

Olympus Group
Control Rules for Chemical Substances Used
in Product Annex B:
List of Exclusions from the RoHS Directive
Prohibited Substances

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OLYMPUS®

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1. Objective

This Annex lists exclusions regarding the RoHS Directive prohibited substances, as part of “the Control Rules for Environment-related Substances Used in Product” that are applicable to the Olympus Group.

2. Exclusions

This Annex presents the exclusions from RoHS Directive (2002/95/EC) and RoHS2 Directive (2011/65/EU) in Table 1, and their details in Tables 2 and 3.

2.1 Table 1: Exclusions from RoHS Directive and RoHS2 Directive

	2011/65/EU (RoHS2)	2002/95/EC (RoHS)
Table 2	Applications excluded from the limitations in Article 4-(1) of Annex III	Applications of lead, mercury, cadmium and hexavalent chromium excluded from the requirements in Article 4-(1) of Annex (Commission Decision 2010/571/EU)
Table 3	Applications excluded from the limitations particular to medical, monitoring and control instruments in Article 4-(1) of Annex IV	(No regulation)

2.2 Table 2: Exclusions from Annex to RoHS Directive and Annex III to RoHS2 Directive

Note: In the “Dates of ban on delivery” column of the tables below, “Immediately banned (*1)” is only applicable to Categories 1 through 7, 10 and 11 (electric and electronic equipment) of Annex I to RoHS2 Directive. This is because the corresponding exemptions are expected to expire on July 21, 2016 because no extension application was presented or the application was withdrawn.

No.	Exemption	Remarks (Legal dates of expiration/Dates of applicability, etc)	Dates of ban on delivery
1	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):		
1(a)	For general lighting purposes < 30 W: 5 mg	2.5mg mg shall be used per burner after 31 December, 2012	
1(b)	For general lighting purposes \geq 30 W and < 50 W: 5 mg	3.5mg may be used per burner after 31 December, 2011	
1(c)	For general lighting purposes \geq 50 W and < 150 W: 5 mg		
1(d)	For general lighting purposes \geq 150 W: 15 mg		
1(e)	For general lighting purposes with circular or square structural shape and tube diameter \leq 17 mm	7 mg may be used per burner after 31 December, 2011	
1(f)	For special purposes: 5 mg		
1(g)	For general lighting purposes < 30 W with a lifetime equal or above 20,000 h: 3.5 mg	Expires on 31 December, 2017	Immediately banned
2(a)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp):		
2(a)(1)	Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g., T2): 5 mg	4 mg may be used per lamp after 31 December, 2011	
2(a)(2)	Tri-band phosphor with normal	3 mg may be used per lamp after	

	lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g., T5): 5 mg	31 December, 2011	
2(a)(3)	Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g., T8): 5 mg	3.5 mg may be used per lamp after 31 December, 2011	
2(a)(4)	Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g., T12): 5 mg	3.5 mg may be used per lamp after 31 December, 2012	
2(a)(5)	Tri-band phosphor with long lifetime ($\geq 25,000$ h): 8 mg	5 mg may be used per lamp after 31 December, 2011	
2(b)	Mercury in other fluorescent lamps not exceeding (per lamp):		
2(b)(1)	Linear halophosphate lamps with tube > 28 mm (e.g., T10 and T12): 10 mg	Expires on 13 April, 2012	Immediately banned
2(b)(2)	Non-linear halophosphate lamps (all diameters): 15 mg	Expires on 13 April, 2016	Immediately banned
2(b)(3)	Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g., T9)	15 mg may be used per lamp after 31 December, 2011	
2(b)(4)	Lamps for other general lighting and special purposes (e.g., induction lamps)	15 mg may be used per lamp after 31 December, 2011	
3	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp):		
3(a)	Short length (≤ 500 mm)	3.5 mg may be used per lamp after 31 December, 2011	
3(b)	Medium length (> 500 mm and ≤ 1500 mm)	5 mg may be used per lamp after 31 December, 2011	
3(c)	Long length (> 1500 mm)	13 mg may be used per lamp after 31 December, 2011	
4(a)	Mercury in other low pressure discharge lamps (per lamp)	15 mg may be used per lamp after 31 December, 2011	
4(b)	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$:		
4(b)-I	$P \leq 155$ W	30 mg may be used per burner after 31 December, 2011	
4(b)-II	$155\text{W} < P \leq 405$ W	40 mg may be used per burner after 31 December, 2011	
4(b)-III	$P > 405$ W	40 mg may be used per burner after 31 December, 2011	
4(c)	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner):		
4(c)-I	$P \leq 155$ W	25 mg may be used per burner after 31 December, 2011	
4(c)-II	$155\text{W} < P \leq 405\text{W}$	30 mg may be used per burner after 31 December, 2011	

