles, (c) two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)	REACH Annex XVII	DOT-1	Any articles other than the following articles- textile articles intended to come into contact with the skin,- gloves,- footwear or part of footwear intended to come into contact with the skin,- walls and floor coverings,- childcare articles,- female hygiene products,- nappies,- two-component room temperature vulcanization molding kits (RTV-2 molding kits)
SG014	Lead/Lead Compounds	00021	All, except batteries	RoHS	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
				RoHS	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
				RoHS	6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 wt%
				RoHS	6(c)	Copper alloy containing up to 4 % lead by weight
				RoHS	7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 wt% or more lead)

CAS No/ Substance group ID	Substance/Substance group	Content criteria_ID	Applications (Reportable applications)	Usage code		Description
				Laws & regulations	Code	
SG014	Lead/Lead Compounds			RoHS	7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound
				RoHS	7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher
				RoHS	13(a)	Lead in white glasses used for optical applications
				RoHS	13(b)-(I)	Lead in ion coloured optical filter glass types
				RoHS	13(b)-(III)	Cadmium and lead in glazes used for reflectance standards
				RoHS	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 mm ² or larger in any semiconductor technology node; — stacked die packages with die of 300 mm ² or larger, or silicon interposers of 300 mm ² or larger.
				RoHS	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 (BaSi ₂ O ₅ :Pb)
				RoHS	32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes
SG019	Mercury/Mercury Compounds	00029	All, except batteries	RoHS	34	Lead in cermet-based trimmer potentiometer elements
				RoHS	1(a)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):For general lighting purposes < 30 W: 2.5 mg
				RoHS	1(b)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):For general lighting purposes ≥ 30 W and < 50 W; 3.5 mg

CAS No/ Substance group ID	Substance/Substance group	Content criteria_ID	Applications (Reportable applications)	Usage code		Description
				Laws & regulations	Code	
SG019	Mercury/Mercury Compounds	00029	All, except batteries	RoHS	1(c)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):For general lighting purposes ≥ 50 W and < 150 W; 5 mg
				RoHS	1(d)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):For general lighting purposes ≥ 150 W; 15 mg
				RoHS	1(e)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):For general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm
				RoHS	1(f)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):For special purposes: 5 mg
				RoHS	1(g)	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):For general lighting purposes < 30 W with a lifetime equal or above 20,000 h: 3.5 mg
				RoHS	2(a)(1)	Mercury in double-capped linear fluorescent lamps for generation lighting purposes not exceeding (per lamp):Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2): 4mg
				RoHS	2(a)(2)	Mercury in double-capped linear fluorescent lamps for generation lighting purposes not exceeding (per lamp):Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5): 3mg
				RoHS	2(a)(3)	Mercury in double-capped linear fluorescent lamps for generation lighting purposes not exceeding (per lamp):Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8): 3.5mg
				RoHS	2(a)(4)	Mercury in double-capped linear fluorescent lamps for generation lighting purposes not exceeding (per lamp):Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12): 3.5 mg

CAS No/ Substance group ID	Substance/Substance group	Content criteria_ID	Applications (Reportable applications)	Usage code		Description
				Laws & regulations	Code	
SG019	Mercury/Mercury Compounds	00029	All, except batteries	RoHS	2(a)(5)	Mercury in double-capped linear fluorescent lamps for generation lighting purposes not exceeding (per lamp): Tri-band phosphor with long lifetime (\geq to 25,000 h): 5 mg
				RoHS	2(b)(3)	Mercury in other fluorescent lamps not exceeding (per lamp): Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9): 15 mg
				RoHS	4(a)	Mercury in other low pressure discharge lamps (per lamp)
				RoHS	4(b)-I	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$: $P \leq 155$ W
				RoHS	4(b)-II	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$: $P < 155$ W and ≤ 405 W
				RoHS	4(b)-III	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$: $P > 405$ W
				RoHS	4(c)-I	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): $P \leq 155$ W
				RoHS	4(c)-II	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): 155 W $< P \leq 405$ W
				RoHS	4(c)-III	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): $P > 405$ W
				RoHS	4(f)	Mercury in other discharge lamps for special purposes not specially mentioned in this Annex
SG023	Perfluorooctane sulfonates (PFOS)	00124	Textiles or other coated materials.	POPs	PFOS-3	Any mist suppressants for non-decorative hard chromium (VI) plating

CAS No/ Substance group ID	Substance/Substance group	Content criteria_ID	Applications (Reportable applications)	Usage code		Description
				Laws & regulations	Code	
SG023	Perfluorooctane sulfonates (PFOS)	00124	Textiles or other coated materials.	POPs	PFOS-98	Any mixtures in concentrations less than 10 mg/kg (0.001wt%), or where the concentration of PFOS is less than 0.1wt% calculated with reference to the mass of structurally or microstructurally distinct parts that contain PFOS, any textiles or other coated materials, or where the amount of PFOS is less than 1µg/m ² of the coated material
				POPs	PFOS-3	Any mist suppressants for non-decorative hard chromium (VI) plating
		00125	All except textiles or other coated materials.	POPs	PFOS-98	Any mixtures in concentrations less than 10 mg/kg (0.001wt%), or where the concentration of PFOS is less than 0.1wt% calculated with reference to the mass of structurally or microstructurally distinct parts that contain PFOS, any textiles or other coated materials, or where the amount of PFOS is less than 1µg/m ² of the coated material
SG054	Perfluorooctanoic acid and its salts	00160	All	POPs	PFOA-1	Concentrations of PFOA-related compounds equal to or below 20 mg/kg (0,002 wt%) where they are present in a substance to be used as a transported isolated intermediate within the meaning of Article 3 point 15 (c) of Regulation (EC) No 1907/2006 and fulfilling the strictly controlled conditions set out in Article 18(4)(a) to (f) of that Regulation for the production of fluorochemicals with a carbon chain equal to or shorter than 6 atoms.
				POPs	PFOA-2	PFOA and its salts equal to or below 1 mg/kg (0,0001 wt%) where they are present in polytetrafluoroethylene (PTFE) micropowders produced by ionising irradiation or by thermal degradation as well as in mixtures and articles for industrial and professional uses containing PTFE micropowders.
				POPs	PFOA-3	Photolithography or etch processes in semiconductor manufacturing
				POPs	PFOA-4	Photographic coatings applied to films
				POPs	PFOA-5	Textiles for oil- and water-repellency for the protection of workers from dangerous liquids that comprise risks to their health and safety

CAS No/ Substance group ID	Substance/Substance group	Content criteria_ID	Applications (Reportable applications)	Usage code		Description
				Laws & regulations	Code	
SG054	Perfluorooctanoic acid and its salts	00160	All	POPs	PFOA-6	Invasive and implantable medical devices
				POPs	PFOA-7	Manufacture of polytetrafluoroethylene (PTFE) and polyvinylidene fluoride (PVDF) for the production of: (i) high-performance, corrosion-resistant gas filter membranes, water filter membranes and membranes for medical textiles, (ii) industrial waste heat exchanger equipment, (iii) industrial sealants capable of preventing leakage of volatile organic compounds and PM2.5 particulates.
				POPs	PFOA-8	Perfluorooctyl bromide containing perfluorooctyl iodide for the purpose of producing pharmaceutical products.
				POPs	PFOA-12	Concentrations of PFOA and its salts and/or PFOA-related compounds equal to or below 2 mg/kg (0,0002 wt%) where they are present in medical devices other than invasive devices and implantable devices
				POPs	PFOA-98	Concentrations of PFOA or any of its salts equal to or below 0,025 mg/kg (0,0000025 wt%) where they are present in substances, mixtures or articles. Or concentrations of any individual PFOA-related compound or a combination of PFOA-related compounds equal to or below 1 mg/kg (0,0001 wt%) where they are present in substances, mixtures or articles.
SG055	PFOA-related compounds	00161	All	POPs	PFOA-1	Concentrations of PFOA-related compounds equal to or below 20 mg/kg (0,002 wt%) where they are present in a substance to be used as a transported isolated intermediate within the meaning of Article 3 point 15 (c) of Regulation (EC) No 1907/2006 and fulfilling the strictly controlled conditions set out in Article 18(4)(a) to (f) of that Regulation for the production of fluorochemicals with a perfluoro carbon chain equal to or shorter than 6 atoms.
				POPs	PFOA-3	Photolithography or etch processes in semiconductor manufacturing
				POPs	PFOA-4	Photographic coatings applied to films

