

# EU RoHS Directive Exemption List-1 (Annex III) Ver.6r21

(Refer to the original EU RoHS Directive 2011/65/EU and relative official journal for more details.)

RoHS Exemption number	Substance name	Exemption usage	Validity status (End date)			Note
			Categories 1~7, 10	Categories 8, 9	Category 11	
1	Mercury	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):	---			
1(a)	Mercury	For general lighting purposes < 30W : 5mg Expires on 31 December 2011; 3,5mg may be used per burner after 31 December 2011 until 31 December 2012; 2,5mg shall be used per burner after 31 December 2012 Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
1(b)	Mercury	For general lighting purposes ≥ 30W and < 50W : 5mg Expires on 31 December 2011; 3,5mg may be used per burner after 31 December 2011 Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
1(c)	Mercury	For general lighting purposes ≥ 50W and < 150W : 5mg Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
1(d)	Mercury	For general lighting purposes ≥ 150W : 15mg Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
1(e)	Mercury	For general lighting purposes with circular or square structural shape and tube diameter ≤ 17mm No limitation of use until 31 December 2011; 7mg may be used per burner after 31 December 2011 5 mg may be used per burner Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
1(f)	Mercury	For special purposes : 5mg 1(f) is replaced by the following				1(f) is replaced by 1(f) - I, 1(f) - II
1(f) - I	Mercury	For lamps designed to emit mainly light in the ultraviolet spectrum: 5 mg Expires on 24 February 2027	Expires on 24 February 2027			
1(f) - II	Mercury	For special purposes: 5 mg Expires on 24 February 2025	Expires on 24 February 2025			FUNAI bans delivery of parts/materials using the exemption.
1(g)	Mercury	For general lighting purposes < 30 W with a lifetime equal or above 20000 h : 3,5mg Expires on 24 August 2023	No longer valid			FUNAI bans new procurement of parts/materials using the exemption.
2(a)	Mercury	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp):	---			
2(a)(1)	Mercury	Tri-band phosphor with normal lifetime and a tube diameter < 9mm (e.g. T2): 5mg Expires on 31 December 2011; 4mg may be used per lamp after 31 December 2011 Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
2(a)(2)	Mercury	Tri-band phosphor with normal lifetime and a tube diameter ≥ 9mm and ≤ 17mm (e.g. T5): 5mg Expires on 31 December 2011; 3mg may be used per lamp after 31 December 2011 Expires on 24 August 2023	No longer valid			FUNAI bans new procurement of parts/materials using the exemption.
2(a)(3)	Mercury	Tri-band phosphor with normal lifetime and a tube diameter > 17mm and < 28mm (e.g. T8): 5mg Expires on 31 December 2011; 3,5mg may be used per lamp after 31 December 2011 Expires on 24 August 2023	No longer valid			FUNAI bans new procurement of parts/materials using the exemption.
2(a)(4)	Mercury	Tri-band phosphor with normal lifetime and a tube diameter > 28mm (e.g. T12): 5mg Expires on 31 December 2012; 3,5mg may be used per lamp after 31 December 2012 Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
2(a)(5)	Mercury	Tri-band phosphor with long lifetime (≥ 25000h): 8mg Expires on 31 December 2011; 5mg may be used per lamp after 31 December 2011 Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
2(b)	Mercury	Mercury in other fluorescent lamps not exceeding (per lamp):	---			
2(b)(1)	Mercury	Linear halophosphate lamps with tube > 28mm (e.g. T10 and T12) : 10mg Expires on 13 April 2012	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
2(b)(2)	Mercury	Non-linear halophosphate lamps (all diameters) : 15mg Expires on 13 April 2016	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
2(b)(3)	Mercury	Non-linear tri-band phosphor lamps with tube diameter > 17mm (e.g. T9) No limitation of use until 31 December 2011; 15mg may be used per lamp after 31 December 2011 Expires on 24 February 2023 10 mg may be used per lamp from 25 February 2023 until 24 February 2025	Expires on 24 February 2025			FUNAI bans delivery of parts/materials using the exemption.
2(b)(4)	Mercury	Lamps for other general lighting and special purposes (e.g. induction lamps) No limitation of use until 31 December 2011; 15mg may be used per lamp after 31 December 2011 2(b)(4) is replaced by the following:				2(b)(4) is replaced by 2(b)(4)- I, 2(b)(4)- II, 2(b)(4)- III
2(b)(4)- I	Mercury	Lamps for other general lighting and special purposes (e.g. induction lamps): 15 mg Expires on 24 February 2025	Renewal requested and effective until the expiration date after promulgation of the Official Journal.			
2(b)(4)- II	Mercury	Lamps emitting mainly light in the ultraviolet spectrum: 15 mg Expires on 24 February 2027	Expires on 24 February 2027			
2(b)(4)- III	Mercury	Emergency lamps: 15 mg Expires on 24 February 2027	Expires on 24 February 2027			
3	Mercury	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes used in EEE placed on the market before 24 February 2022 not exceeding (per lamp)	---	---	---	FUNAI bans new procurement of parts/materials using the exemption.
3(a)	Mercury	Short length (≤ 500mm) No limitation of use until 31 December 2011; 3,5mg may be used per lamp after 31 December 2011 Expires on 24 February 2025	Expires on 24 February 2025			FUNAI bans delivery of parts/materials using the exemption.
3(b)	Mercury	Medium length (> 500mm and ≤ 1500mm) No limitation of use until 31 December 2011; 5mg may be used per lamp after 31 December 2011 Expires on 24 February 2025	Expires on 24 February 2025			FUNAI bans delivery of parts/materials using the exemption.
3(c)	Mercury	Long length (> 1500mm) No limitation of use until 31 December 2011; 13mg may be used per lamp after 31 December 2011 Expires on 24 February 2025	Expires on 24 February 2025			FUNAI bans delivery of parts/materials using the exemption.
4(a)	Mercury	Mercury in other low pressure discharge lamps (per lamp) No limitation of use until 31 December 2011; 15mg may be used per lamp after 31 December 2011 Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
4(a)-I	Mercury	Mercury in low pressure non-phosphor coated discharge lamps, where the application requires the main range of the lamp spectral output to be in the ultraviolet spectrum: up to 15 mg mercury may be used per lamp Expires on 24 February 2027	Expires on 24 February 2027			They shall apply those provisions from 1 October 2022 4(a) is replaced by 4(a)-I
4(b)	Mercury	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 80: P ≤ 105 W: 16 mg may be used per burner Expires on 24 February 2027	Expires on 24 February 2027			
4(b)-I	Mercury	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60: P ≤ 155 W: 30 mg may be used per burner Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
4(b)-II	Mercury	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60: 155 W < P ≤ 405 W: 40 mg may be used per burner Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
4(b)-III	Mercury	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60: P > 405 W: 40 mg may be used per burner Expires on 24 February 2023	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
4(c)	Mercury	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner):	---			
4(c)-I	Mercury	P ≤ 155W No limitation of use until 31 December 2011; 25mg may be used per burner after 31 December 2011 20 mg Expires on 24 February 2027	Expires on 24 February 2027			