4(c)-III	P > 405 W	40 mg may be used per burner after 31 December, 2011	
4(d)	Mercury in High Pressure Mercury (vapour) lamps (HPMV)	Expires on 13 April, 2015	Immediately banned
4(e)	Mercury in metal halide lamps(MH)		
4(f)	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex		
4(g)	Mercury in hand crafted luminous discharge tubes used for signs, decorative or architectural and specialist lighting and light-artwork, where the mercury content shall be limited as follows: (a) 20 mg per electrode pair + 0,3 mg per tube length in cm, but not more than 80 mg, for outdoor applications and indoor applications exposed to temperatures below 20 °C; (b) 15 mg per electrode pair + 0,24 mg per tube length in cm, but not more than 80 mg, for all other indoor applications.	Expires on 31 December, 2018	30 June, 2018
5(a)	Lead in glass of cathode ray tubes		Immediately banned (*1)
5(b)	Lead in the glass of fluorescent tubes not exceeding 0.2% by weight		
6(a)	Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight		
6(b)	Lead as an alloying element in aluminium containing up to 0.4% lead by weight		
6(c)	Copper alloy containing up to 4% lead by weight		
7(a)	Lead in high melting temperature type solders (i.e., lead-based alloys containing 85% by weight or more lead)		
7(b)	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications		Immediately banned (*1)
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		
7(c)-II	Lead in dielectric ceramic in		

	capacitors for a rated voltage of 125 V AC or 250 V DC or higher		
7(c)-III	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	Expires on 1 January, 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January, 2013	Immediately banned excluding spare parts
7(c)-IV	Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors		
8(a)	Cadmium and its compounds in one shot pellet type thermal cut-offs	Expires on 1 January, 2012 and after that date may be used in spare parts for EEE placed on the market before 1 January, 2012	Immediately banned excluding spare parts
8(b)	Cadmium and its compounds in electrical contacts		
9	Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0.75 % by weight in the cooling solution		
9(b)	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	(a) Category 8 (in vitro diagnostic medical devices): 21 July, 2023 (b) Category 9 (industrial monitoring and control instruments) and Category 11: 21 July, 2024 (c) All other categories and sub-categories: 21 July, 2021	(a) 21 January, 2023 (b) 21 January, 2024 (c) 21 January, 2021
11(a)	Lead used in C-press compliant pin connector systems	May be used in spare parts for EEE placed on the market before 24 September 2010	Immediately banned excluding spare parts
11(b)	Lead used in other than C-press compliant pin connector systems	Expires on 1 January, 2013 and after that date may be used in spare parts for EEE placed on the market before 1 January, 2013	Immediately banned excluding spare parts
12	Lead as a coating material for the thermal conduction module C-ring	May be used in spare parts for EEE placed on the market before 24 September, 2010	Immediately banned excluding spare parts
13(a)	Lead in white glasses used for optical applications	(a) Category 8 (in vitro diagnostic medical devices): 21 July, 2023 (b) Category 9 (industrial monitoring and control instruments) and Category 11: 21 July, 2024 (c) All other categories and sub-categories: 21 July, 2021	(a) 21 January, 2023 (b) 21 January, 2024 (c) 21 January, 2021
13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards	(a) Category 8 (in vitro diagnostic medical devices): 21 July, 2023 (b) Category 9 (industrial monitoring and control	(a) 21 January, 2023 (b) 21 January, 2024