CAS No/ Substance group ID	Substance/Substance group	Content criteria_ID	Applications (Reportable applications)	Usage code		Description
				Laws & regulations	Code	
SG055	PFOA-related compounds	00161	All	POPs	PFOA-5	Textiles for oil- and water-repellency for the protection of workers from dangerous liquids that comprise risks to their health and safety
				POPs	PFOA-6	Invasive and implantable medical devices
				POPs	PFOA-7	Manufacture of polytetrafluoroethylene (PTFE) and polyvinylidene fluoride (PVDF) for the production of: (i) high-performance, corrosion-resistant gas filter membranes, water filter membranes and membranes for medical textiles, (ii) industrial waste heat exchanger equipment, (iii) industrial sealants capable of preventing leakage of volatile organic compounds and PM2.5 particulates.
				POPs	PFOA-8	Perfluorooctyl bromide containing perfluorooctyl iodide for the purpose of producing pharmaceutical products.
				POPs	PFOA-12	Concentrations of PFOA and its salts and/or PFOA-related compounds equal to or below 2 mg/kg (0,0002 wt%) where they are present in medical devices other than invasive devices and implantable devices
				POPs	PFOA-98	Concentrations of PFOA or any of its salts equal to or below 0,025 mg/kg (0,0000025 wt%) where they are present in substances, mixtures or articles. Or concentrations of any individual PFOA-related compound or a combination of PFOA-related compounds equal to or below 1 mg/kg (0,0001 wt%) where they are present in substances, mixtures or articles.
SG058	Halogenated flame retardants	00171	enclosure and stand of electronic displays, including televisions, monitors and digital signage displays with a screen area greater than 100 square centimetres	ErP	HFR-2	Projectors
				ErP	HFR-3	All-in-one video conference systems
				ErP	HFR-4	Medical displays
				ErP	HFR-5	Virtual reality headsets

CAS No/ Substance group ID	Substance/Substance group	Content criteria_ID	Applications (Reportable applications)	Usage code		Description
				Laws & regulations	Code	
SG058	Halogenated flame retardants	00171	enclosure and stand of electronic displays, including televisions, monitors and digital signage displays with a screen area greater than 100 square centimetres	ErP	HFR-6	Displays integrated or to be integrated into products listed into Article 2, point 3(a) and point 4 of Directive 2012/19/EU
				ErP	HFR-7	Displays that are components or subassemblies of products covered by implementing measures adopted under Directive 2009/125/EC
				ErP	HFR-8	Industrial displays Note 1
68937-41-7	Phenol, Isopropylated Phosphate (3:1) (PIP (3:1))	00174	All	PIP	PIP-2	Adhesives and sealants
				PIP	PIP-3	Hydraulic fluids either for the aviation industry or military specifications for safety and performance where no alternative chemical
				PIP	PIP-4	Lubricants and greases
				PIP	PIP-5	New and replacement parts for motor and aerospace vehicles
				PIP	PIP-6	Intermediate in a closed system to produce cyanoacrylate adhesives
				PIP	PIP-7	Specialized engine air filters for locomotive and marine applications
				PIP	PIP-8	Plastic recycled from PIP (3:1)-containing plastic, where no new PIP (3:1) is added during the recycling process
				PIP	PIP-9	Products or articles made from recycled PIP (3:1)-containing plastic, where no new PIP (3:1) was added during the production of the products or articles made of recycled plastic.

Attachment 4. List of Reference Substances

The cautions about "Note" used in the list are as follows.

Cautions :

Note 1 The substance without CAS No. assigned is listed with its SG No. or SN No. of chemSHERPA.

Note 2 The "IEC62474RSL ID" provided in the Illustrative List of Regulated Chemical Substances is ID codes defined in IEC62474RSL.

"IEC62474RSL" is a list of reference substances defined in IEC62474.

You can download the list from the website of the following URL. <http://std.iec.ch/iec62474/iec62474.nsf>

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG001	Asbestos	1332-21-4	Asbestos	-	R00001
		77536-66-4	Actinolite; Asbestos	-	R00002
		12172-73-5	Amosite; Asbestos	-	R00003
		77536-67-5	Anthophyllite; Asbestos	-	R00004
		12001-29-5	Chrysotile; Asbestos	-	R00005
		12001-28-4	Crocidolite; Asbestos	-	R00006
		77536-68-6	Tremolite; Asbestos	-	R00007
		-	Others	-	-
SG002	Azocolourants and azodyes which form certain aromatic amines	92-67-1	4-Aminobiphenyl; xenylamine; Biphenyl-4-ylamine	-	R00008
		92-87-5	Benzidine; 4,4'-diaminobiphenyl; biphenyl-4,4'-ylenediamine	-	R00009
		95-69-2	4-Chloro-o-toluidine	-	R00010
		91-59-8	2-Naphthylamine; beta-naphthylamine	-	R00011
		97-56-3	4-o-Tolylazo-o-toluidine; 4-amino-2',3-dimethylazobenzene; fast garnet GBC base; AAT; o-aminoazotoluene	-	R00012
		99-55-8	5-nitro-o-toluidine	-	R00013
		106-47-8	4-Chloraniline	-	R00014
		615-05-4	2,4-Diaminoanisole; 4-methoxy-m-phenylenediamine	-	R00015
		101-77-9	4,4'-Diaminodiphenylmethane; 4,4'-methylenedianiline	-	R00016
		91-94-1	3,3'-Dichlorobenzidine; 3,3'-dichlorobiphenyl-4,4'-ylenediamine	-	R00017
		119-90-4	3,3'-Dimethoxybenzidine; o-dianisidine	-	R00018

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG002	Azocolourants and azodyes which form certain aromatic amines	119-93-7	3,3'-Dimethylbenzidine; o-tolidine; 4,4'-bi-o-toluidine	-	R00019
		838-88-0	4,4'-Methylenedi-o-toluidine	-	R00020
		120-71-8	6-Methoxy-m-toluidine; p-cresidine	-	R00021
		101-14-4	2,2'-Dichloro-4,4'-methylenedianiline; 4,4'-Methylene bis(2-chloroaniline)	-	R00022
		101-80-4	4,4'-Oxydianiline; p-Aminophenyl ether	-	R00023
		139-65-1	4,4'-Thiodianiline	-	R00024
		95-53-4	o-Toluidine; 2-aminotoluene	-	R00025
		95-80-7	4-Methyl-m-phenylenediamine; 2,4-Toluenediamine	-	R00026
		137-17-7	2,4,5-Trimethylaniline	-	R00027
		90-04-0	2-Methoxyaniline; o-anisidine	-	R00028
		60-09-3	4-amino azobenzene	-	R00029
		-	Others	-	-
SG006	Cadmium/Cadmium compounds	7440-43-9	Cadmium	1.00	R00096
		1306-19-0	Cadmium oxide	0.88	R00097
		1306-23-6	Cadmium sulphide	0.78	R00098
		-	Others	-	-
SG008	Chromium (VI) Compounds	10294-40-3	Barium chromate	0.21	R00101
		13765-19-0	Calcium chromate	0.33	R00102
		7789-06-2	Strontium chromate	0.26	R00106
		13530-65-9	Chromic acid (H ₂ CrO ₄), zinc salt (1:1)	0.29	R00109
		7758-97-6	Lead chromate	0.16	R00170
		12656-85-8	Lead chromate molybdate sulfate red; C.I. Pigment Red 104; [This substance is identified in the Colour Index by Colour Index Constitution Number, C.I. 77605.]	1.00	R00171
		1344-37-2	Lead sulfochromate yellow; C.I. Pigment Yellow 34; [This substance is identified in the Colour Index by Colour Index Constitution Number, C.I. 77603.]	1.00	R00172
		-	Others	-	-
SG009	Dibutyltin (DBT) compounds	818-08-6	Dibutyltin oxide	0.48	R00110