		instruments) and Category 11: 21 July, 2024 (c) All other categories and sub-categories: 21 July, 2021	(c) 21 January, 2021
13(b) - (I)	Lead in ion-colored optical filter glass types	· Categories 1 through 7 and 10: 21 July, 2021	21 January, 2021
13(b) - (II)	Cadmium in striking (secondary heat treatment) optical filter glass types; excluding applications falling under point 39 of this Annex	· Categories 1 through 7 and 10: 21 July, 2021	21 January, 2021
13(b) - (II)	Cadmium and lead in glazes used for reflectance standards	· Categories 1 through 7 and 10: 21 July, 2021	21 January, 2021
14	Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80% and less than 85% by weight	Expires on 1 January, 2011 and after that date may be used in spare parts for EEE placed on the market before 1 January, 2011	Immediately banned excluding spare parts
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages		
16	Lead in linear incandescent lamps with silicate coated tubes	Expires on 1 September, 2013	Immediately banned
17	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications		Immediately banned (*1)
18(a)	Lead as activator in the fluorescent powder (1% lead by weight or less) of discharge lamps when used as speciality lamps for diazoprinting reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba) ₂ MgSi ₂ O ₇ :Pb)	Expires on 1 January, 2011	Immediately banned
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)		
19	Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact energy saving lamps(ESL)	Expires on 1 June, 2011	Immediately banned
20	Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs)	Expires on 1 June, 2011	Immediately banned
21	Lead and cadmium in printing inks for the application of enamels on		

	glasses, such as borosilicate and soda lime glasses		
23	Lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm and less	May be used in spare parts for EEE placed on the market before 24 September, 2010	Immediately banned excluding spare parts
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors		
25	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring		Immediately banned (*1)
26	Lead oxide in the glass envelope of black light blue lamps	Expires on 1 June, 2011	Immediately banned
27	Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers	Expired on 24 September, 2010	Immediately banned
29	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC		
30	Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more		Immediately banned (*1)
31	Lead in soldering materials in mercury free flat fluorescent lamps (which e.g., are used for liquid crystal displays, design or industrial lighting)		Immediately banned (*1)
32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes		
33	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers		Immediately banned (*1)
34	Lead in cermet-based trimmer potentiometer elements		
36	Mercury used as a cathode sputtering inhibitor in DC plasma displays with a content up to 30 mg per display	Expires on 1 July, 2010	Immediately banned
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body		
38	Cadmium and cadmium oxide in thick film pastes used on aluminium		Immediately banned (*1)

	bonded beryllium oxide		
39 (a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0.2 µg Cd per mm ² of display screen area)	Expires on 31 October, 2019	
40	Cadmium in photoresistors for analogue optocouplers applied in professional audio equipment	Expires on 31 December, 2013	Immediately banned
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	Expires on 31 December, 2018	30 June, 2018

2.3 Table 3-1: Equipment utilising or detecting ionising radiation specified by Annex IV to RoHS2 Directive

No.	Excluded Applications	Remarks (Legal dates of expiration/Dates of applicability, etc.)	Dates of ban on delivery
1	Lead, cadmium and mercury in detectors for ionising radiation.		
2	Lead bearings in X-ray tubes.		
3	Lead in electromagnetic radiation amplification devices: micro-channel plate and capillary plate.		
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.		
5	Lead in shielding for ionising radiation.		
6	Lead in X-ray test objects.		
7	Lead stearate X-ray diffraction crystals.		
8	Radioactive cadmium isotope source for portable X-ray fluorescence spectrometers.		

2.4 Table 3-2: Sensors, detectors and electrodes specified by Annex IV to RoHS2 Directive

No.	Exclusions	Remarks (Legal dates of expiration/Dates of applicability, etc)	Dates of ban on delivery
1a	Lead and cadmium in ion selective electrodes including glass of pH electrodes.		