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG009	Dibutyltin (DBT) compounds	1067-33-0	Dibutyltin diacetate	0.34	R00111
		77-58-7	Dibutyltin dilaurate; dibutyl[bis(dodecanoyloxy)]stannane	0.19	R00112
		78-04-6	Dibutyltin maleate	0.34	R00113
		-	Other dibutyltin compounds	-	R00114
SG010	Dioctyltin (DOT) compounds	870-08-6	Dioctyltin oxide, (Stannane, dioctyloxo-)	0.33	R00115
		3648-18-8	Dioctyltin dilaurate	0.16	R00116
		-	Other Dioctyltin compounds	-	R00117
SG013	Hexabromocyclododecane (HBCDD)	25637-99-4	Hexabromocyclododecane	-	R00147
		134237-50-6	alpha-hexabromocyclododecane	-	R00148
		134237-51-7	beta-hexabromocyclododecane	-	R00149
		134237-52-8	gamma-hexabromocyclododecane	-	R00150
		3194-55-6	1,2,5,6,9,10-hexabromocyclodecane	-	R00492
		-	Others	-	-
SG014	Lead/Lead Compounds	7439-92-1	Lead	1.00	R00151
		7446-14-2	Lead sulphates: PbSO ₄	0.68	R00152
		598-63-0	Lead carbonates: Neutral anhydrous carbonate (PbCO ₃)	0.78	R00153
		1319-46-6	Lead carbonates: Trilead-bis(carbonate)-dihydroxide 2Pb CO ₃ -Pb(OH) ₂	0.80	R00154
		6080-56-4	Lead (II) acetate, trihydrate	0.55	R00156
		12069-00-0	Lead selenide (PbSe)	0.72	R00158
		1309-60-0	Lead peroxide	0.87	R00159
		1314-41-6	Orange lead (lead tetroxide)	0.91	R00160
		1314-87-0	Lead sulfide (PbS)	0.87	R00161
		7446-27-7	Trilead bis(orthophosphate)	0.77	R00165
		12060-00-3	Lead titanium trioxide	0.68	R00166
		15739-80-7	Lead sulphates: Pb _x SO ₄	1.00	R00167
		12202-17-4	Tetralead trioxide sulphate	0.85	R00168
		1072-35-1	Stearic acid, lead (2+) salt	0.27	R00169
		7758-97-6	Lead chromate	0.64	R00170

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG014	Lead/Lead Compounds	12656-85-8	Lead chromate molybdate sulfate red; C.I. Pigment Red 104; [This substance is identified in the Colour Index by Colour Index Constitution Number, C.I. 77605.]	1.00	R00171
		1344-37-2	Lead sulfochromate yellow; C.I. Pigment Yellow 34; [This substance is identified in the Colour Index by Colour Index Constitution Number, C.I. 77603.]	1.00	R00172
		13637-76-8	Lead perchloratet	0.51	R00278
		-	Others	-	-
SG019	Mercury/Mercury Compounds	7439-97-6	Mercury	1.00	R00173
		33631-63-9	Mercury, chloro(cyclohexylmethyl)-	0.60	R00174
		7487-94-7	Mercuric chloride	0.74	R00175
		7783-35-9	Mercuric sulfate	0.68	R00176
		10045-94-0	Mercuric nitrate	0.62	R00177
		21908-53-2	Mercuric oxide	0.93	R00178
		1344-48-5	Mercury sulfide (HgS)	0.86	R00179
		7616-83-3	Perchloric acid, mercury(2+) salt	0.50	R00281
		-	Others	-	-
SG021	Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	75-69-4	Trichlorofluoromethane	-	R00180
		75-71-8	Dichlorodifluoromethane	-	R00181
		75-72-9	Chlorotrifluoromethane	-	R00182
		354-56-3	Pentachlorofluoroethane	-	R00183
		76-12-0	Tetrachlorodifluoroethane	-	R00184
		76-12-0	1,1,2,2-Tetrachloro-1,2-difluoroethane		
		76-11-9	1,1,1,2-Tetrachloro-2,2-difluoroethane		
		76-13-1	Trichlorotrifluoroethane	-	R00185
		76-13-1	1,1,2-Trichloro-1,2,2 trifluoroethane		
		354-58-5	1,1,1-Trichloro-2,2,2 trifluoroethane		
		76-14-2	Cryofluorane	-	R00186
		76-15-3	Monochloropentafluoroethane	-	R00187

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG021	Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	422-78-6 135401-87-5 422-78-6 422-81-1	Heptachlorofluoropropane 1,1,1,2,2,3,3-Heptachloro-3-fluoropropane 1,1,1,2,3,3,3-Heptachloro-2-fluoropropane	-	R00188
		3182-26-1	1,1,1,3,3,3-Hexachlor-2,2-difluoropropane	-	R00189
		2354-06-5 134237-31-3	Pentachlorotrifluoropropane	-	R00190
		29255-31-0 2268-46-4 -	Tetrachlorotetrafluoropropane 1,2,2,3-Tetrachloro-1,1,3,3-tetrafluoropropane 1,1,1,3-Tetrachloro-2,2,3,3-tetrafluoropropane	-	R00191
		1599-41-3 1599-41-3 76-17-5 - - 4259-43-2	Trichloropentafluoropropane 1,2,2-Trichloropentafluoropropane 1,2,3-Trichloropentafluoropropane 1,1,2-Trichloropentafluoropropane 1,1,3-Trichloropentafluoropropane 1,1,1-Trichloropentafluoropropane	-	R00192
		661-97-2	1,2-Dichloro-1,1,2,3,3,3-hexafluoropropane	-	R00193
		422-86-6	Heptafluoropropyl chloride	-	R00194
		74-97-5	Chlorobromomethane	-	R00195
		75-61-6	Dibromodifluoromethane	-	R00196
		353-59-3	Bromochlorodifluoromethane	-	R00197
		75-63-8	Bromotrifluoromethane	-	R00198
		124-73-2	Dibromotetrafluoroethane (Halon 2402)	-	R00199
		56-23-5	Carbon tetrachloride	-	R00200
		71-55-6	1,1,1-Trichloroethane (Ethane, 1,1,1-trichloro-)	-	R00201
		74-83-9	Methyl bromide (Bromomethane)	-	R00202
		74-96-4	Bromoethane (ethyl bromide)	-	R00203
		2314-97-8	Trifluoroiodomethane (trifluoromethyl iodide)	-	R00205
		74-87-3	Chloromethane (methyl chloride)	-	R00206
		1868-53-7	Dibromofluoromethane	-	R00207
		1511-62-2	Bromodifluoromethane	-	R00208

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SG021	Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	373-52-4	Bromofluoromethane	-	R00209
		306-80-9	1,1,2,2-tetrabromo-1-fluoro-ethane	-	R00210
		-	Tribromodifluoroethane	-	R00211
		354-04-1	1,2-Dibromo-1,1,2-trifluoroethane	-	R00212
		124-72-1	Bromotetrafluoroethane (HBFC-124 B1)	-	R00213
		-	Tribromofluoroethane	-	R00214
		75-82-1	1,2-Dibromo-1,1-difluoroethane	-	R00215
		421-06-7	2-Bromo-1,1,1-trifluoroethane	-	R00216
		358-97-4	1,2-Dibromo-1-fluoroethane	-	R00217
		420-47-3	1-Bromo-1,1-difluoroethane	-	R00218
		762-49-2	1-Bromo-2-fluoroethane	-	R00219
		-	Hexabromofluoropropane	-	R00220
		-	Pentabromodifluoropropane	-	R00221
		-	Tetrabromotrifluoropropane	-	R00222
		-	Tribromotetrafluoropropane	-	R00223
		431-78-7	Dibromopentafluoropropane (HBFC-225 B2)	-	R00224
		2252-78-0	1-Bromo-1,1,2,3,3,3-hexafluoropropane	-	R00225
		-	Pentabromofluoropropane	-	R00226
		-	Tetrabromodifluoropropane	-	R00227
		-	Tribromotrifluoropropane	-	R00228
		-	Dibromotetrafluoropropane	-	R00229
		460-88-8	1-bromo-1,1,3,3,3-pentafluoro-propane	-	R00230
		-	Tetrabromofluoropropane	-	R00231
		70192-80-2	Tribromodifluoropropane (HBFC-242 B3)	-	R00232
		431-21-0	2,3-Dibromo-1,1,1-trifluoropropane	-	R00233
		679-84-5	3-Bromo-1,1,2,2-tetrafluoropropane	-	R00234
		75372-14-4	C3H4FBr3	-	R00235
		460-25-3	1,3-Dibromo-1,1-difluoropropane	-	R00236

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SG021	Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	421-46-5	Bromotrifluoropropane (HBFC-253 B1)	-	R00237
		51584-26-0	1,3-Dibromo-1-fluoropropane	-	R00238
		-	Bromodifluoropropane	-	R00239
		1871-72-3	Propane, 1-bromo-2-fluoro-	-	R00240
		75-43-4	Dichlorofluoromethane	-	R00241
		75-45-6	Chlorodifluoromethane	-	R00242
		593-70-4	Chlorofluoromethane	-	R00243
		134237-32-4 354-14-3 354-11-0	Tetrachlorofluoroethane 1,1,2,2-Tetrachloro-1-fluoroethane 1,1,1,2-Tetrachloro-2-fluoroethane	-	R00244
		41834-16-6 354-21-2 354-15-4 354-12-1	Trichlorodifluoroethane 1,2,2-Trichloro-1,1-difluoroethane 1,1,2-Trichloro-1,2-difluoroethane 1,1,1-Trichloro-2,2-difluoroethane	-	R00245
		34077-87-7 306-83-2 354-23-4 90454-18-5 812-04-4	Dichlorotrifluoroethane 1,1-Dichloro-2,2,2-trifluoroethane 1,2-Dichloro-1,1,2-trifluoroethane 1,1-Dichloro-1,2,2-trifluoroethane	-	R00246
		63938-10-3 2837-89-0 354-25-6	Chlorotetrafluoroethane 2-chloro-1,1,1,2-tetrafluoroethane 1-chloro-1,1,2,2-tetrafluoroethane	-	R00247
		27154-33-2; (134237-34-6) 359-28-4 811-95-0 2366-36-1	Trichlorofluoroethane 1,1,2-Trichloro-2-fluoroethane 1,1,2-Trichloro-1-fluoroethane 1,1,1-Trichloro-2-fluoroethane	-	R00248

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG021	Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	25915-78-0 431-06-1 471-43-2 1649-08-7 1842-05-3	Dichlorodifluoroethane 1,2-Dichloro-1,2-difluoroethane 1,1-Dichloro-2,2-difluoroethane 1,2-Dichloro-1,1-difluoroethane 1,1-Dichloro-1,2-difluoroethane	-	R00249
		1330-45-6 431-07-2 1330-45-6 75-88-7 421-04-5	Chlorotrifluoroethane 1-Chloro-1,2,2-trifluoroethane 2-Chloro-1,1,1-trifluoroethane 1-Chloro-1,1,2-trifluoroethane	-	R00250
		1717-00-6; (25167-88-8) 430-57-9 430-53-5 1717-00-6	Dichlorofluoroethane 1,2-Dichloro-1-fluoroethane 1,1-Dichloro-2-fluoroethane 1,1-Dichloro-1-fluoroethane	-	R00251
		25497-29-4 338-65-8 75-68-3 338-64-7	Chlorodifluoroethane 2-Chloro-1,1-Difluoroethane 1-Chloro-1,1-difluoroethane 1-Chloro-1,2-difluoroethane	-	R00252
		110587-14-9 762-50-5 1615-75-4	Chlorofluoroethane 1-Chloro-2-fluoroethane 1-Chloro-1-fluoroethane	-	R00253
		134237-35-7 29470-94-8 422-26-4	Hexachlorofluoropropane 1,1,1,2,2,3-Hexachloro-3-fluoropropane	-	R00254
		134237-36-8 422-49-1 422-30-0	Pentachlorodifluoropropane 1,1,1,3,3-pentachloro-2,2-difluoropropane 1,2,2,3,3-pentachloro-1,1-difluoropropane	-	R00255
		134237-37-9 422-52-6 422-50-4	Tetrachlorotrifluoropropane 1,1,3,3-Tetrachloro-1,2,2-trifluoropropane 1,1,1,3-Tetrachloro-2,2,3-trifluoropropane	-	R00256

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG021	Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	134237-38-0 , 422-54-8 , 422-53-7, 422-51-5	Trichlorotetrafluoropropane 1,3,3-Trichloro-1,1,2,2-tetrafluoropropane 1,1,3-Trichloro-1,2,2,3-tetrafluoropropane 1,1,1-Trichloro-2,2,3,3-tetrafluoropropane	-	R00257
		127564-92-5 128903-21-9 422-48-0 422-44-6 422-56-0 507-55-1 13474-88-9 431-86-7 136013-79-1 111512-56-2	Dichloropentafluoropropane 2,2-Dichloro-1,1,1,3,3-pentafluoropropane 2,3-Dichloro-1,1,1,2,3-pentafluoropropane 1,2-Dichloro-1,1,2,3,3-pentafluoropropane 3,3-Dichloro-1,1,1,2,2-pentafluoropropane 1,3-Dichloro-1,1,2,2,3-pentafluoropropane 1,1-Dichloro-1,2,2,3,3-pentafluoropropane 1,2-Dichloro-1,1,3,3,3-pentafluoropropane 1,3-Dichloro-1,1,2,3,3-pentafluoropropane 1,1-Dichloro-1,2,3,3,3-pentafluoropropane	-	R00258
		134308-72-8 431-87-8	Chlorohexafluoropropane 2-Chloro-1,1,1,3,3,3-hexafluoro-propane	-	R00259
		134190-48-0 421-94-3	Pentachlorofluoropropane 1,1,1,2,3-pentachloro-2-fluoro-propane	-	R00260
		134237-39-1 460-89-9	Tetrachlorodifluoropropane 1,1,1,3-Tetrachloro-3,3-difluoropropane	-	R00261
		134237-40-4 7125-83-9	Trichlorotrifluoropropane 1,1,1-Trichloro-3,3,3-trifluoropropane	-	R00262
		127564-83-4 425-94-5	Dichlorotetrafluoropropane 1,2-Dichloro-1,2,3,3-tetrafluoropropane	-	R00263
		134237-41-5 460-92-4	Chloropentafluoropropane 1-Chloro-1,1,3,3,3-pentafluoropropane	-	R00264
		134190-49-1 666-27-3	Tetrachlorofluoropropane 1,1,2,3-Tetrachloro-1-fluoropropane	-	R00265
		134237-42-6 460-63-9	Trichlorodifluoropropane 1,3,3,Trichloro-1,1-difluoropropane	-	R00266

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG021	Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)	134237-43-7 7125-99-7 338-75-0 460-69-5	Dichlorotrifluoropropane 1,1-Dichloro-1,2,2-trifluoropropane 2,3-Dichloro-1,1,1-trifluoropropane 3,3-Dichloro-1,1,1-trifluoropropane	-	R00267
		134190-50-4 679-85-6 421-75-0	Chlorotetrafluoropropane 3-Chloro-1,1,2,2-tetrafluoropropane 1-Chloro-1,1,2,2-tetrafluoropropane	-	R00268
		134190-51-5 818-99-5 421-41-0	Trichlorofluoropropane 1,1,3-Trichloro-1-fluoropropane 1,1,2-Trichloro-1-fluoropropane	-	R00269
		134190-52-6 819-00-1	Dichlorodifluoropropane 1,3-Dichloro-1,1-difluoropropane	-	R00270
		134237-44-8 460-35-5	Chlorotrifluoropropane 3-Chloro-1,1,1-trifluoropropane	-	R00271
		134237-45-9 7799-56-6 420-97-3	Dichlorofluoropropane 1,1-Dichloro-1-fluoropropane 1,2-Dichloro-2-fluoro-propane	-	R00272
		134190-53-7 420-99-5 102738-79-4 421-02-3	Chlorodifluoropropane 1-Chloro-2,2-difluoropropane 2-Chloro-1,3-difluoropropane 1-Chloro-1,1-difluoropropane	-	R00273
		134190-54-8 420-44-0 430-55-7	Chlorofluoropropane 2-Chloro-2-fluoropropane 1-Chloro-1-fluoropropane	-	R00274
		-	Others	-	-
SG023	Perfluorooctane sulfonates (PFOS)	306975-62-2	2-Propenoic acid, 2-methyl-, dodecyl ester, polymers with 2-[methyl[(perfluoro-C4-8-alkyl)- sulfonyl]amino]ethyl acrylate and vinylidene chloride	-	R00287
		2991-51-7	Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, potassium salt	-	R00288
		-	Others	-	-
SG024	Phthalates, Selected Group 1 (DEHP, DBP, BBP, DIBP)	85-68-7	Benzyl butyl phthalate (BBP)	-	R00290