1b	Lead anodes in electrochemical oxygen sensors.		
1c	Lead, cadmium and mercury in infra-red light detectors.		
1d	Mercury in reference electrodes: low chloride mercury chloride, mercury sulphate and mercury oxide.		

2.5 Table 3-3: Others specified by Annex IV to RoHS2 Directive

No.	Exclusions	Remarks (Legal dates of expiration/Dates of applicability,etc)	Dates of ban on delivery
9	Cadmium in helium-cadmium lasers.		
10	Lead and cadmium in atomic absorption spectroscopy lamps.		
11	Lead in alloys as a superconductor and thermal conductor in MRI.		
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	31 December, 2020
13	Lead in counterweights.		
14	Lead in single crystal piezoelectric materials for ultrasonic transducers.		
15	Lead in solders for bonding to ultrasonic transducers.		
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.		
17	Lead in solders in portable emergency defibrillators.		
18	Lead in solders of high performance infrared imaging modules to detect in the range 8-14 μm .		
19	Lead in Liquid crystal on silicon (LCoS) displays.		
20	Cadmium in X-ray measurement filters. EN L 174/106 Official Journal of the European Union 1 .7.2011		
21	(1) Cadmium in phosphor coatings in image intensifiers for X-ray images.	(1) Expires on 31 December, 2019 (2) Cadmium in spare parts for X-ray systems placed on the EU market before 1 January, 2020.	30 June, 2019
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	31 December, 2020
23	Lead as an alloying element for bearings and wear surfaces in medical	Expires on 30 June, 2021	31 December, 2020

	equipment exposed to ionising radiation.		
24	Lead enabling vacuum tight connections between aluminium and steel in X-ray image intensifiers.	Expires on 31 December, 2019	30 June, 2019
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	31 December, 2020
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.	Expires on 30 June, 2021	31 December, 2020
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	31 December, 2019
28	Lead in solders for mounting cadmium telluride and cadmium zinc telluride digital array detectors to printed circuit boards.	Expires on 31 December, 2017	Immediately banned
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	Expires on 30 June, 2021	31 December, 2020

	medical devices (category 8) and/or in industrial monitoring and control instruments.		
30	Hexavalent chromium in alkali dispensers used to create photocathodes in X-ray image intensifiers, and	(1) Expires on 31 December, 2019 (2) Hexavalent chromium in spare parts for X-ray systems placed on the EU market before 1 January, 2020.	30 June, 2019
31(a)	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.	(a) 21 January, 2021 (b) 21 January, 2023 (c) 21 January, 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 31 December, 2019	30 June 2019
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.	Class IIa: Expires on 30 June, 2016 Class IIb: Expires on 31 December, 2020	Class IIa: Immediately banned Class IIb: 30 June, 2020
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	22 January, 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	21 January, 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.	30 June, 2020
37	Lead in platinized 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	Expires on 31 December, 2018	30 June, 2018

	<p>laboratory applications for unknown concentrations;</p> <p>(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:</p> <p>(i) solutions with an acidity < pH 1;</p> <p>(ii) solutions with an alkalinity > pH 13;</p> <p>(iii) corrosive solutions containing halogen gas;</p> <p>(c) measurements of conductivities above 100 mS/m that must be performed with portable instruments.</p>		
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.	30 June, 2019
39	<p>Lead in micro-channel plates (MCPs) used in equipment where at least one of the following properties is present:</p> <p>(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;</p> <p>(b) a two-dimensional spatial resolution for detecting electrons or ions, where at least one of the following applies:</p> <p>(i) a response time shorter than 25 ns;</p> <p>(ii) a sample detection area larger than 149 mm²;</p> <p>(iii) a multiplication factor larger than $1,3 \times 10^3$.</p> <p>(c) a response time shorter than 5 ns for detecting electrons or ions;</p> <p>(d) a sample detection area larger than 314 mm² for detecting electrons or ions;</p> <p>(e) a multiplication factor larger than $4,0 \times 10^7$.</p>	<p>The exemption expires on the following dates:</p> <p>(a) 21 July, 2021 for medical devices and monitoring and control instruments;</p> <p>(b) 21 July, 2023 for in-vitro diagnostic medical devices;</p> <p>(c) 21 July, 2024 for industrial monitoring and control instruments.</p>	<p>(a) 21 January, 2021</p> <p>(b) 21 January, 2023</p> <p>(c) 21 January, 2024</p>
40	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC for industrial	Expires on 31 December, 2020. May be used after that date in spare parts for industrial	30 June, 2020