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SG024	Phthalates, Selected Group 1 (DEHP, DBP, BBP, DIBP)	84-74-2	Dibutyl phthalate (DBP)	-	R00291
		117-81-7	Bis(2-ethylhexyl) phthalate (DEHP); di-(2-ethylhexyl) phthalate	-	R00292
		84-69-5	Diisobutyl phthalate (DIBP)	-	R00513
SG025	Phthalates, Selected Group 2 (DIDP, DINP, DNOP)	26761-40-0 68515-49-1	Diisodecyl phthalate (DIDP)	-	R00293
		28553-12-0 68515-48-0	Diisononyl phthalate (DINP)	-	R00294
		117-84-0	Di-n-octyl phthalate (DNOP)	-	R00295
SG026	Polybrominated biphenyls (PBB)	59536-65-1	Polybromobiphenyls; Polybrominatedbiphenyls (PBB)	-	R00296
		92-86-4	1,1'-Biphenyl, 4,4'-dibromo-	-	R00297
		2052-07-5	2-bromobiphenyl	-	R00298
		2113-57-7	3-bromobiphenyl	-	R00299
		92-66-0	4-Bromobiphenyl	-	R00300
		59080-34-1	1,1'-Biphenyl, 2,2',5-tribromo-	-	R00301
		40088-45-7	1,1'-Biphenyl, 2,3,3',4'-tetrabromo-	-	R00302
		56307-79-0	Pentabromobiphenyl	-	R00303
		59080-40-9	1,1'-Biphenyl, 2,2',4,4',5,5'-hexabromo-	-	R00304
		36355-01-8	Hexabromobiphenyl	-	R00305
		67774-32-7	Firemaster FF-1	-	R00306
		35194-78-6	Heptabromobiphenyl	-	R00307
		61288-13-9	Bromkal 80	-	R00308
		27753-52-2	Nonabromo-1,1'-biphenyl	-	R00309
		13654-09-6	Decabromobiphenyl	-	R00310
		-	Others	-	-
SG027	Polybrominated diphenyl ethers (PBDE)	101-55-3	Monobromodiphenyl ether	-	R00311
		2050-47-7	Dibromodiphenyl ether	-	R00312
		49690-94-0	Tribromodiphenyl ether	-	R00313
		40088-47-9	Tetrabromodiphenyl ether C ₁₂ H ₆ Br ₄ O	-	R00314
		36483-60-0	Hexabromodiphenyl ether C ₁₂ H ₄ Br ₆ O	-	R00315

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SG027	Polybrominated diphenyl ethers (PBDE)	68928-80-3	Heptabromodiphenyl ether C ₁₂ H ₃ Br ₇ O	-	R00316
		63936-56-1	Nonabromodiphenyl ether	-	R00317
		1163-19-5	Bis(pentabromophenyl)ether (decabromodiphenyl ether; decaBDE)	-	R00318
		32534-81-9	Pentabromodiphenyl ether C ₁₂ H ₅ Br ₅ O	-	R00319
		32536-52-0	Diphenylether, octabromo derivative C ₁₂ H ₂ Br ₈ O	-	R00320
		-	Others	-	-
SG028	Polychlorinated Biphenyls (PCBs) and specific substitutes	1336-36-3	Polychlorinated Biphenyls (PCB)	-	R00321
		76253-60-6	Monomethyl-tetrachlorodiphenyl methane Trade name: Ugilec 141	-	R00322
		81161-70-8	Monomethyl-dichloro-diphenyl methane Trade name: Ugilec 121 Ugilec 21	-	R00323
		99688-47-8	Monomethyl-dibromo-diphenyl methane bromobenzylbromotoluene, mixture of isomers Trade name: DBBT	-	R00324
		-	Others	-	-
SG029	Polychlorinated Terphenyls (PCTs)	61788-33-8	Polychlorinated terphenyls (PCTs)	-	R00325
		-	Others	-	-
SG030	Polychlorinated naphthalenes	70776-03-3	Polychlorinated naphthalenes	-	R00326
		90-13-1	1-Chloronaphthalene	-	R00389
		91-58-7	2-Chloronaphthalene	-	R00390
		1825-30-5	1,5-Dichloronaphthalene	-	R00391
		1825-31-6	1,4-Dichloronaphthalene	-	R00392
		2050-69-3	1,2-Dichloronaphthalene	-	R00393
		2050-72-8	1,6-Dichloronaphthalene	-	R00394
		2050-73-9	1,7-Dichloronaphthalene	-	R00395
		2050-74-0	1,8-Dichloronaphthalene	-	R00396
		2050-75-1	2,3-Dichloronaphthalene	-	R00397
		2065-70-5	2,6-Dichloronaphthalene	-	R00398
		2198-75-6	1,3-Dichloronaphthalene	-	R00399
		2198-77-8	2,7-Dichloronaphthalene	-	R00400
		25586-43-0	Chloronaphthalene	-	R00401
		28699-88-9	Dichloronaphthalene	-	R00402

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SG030	Polychlorinated naphthalenes	1321-64-8	Pentachloronaphthalene	-	R00403
		1321-65-9	Naphthalene, trichloro-	-	R00404
		1335-87-1	Hexachloronaphthalene	-	R00405
		1335-88-2	Tetrachloronaphthalene	-	R00406
		2234-13-1	Perchloronaphthalene; 1,2,3,4,5,6,7,8-Octachloronaphthalene	-	R00407
		2437-54-9	1,4,6-Trichloronaphthalene	-	R00408
		2437-55-0	1,4,5-Trichloronaphthalene	-	R00409
		3432-57-3	1,4,5,8-Tetrachloronaphthalene	-	R00410
		6529-87-9	1,2,4,8-Tetrachloronaphthalene	-	R00411
		6733-54-6	1,2,4,5-Tetrachloronaphthalene	-	R00412
		17062-87-2	1,2,3,6,7,8-Hexachloronaphthalene	-	R00413
		20020-02-4	1,2,3,4-Tetrachloronaphthalene	-	R00414
		31604-28-1	1,3,5,8-Tetrachloronaphthalene	-	R00415
		32241-08-0	Heptachloronaphthalene	-	R00416
		34588-40-4	2,3,6,7-Tetrachloronaphthalene	-	R00417
		50402-51-2	1,2,4-Trichloronaphthalene	-	R00418
		50402-52-3	1,2,3-Trichloronaphthalene	-	R00419
		51570-43-5	1,3,5-Trichloronaphthalene	-	R00420
		51570-44-6	1,2,6-Trichloronaphthalene	-	R00421
		51570-45-7	1,2,4,6-Tetrachloronaphthalene	-	R00422
		53555-63-8	1,2,3,5-Tetrachloronaphthalene	-	R00423
		53555-64-9	1,3,5,7-Tetrachloronaphthalene	-	R00424
		53555-65-0	1,2,3,5,7-Pentachloronaphthalene	-	R00425
		55720-33-7	1,2,5-Trichloronaphthalene	-	R00426
		55720-34-8	1,2,7-Trichloronaphthalene	-	R00427
		55720-35-9	1,2,8-Trichloronaphthalene	-	R00428
		55720-36-0	1,3,6-Trichloronaphthalene	-	R00429
		55720-37-1	1,3,7-Trichloronaphthalene	-	R00430
		55720-38-2	1,3,8-Trichloronaphthalene	-	R00431

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SG030	Polychlorinated naphthalenes	55720-39-3	1,6,7-Trichloronaphthalene	-	R00432
		55720-40-6	2,3,6-Trichloronaphthalene	-	R00433
		55720-41-7	1,2,3,7-Tetrachloronaphthalene	-	R00434
		55720-42-8	1,3,6,7-Tetrachloronaphthalene	-	R00435
		55720-43-9	1,4,6,7-Tetrachloronaphthalene	-	R00436
		58863-14-2	1,2,3,4,5,6,7-Heptachloronaphthalene	-	R00437
		58863-15-3	1,2,3,4,5,6,8-Heptachloronaphthalene	-	R00438
		58877-88-6	1,2,3,4,5,6-Hexachloronaphthalene	-	R00439
		67922-21-8	1,2,4,7-Tetrachloronaphthalene	-	R00440
		67922-22-9	1,2,5,6-Tetrachloronaphthalene	-	R00441
		67922-23-0	1,2,5,7-Tetrachloronaphthalene	-	R00442
		67922-24-1	1,2,6,8-Tetrachloronaphthalene	-	R00443
		67922-25-2	1,2,3,4,5-Pentachloronaphthalene	-	R00444
		67922-26-3	1,2,3,4,6-Pentachloronaphthalene	-	R00445
		67922-27-4	1,2,3,4,5,7-Hexachloronaphthalene	-	R00446
		90948-28-0	1,2,4,5,6,8-Hexachloronaphthalene	-	R00447
		103426-92-2	1,2,4,5,7,8-Hexachloronaphthalene	-	R00448
		103426-93-3	1,2,3,4,5,8-Hexachloronaphthalene	-	R00449
		103426-94-4	1,2,3,5,7,8-Hexachloronaphthalene	-	R00450
		103426-95-5	1,2,3,5,6,8-Hexachloronaphthalene	-	R00451
		103426-96-6	1,2,3,4,6,7-Hexachloronaphthalene	-	R00452
		103426-97-7	1,2,3,5,6,7-Hexachloronaphthalene	-	R00453
		149864-78-8	1,2,3,6-Tetrachloronaphthalene	-	R00454
		149864-79-9	1,2,6,7-Tetrachloronaphthalene	-	R00455
		149864-80-2	1,2,5,8-Tetrachloronaphthalene	-	R00456
		149864-81-3	1,2,3,8-Tetrachloronaphthalene	-	R00457
		149864-82-4	1,2,7,8-Tetrachloronaphthalene	-	R00458
		150205-21-3	1,2,3,7,8-Pentachloronaphthalene	-	R00459
		150224-15-0	1,3,6,8-Tetrachloronaphthalene	-	R00460

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG030	Polychlorinated naphthalenes	150224-16-1	1,2,3,6,7-Pentachloronaphthalene	-	R00461
		150224-17-2	1,2,4,6,7-Pentachloronaphthalene	-	R00462
		150224-18-3	1,2,3,5,6-Pentachloronaphthalene	-	R00463
		150224-19-4	1,2,4,5,7-Pentachloronaphthalene	-	R00464
		150224-20-7	1,2,4,5,6-Pentachloronaphthalene	-	R00465
		150224-21-8	1,2,4,7,8-Pentachloronaphthalene	-	R00466
		150224-22-9	1,2,4,6,8-Pentachloronaphthalene	-	R00467
		150224-23-0	1,2,3,6,8-Pentachloronaphthalene	-	R00468
		150224-24-1	1,2,3,5,8-Pentachloronaphthalene	-	R00469
		150224-25-2	1,2,4,5,8-Pentachloronaphthalene	-	R00470
		-	Others	-	-
SG031	Radioactive substances	7440-61-1	Uranium	-	R00328
		10043-92-2	Radon	-	R00329
		14596-10-2	Americium-241	-	R00330
		7440-29-1	Thorium	-	R00331
		10045-97-3	Cesium-137	-	R00332
		10098-97-2	Strontium-90	-	R00333
		-	Other radioactive substances	-	R00334
SG034	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	-	R00337
		108171-26-2	Alkanes, C10-12, chloro	-	R00338
		71011-12-6	Alkanes, C12-13, chloro	-	R00339
		61788-76-9	Alkanes, chloro; chloroparaffins	-	R00340
		-	Other Short Chain Chlorinated Paraffins	-	R00341
SG035	Tri-substituted organostannic compounds	1803-12-9	Triphenyltin dimethyldithiocarbamate	0.25	R00342
		379-52-2	Stannane, fluorotriphenyl-	0.32	R00343
		900-95-8	Stannane, acetoxypentaphenyl-	0.29	R00344
		639-58-7	Triphenyl tin chloride	0.31	R00345
		76-87-9	Triphenyltin hydroxide	0.32	R00346

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG035	Tri-substituted organostannic compounds	18380-71-7	Triphenyltin fattyacid((9-11)salt)	0.23	R00347
		18380-72-8	Triphenyltin fattyacid((9-11)salt)	0.23	R00347
		47672-31-1	Triphenylstannyl decanoate	0.23	R00347
		94850-90-5	Triphenyltin fattyacid((9-11)salt)	0.22	R00347
		7094-94-2	(Chloroacetoxy)triphenylstannane	0.27	R00348
		2155-70-6	Tributyltin methacrylate	0.32	R00349
		6454-35-9	Bis(tributylstannyl)Fumarate	0.34	R00350
		1983-10-4	Stannane, tributylfluoro-	0.38	R00351
		31732-71-5	Bis(tributyltin)2,3-dibromosuccinate	0.28	R00352
		56-36-0	Tributyltin acetate	0.34	R00353
		3090-36-6	Tributyl(lauroxyloxy)stannane	0.24	R00354
		4782-29-0	Bis(tributyltin)phthalate	0.32	R00355
		67772-01-4	Copolymer of alkyl(c=8) acrylate,methyl methacrylate and tributyltin methacrylate	0.18	R00356
		6517-25-5	Tributyltin sulfamate	0.31	R00357
		14275-57-1	Bis(tributyltin) maleate	0.34	R00358
		1461-22-9	Tributyltinchloride	0.36	R00359
		7342-38-3			
		85409-17-2	Tributyltin naphthenate; Stannane, tributyl-, mono(naphthenoyloxy) derivs.	1.00	R00360
		26239-64-5	[1R-(1.alpha.,4a.beta.,4b.alpha.,10a.alpha.)]-Tributyl[[[1,2,3,4,4a,4b,5,6,10,10a-decahydro-7-isopropyl-1,4a-dimethyl-1-phenanthryl]carbonyl]oxy]stannane	0.20	R00361
		-	Other tri-substituted organostannic compounds	-	R00362
SG047	Nickel/Nickel Compounds	7440-02-0	Nickel	-	R00478
		1313-99-1	Nickel monoxide	-	R00479
		7718-54-9	Nickel dichloride	-	R00480
		7791-20-0	Nickel(II) chloride hexahydrate (1:2:6)	-	R00481
		7786-81-4	Nickel sulfate	-	R00482
		10101-97-0	Nickel(II) sulfate hexahydrate (1:1:6)	-	R00483
		10101-98-1	Sulfuric acid, nickel(2+) salt (1:1), heptahydrate	-	R00484

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG047	Nickel/Nickel Compounds	8007-18-9	Antimony nickel titanium oxide yellow	-	R00485
		68611-43-8	Nickel niobium titanium yellow rutile	-	R00486
		68186-85-6	C.I. Pigment Green 50	-	R00487
		-	Others	-	-
SG054	Perfluorooctanoic acid and its salts	335-67-1	Perfluorooctanoic acid (PFOA)	-	R00499
		3825-26-1	Ammoniumpentadecafluorooctanoate	-	R00500
		335-95-5	Sodium salt of PFOA	-	R00501
		2395-00-8	Potassium salt of PFOA	-	R00502
		335-93-3	Silver salt of PFOA	-	R00503
		-	Others	-	-
SG055	PFOA-related compounds	335-67-1	Perfluorooctanoic acid (PFOA)	-	R00504
		3825-26-1	Ammoniumpentadecafluorooctanoate	-	R00505
		335-95-5	Sodium salt of PFOA	-	R00506
		2395-00-8	Potassium salt of PFOA	-	R00507
		335-93-3	Silver salt of PFOA	-	R00508
		335-66-0	Pentadecafluorooctyl fluoride	-	R00509
		376-27-2	Methylperfluorooctanoate	-	R00510
		3108-24-5	Ethylperfluorooctanoate	-	R00511
		678-39-7	8-2 telomer alcohol:: 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-	-	R00512
		1996-88-9	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester	-	R00724
SG058	Halogenated Flame Retardants	-	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(14) [Aliphatic/alicyclic brominated compounds]	-	R00521
		-	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(15) [Aliphatic/alicyclic brominated compounds in combination with antimony compounds]	-	R00522