	monitoring and control instruments.	monitoring and control instruments placed on the market before 1 January, 2021.	
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 December, 2018	30 June, 2018
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	31 December, 2018
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.	15 January, 2023

3. Major revisions to Annex B

Ver.	Date	Article of Annex B	Contents and reason for revisions
12	2018.06.01	2	Table B.2 1(g): The date of ban on delivery was changed to “Immediately banned”. Table B.2 9(b), 13(a) and 13(b): These were revised according to the Official Journals of the European Union. (EU)2017/1010, (EU)2017/1011, (EU)2017/1009 Table B.3-3 28: The date of ban on delivery was changed to “Immediately banned”.
11	2017.04.01	2	Table 3-3: 26 was revised, 31 was deleted and 31 (a) was added, and 43 was added, according to EU Directives (EU)2016/1028, (EU)2016/585 and (EU)2016/1029. Table 3-3 33IIa: The date of ban on delivery was changed to “Immediately banned”.
10	2016.04.04	2.2	The date of ban on delivery for 2(b)(2) was changed to “Immediately banned”.
		2.2	Exclusions 5(a),7(b),17,25,30,31,33,38, for which no renewal application was presented or the application was withdrawn before the renewal application was reviewed, were changed to “Immediately banned”, and a note on this was added under the table title.
		2.2	For 7(c)-III,8(a),11(a),11(b),12,14,23, “Immediately banned excluding spare parts” was added to the “Dates of ban on delivery” column.
		2.2	The legal date of expiration and the date of ban on delivery for 7(c)-IV,39 were deleted.
9	2015.06.05	2.2	Table 2: Expired exclusions were removed, and descriptions were revised. Table 2: Item 4 (g) (Directive 2014/76/EU) and 41 (Directive 2014/72/EU) were added.
		2.3	Table 3.1: Descriptions were revised.
		2.4	Table 3.2: Descriptions were revised.
		2.5	Table 3.3: Items 35 through 42 (Directives 2014/69/EU through 2014/75/EU), 2015/573/EU, and 2015/574/EU were added, and descriptions were revised.
8	2014.02.20	2.2	Table 2: Item 1(g) was added.: Directive 2014/14/EU
		2.5	Table 3-3: Item 12 was revised.: According to Directive 2014/9/EU Table 3-3: Items 21 through 34 were added: Directives 2014/1/EU through 2014/8/EU, 2014/10/EU through 2014/13/EU, and 2014/15/EU through 2014/16/EU
7	2013.09.05	-	No change. (Version-up due to change of Annex A)
6	2013.05.17	2.1	The columns of Table 2 were rearranged to show “RoHS2” in the second column and “RoHS” in the third according to the order of priority.
		2.2	1) Table 2: Dates of expirations for Nos. 7c-IV and 40 were added. 2) Table 2: A column for “Dates of ban on delivery” was

			<p>added. The dates six months before the date of expiration of the exemption periods, were designated as the dates of ban on delivery.</p> <p>3) Regarding items that passed their dates of expiration of the exemption periods, “Immediately banned” was added to clearly state that the exemption period expired.</p>
		2.3 2.4	A column for “Dates of ban on deliver” was added to Tables B. 3-1 and B. 3-2.
5	2012.06.12	All	The exclusions from the RoHS Directive were extracted from the Control Rules for Environment-related Substances Used in Product, and presented as “Annex B: List of Exclusions from the RoHS Directive prohibited substances”.