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG058	Halogenated Flame Retardants	-	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(16) [Aromatic brominated compounds excluding brominated diphenyl ether and biphenyls]	-	R00523
		-	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(17) [Aromatic brominated compounds excluding brominated diphenyl ether and biphenyls] in combination with antimony compounds]	-	R00524
		-	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(22) [Aliphatic/alicyclic chlorinated and brominated compounds]	-	R00525
		-	Brominated flame retardant which comes under notation of ISO 1043-4 code number FR(42) [Brominated organic phosphorus compounds]	-	R00526
		-	Other Brominated Flame Retardants	-	R00527
		-	Other Short Chain Chlorinated Paraffins	-	R00528
		-	Other Chlorinated Flame Retardants	-	R00529
		101-55-3	Monobromodiphenyl ether	-	R00530
		103426-92-2	1,2,4,5,7,8-Hexachloronaphthalene	-	R00531
		103426-93-3	1,2,3,4,5,8-Hexachloronaphthalene	-	R00532
		103426-94-4	1,2,3,5,7,8-Hexachloronaphthalene	-	R00533
		103426-95-5	1,2,3,5,6,8-Hexachloronaphthalene	-	R00534
		103426-96-6	1,2,3,4,6,7-Hexachloronaphthalene	-	R00535
		103426-97-7	1,2,3,5,6,7-Hexachloronaphthalene	-	R00536
		108171-26-2	Alkanes, C10-12, chloro	-	R00537
		115-96-8	Tris(2-chloroethyl)phosphate	-	R00715
		1163-19-5	Bis(pentabromophenyl)ether (decabromodiphenyl ether; decaBDE)	-	R00538
		118-79-6	2,4,6-tribromo-phenol	-	R00539
		125997-20-8	Chlorinated and brominated phosphate ester	-	R00540
		1321-64-8	Pentachloronaphthalene	-	R00541
		1321-65-9	Naphthalene, trichloro-	-	R00542
		1335-87-1	Hexachloronaphthalene	-	R00543
		1335-88-2	Tetrachloronaphthalene	-	R00544
		134237-50-6	alpha-hexabromocyclododecane	-	R00545

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG058	Halogenated Flame Retardants	134237-51-7	beta-hexabromocyclododecane	-	R00546
		134237-52-8	gamma-hexabromocyclododecane	-	R00547
		135229-48-0	Brominated epoxy resin end-capped with tribromophenol	-	R00548
		13560-89-9	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.1 ^{6,9} .0 ^{2,13} .0 ^{5,10}]octadeca-7,15-diene ("Dechlorane Plus"™)	-	R00549
		135821-03-3	(1S,2S,5R,6R,9S,10S,13R,14R)-1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.1 ^{6,9} .0 ^{2,13} .0 ^{5,10}]octadeca-7,15-diene	-	R00550
		135821-74-8	(1S,2S,5S,6S,9R,10R,13R,14R)-1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.1 ^{6,9} .0 ^{2,13} .0 ^{5,10}]octadeca-7,15-diene	-	R00551
		13654-09-6	Decabromobiphenyl	-	R00552
		13674-84-5	Tris(2-chloro-1-methylethyl) phosphate	-	R00553
		13674-87-8	Tris(1,3-dichloro-2-propyl)phosphate	-	R00554
		139638-58-7	Brominated epoxy resin end-capped with tribromophenol	-	R00555
		149864-78-8	1,2,3,6-Tetrachloronaphthalene	-	R00556
		149864-79-9	1,2,6,7-Tetrachloronaphthalene	-	R00557
		149864-80-2	1,2,5,8-Tetrachloronaphthalene	-	R00558
		149864-81-3	1,2,3,8-Tetrachloronaphthalene	-	R00559
		149864-82-4	1,2,7,8-Tetrachloronaphthalene	-	R00560
		150205-21-3	1,2,3,7,8-Pentachloronaphthalene	-	R00561
		150224-15-0	1,3,6,8-Tetrachloronaphthalene	-	R00562
		150224-16-1	1,2,3,6,7-Pentachloronaphthalene	-	R00563
		150224-17-2	1,2,4,6,7-Pentachloronaphthalene	-	R00564
		150224-18-3	1,2,3,5,6-Pentachloronaphthalene	-	R00565
		150224-19-4	1,2,4,5,7-Pentachloronaphthalene	-	R00566
		150224-20-7	1,2,4,5,6-Pentachloronaphthalene	-	R00567
		150224-21-8	1,2,4,7,8-Pentachloronaphthalene	-	R00568
		150224-22-9	1,2,4,6,8-Pentachloronaphthalene	-	R00569
		150224-23-0	1,2,3,6,8-Pentachloronaphthalene	-	R00570
		150224-24-1	1,2,3,5,8-Pentachloronaphthalene	-	R00571

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG058	Halogenated Flame Retardants	150224-25-2	1,2,4,5,8-Pentachloronaphthalene	-	R00572
		155613-93-7	Octabromo-1,1,3-trimethyl-1-phenylindane (FR-1808)	-	R00573
		17062-87-2	1,2,3,6,7,8-Hexachloronaphthalene	-	R00574
		171091-06-8	Dibromo-styrene grafted PP	-	R00575
		1825-30-5	1,5-Dichloronaphthalene	-	R00576
		1825-31-6	1,4-Dichloronaphthalene	-	R00577
		19186-97-1	Tris(tribromo-neopentyl) phosphate	-	R00578
		20020-02-4	1,2,3,4-Tetrachloronaphthalene	-	R00579
		2050-47-7	Dibromodiphenyl ether	-	R00580
		2050-69-3	1,2-Dichloronaphthalene	-	R00581
		2050-72-8	1,6-Dichloronaphthalene	-	R00582
		2050-73-9	1,7-Dichloronaphthalene	-	R00583
		2050-74-0	1,8-Dichloronaphthalene	-	R00584
		2050-75-1	2,3-Dichloronaphthalene	-	R00585
		2052-07-5	2-bromobiphenyl	-	R00586
		20566-35-2	2-Hydroxy-propyl-2-(2-hydroxy-ethoxy)-ethyl-TBP	-	R00587
		2065-70-5	2,6-Dichloronaphthalene	-	R00588
		2113-57-7	3-bromobiphenyl	-	R00589
		21850-44-2	1,1'-(isopropylidene)bis[3,5-dibromo-4-(2,3-dibromopropoxy)benzene]	-	R00590
		2198-75-6	1,3-Dichloronaphthalene	-	R00591
		2198-77-8	2,7-Dichloronaphthalene	-	R00592
		2234-13-1	Perchloronaphthalene; 1,2,3,4,5,6,7,8-Octachloronaphthalene	-	R00593
		2437-54-9	1,4,6-Trichloronaphthalene	-	R00594
		2437-55-0	1,4,5-Trichloronaphthalene	-	R00595
		25327-89-3	TBBA-bis-(allyl-ether)	-	R00596
		25357-79-3	Tetrabromophthalic acid Na salt	-	R00597
		25586-43-0	Chloronaphthalene	-	R00598
		25628-08-4	Tetraethylammonium perfluorobutane sulfonate	-	R00599
		25637-99-4	Hexabromocyclododecane	-	R00600

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG058	Halogenated Flame Retardants	26040-51-7	Bis(2-ethylhexyl)tetrabromo-phthalate	-	R00601
		26762-91-4	Tribromo-phenyl-allyl-ether, unspecified	-	R00602
		27753-52-2	Nonabromo-1,1'-biphenyl	-	R00603
		28699-88-9	Dichloronaphthalene	-	R00604
		28906-13-0	TBBA carbonate oligomer	-	R00605
		30496-13-0	TBBA, unspecified	-	R00606
		31454-48-5	Tetrabromo-cyclo-octane	-	R00607
		31604-28-1	1,3,5,8-Tetrachloronaphthalene	-	R00608
		31780-26-4	Poly-dibromo-styrene	-	R00609
		3194-55-6	1,2,5,6,9,10-hexabromocyclododecane	-	R00610
		32241-08-0	Heptachloronaphthalene	-	R00611
		3234-02-4	2,3-Dibromo-2-butene-1,4-diol	-	R00612
		32534-81-9	Pentabromodiphenyl ether C ₁₂ H ₅ Br ₅ O	-	R00613
		32536-52-0	Diphenylether; octabromo derivate	-	R00614
		32588-76-4	N,N'-ethylenebis(3,4,5,6-tetrabromophthalimide)	-	R00615
		3278-89-5	2,4,6-Tribromo-phenyl-allyl-ether	-	R00616
		32844-27-2	TBBA-bisphenol A-phosgene polymer	-	R00617
		3296-90-0	2,2-bis(bromomethyl)propane-1,3-diol	-	R00618
		3322-93-8	1,2-Dibromo-4-(1,2 dibromo-ethyl)-cyclo-hexane	-	R00619
		3432-57-3	1,4,5,8-Tetrachloronaphthalene	-	R00620
		34454-97-2	1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-N-methylbutane-1-sulphonamide	-	R00621
		34588-40-4	2,3,6,7-Tetrachloronaphthalene	-	R00622
		35194-78-6	Heptabromobiphenyl	-	R00623
		36355-01-8	Hexabromobiphenyl	-	R00624
		36483-57-5	Tribromo-neopentyl-alcohol	-	R00625
		36483-60-0	Hexabromodiphenyl ether C ₁₂ H ₄ Br ₆ O	-	R00626
		375-72-4	1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonyl fluoride	-	R00627
		375-73-5	Perfluorobutane sulfonic acid (PFBS)	-	R00628

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG058	Halogenated Flame Retardants	37853-59-1	1,2-Bis(2,4,6-tribromo-phenoxy) ethane	-	R00629
		37853-61-5	TBBA-dimethyl-ether	-	R00630
		38051-10-4	Tetrakis(2-chloroethyl)dichloroisopentyldiphosphate	-	R00631
		38521-51-6	Pentabromo-benzyl bromide	-	R00632
		39635-79-5	4,4'-sulphonylbis[2,6-dibromophenol],Tetrabromobisphenol S, (TBBPS)	-	R00633
		40039-93-8	TBBA-epichlorhydrin oligomer	-	R00634
		40088-45-7	1,1'-Biphenyl, 2,3,3',4'-tetrabromo-	-	R00635
		40088-47-9	Tetrabromodiphenyl ether C ₁₂ H ₆ Br ₄ O	-	R00636
		4162-45-2	TBBA bis-(2-hydroxy-ethyl-ether)	-	R00637
		42757-55-1	TBBS-bis-(2,3-dibromo-propyl-ether)	-	R00638
		49690-63-3	Tris(2,4-Dibromo-phenyl) phosphate	-	R00639
		49690-94-0	Tribromodiphenyl ether	-	R00640
		50402-51-2	1,2,4-Trichloronaphthalene	-	R00641
		50402-52-3	1,2,3-Trichloronaphthalene	-	R00642
		51570-43-5	1,3,5-Trichloronaphthalene	-	R00643
		51570-44-6	1,2,6-Trichloronaphthalene	-	R00644
		51570-45-7	1,2,4,6-Tetrachloronaphthalene	-	R00645
		52434-90-9	Tris-(2,3-dibromo-propyl)-isocyanurate	-	R00646
		52907-07-0	Ethylene-bis(5,6-dibromo-norbornane-2,3-dicarboximide)	-	R00647
		53555-63-8	1,2,3,5-Tetrachloronaphthalene	-	R00648
		53555-64-9	1,3,5,7-Tetrachloronaphthalene	-	R00649
		53555-65-0	1,2,3,5,7-Pentachloronaphthalene	-	R00650
		55481-60-2	Bis(methyl)tetrabromo-phthalate	-	R00651
		55720-33-7	1,2,5-Trichloronaphthalene	-	R00652
		55720-34-8	1,2,7-Trichloronaphthalene	-	R00653
		55720-35-9	1,2,8-Trichloronaphthalene	-	R00654
		55720-36-0	1,3,6-Trichloronaphthalene	-	R00655
		55720-37-1	1,3,7-Trichloronaphthalene	-	R00656
		55720-38-2	1,3,8-Trichloronaphthalene	-	R00657

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG058	Halogenated Flame Retardants	55720-39-3	1,6,7-Trichloronaphthalene	-	R00658
		55720-40-6	2,3,6-Trichloronaphthalene	-	R00659
		55720-41-7	1,2,3,7-Tetrachloronaphthalene	-	R00660
		55720-42-8	1,3,6,7-Tetrachloronaphthalene	-	R00661
		55720-43-9	1,4,6,7-Tetrachloronaphthalene	-	R00662
		56307-79-0	Pentabromobiphenyl	-	R00663
		57137-10-7	Poly tribromo-styrene	-	R00664
		58863-14-2	1,2,3,4,5,6,7-Heptachloronaphthalene	-	R00665
		58863-15-3	1,2,3,4,5,6,8-Heptachloronaphthalene	-	R00666
		58877-88-6	1,2,3,4,5,6-Hexachloronaphthalene	-	R00667
		58965-66-5	Tetra-decabromo-diphenoxy-benzene	-	R00668
		59080-34-1	1,1'-Biphenyl, 2,2',5-tribromo-	-	R00669
		59080-40-9	1,1'-Biphenyl, 2,2',4,4',5,5'-hexabromo-	-	R00670
		593-60-2	Bromoethylene	-	R00671
		59447-55-1	Pentabromo-benzyl-acrylate, monomer	-	R00672
		59447-57-3	Pentabromo-benzyl-acrylate, polymer	-	R00673
		59536-65-1	Polybromobiphenyls; Polybrominatedbiphenyls (PBB)	-	R00674
		59789-51-4	Tribromo-bisphenyl-maleinimide	-	R00675
		608-71-9	Pentabromo-phenol	-	R00676
		61288-13-9	Bromkal 80	-	R00677
		61368-34-1	Tribromo-styrene	-	R00678
		615-58-7	2,4-Dibromo-phenol	-	R00679
		61788-76-9	Alkanes, chloro; chloroparaffins	-	R00680
		632-79-1	Tetrabromo phthalic anhydride	-	R00681
		63936-56-1	Nonabromodiphenyl ether	-	R00682
		6529-87-9	1,2,4,8-Tetrachloronaphthalene	-	R00683
		66108-37-0	Tris(2,3-dichloro-1-propyl)phosphate	-	R00684
		6733-54-6	1,2,4,5-Tetrachloronaphthalene	-	R00685
		67774-32-7	Firemaster FF-1	-	R00686

Substance group ID	Substance group	CAS No Note 1	Substance	Subject element's Conversion factor	IEC62474 RSL ID Note 2
SG058	Halogenated Flame Retardants	67922-21-8	1,2,4,7-Tetrachloronaphthalene	-	R00687
		67922-22-9	1,2,5,6-Tetrachloronaphthalene	-	R00688
		67922-23-0	1,2,5,7-Tetrachloronaphthalene	-	R00689
		67922-24-1	1,2,6,8-Tetrachloronaphthalene	-	R00690
		67922-25-2	1,2,3,4,5-Pentachloronaphthalene	-	R00691
		67922-26-3	1,2,3,4,6-Pentachloronaphthalene	-	R00692
		67922-27-4	1,2,3,4,5,7-Hexachloronaphthalene	-	R00693
		68441-46-3	1,3-Butadiene homopolymer, brominated	-	R00694
		68928-80-3	Heptabromodiphenyl ether C ₁₂ H ₃ Br ₇ O	-	R00695
		68955-41-9	Bromo-/Chloro-paraffins	-	R00696
		69882-11-7	Poly(2,6-dibromo-phenylene oxide)	-	R00697
		70682-74-5	TBBA-TBBA-diglycidyl-ether oligomer	-	R00698
		70776-03-3	Polychlorinated naphthalenes	-	R00699
		71011-12-6	Alkanes, C ₁₂ -13, chloro	-	R00700
		71342-77-3	TBBA carbonate oligomer, 2,4,6-tribromo-phenol terminated	-	R00701
		75790-69-1	TBPA, glycol-and propylene-oxide esters	-	R00702
		79-94-7	Tetrabromobisphenol A (TBBPA)	-	R00703
		82600-56-4	Bromo-/Chloro-alpha-olefin	-	R00704
		84852-53-9	1,1'-(ethane-1,2-diyl)bis[pentabromobenzene]	-	R00705
		85535-84-8	Alkanes, C ₁₀ -13, chloro (Short Chain Chlorinated Paraffins)	-	R00706
		87-83-2	Pentabromo-toluene	-	R00707
		90-13-1	1-Chloronaphthalene	-	R00708
		90948-28-0	1,2,4,5,6,8-Hexachloronaphthalene	-	R00709
		91-58-7	2-Chloronaphthalene	-	R00710
		92-66-0	4-Bromobiphenyl	-	R00711
		92-86-4	1,1'-Biphenyl, 4,4'-dibromo-	-	R00712
		94334-64-2	TBBA carbonate oligomer, phenoxy end capped	-	R00713
		96-13-9	2,3-dibromopropan-1-ol; 2,3-dibromo-1-propanol	-	R00714
		-	Others	-	-