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			Categories 1~7, 10	Categories 8, 9	Category 11	
4(c)-II	Mercury	155W ≤ P < 405W No limitation of use until 31 December 2011; 30mg may be used per burner after 31 December 2011 25 mg Expires on 24 February 2027	Expires on 24 February 2027			
4(c)-III	Mercury	P > 405W No limitation of use until 31 December 2011; 40mg may be used per burner after 31 December 2011 25 mg Expires on 24 February 2027	Expires on 24 February 2027			
4(d)	Mercury	Mercury in High Pressure Mercury (vapour) lamps (HPMV) Expires on 13 April 2015	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
4(e)	Mercury	Mercury in metal halide lamps (MH) Expires on 24 February 2027	Expires on 24 February 2027			
4(f)	Mercury	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex 4(f) is replaced by the following:				4(f) is replaced by 4(f)- I, 4(f)- II, 4(f)- III , 4(f)- IV
4(f)-I	Mercury	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex Expires on 24 February 2025	Renewal requested and effective until the expiration date after promulgation of the Official Journal.			
4(f)-II	Mercury	Mercury in high pressure mercury vapour lamps used in projectors where an output ≥ 2000 lumen ANSI is required Expires on 24 February 2027	Expires on 24 February 2027			
4(f)-III	Mercury	Mercury in high pressure sodium vapour lamps used for horticulture lighting Expires on 24 February 2027	Expires on 24 February 2027			
4(f)-IV	Mercury	Mercury in lamps emitting light in the ultraviolet spectrum Expires on 24 February 2027	Expires on 24 February 2027			
4(g)	Mercury	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) 20mg per electrode pair +0,3mg per tube length in cm, but not more than 80mg, for outdoor applications and indoor applications exposed to temperatures below 20°C;b) 15mg per electrode pair +0,24mg per tube length in cm, but not more than 80mg, for all other indoor applications. Expires on 31 December 2018	No longer valid			FUNAI bans delivery of parts/materials using the exemption.
5(a)	Lead	Lead in glass of cathode ray tubes	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
5(b)	Lead	Lead in glass of fluorescent tubes not exceeding 0,2 % by weight	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	No longer valid	No longer valid	Category 8 and Category 9: FUNAI bans new procurement of parts/materials using the exemption.
6(a)	Lead	Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0,35 % lead by weight Expires on:21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; 21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	No longer valid	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Categories 1~7, 10: FUNAI bans delivery of parts/materials using the exemption.
6(a)-I	Lead	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 Expires on 21 July 2021 for categories 1-7 and 10.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	---	
6(b)	Lead	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight Expires on:21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, 21 July 2023 for category 8 in vitro diagnostic medical devices, 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	No longer valid	Renewal requested as 6(b)- I , II and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Categories 1~7, 10: FUNAI bans delivery of parts/materials using the exemption.
6(b)-I	Lead	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling Expires on 21 July 2021 for categories 1-7 and 10.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	---	
6(b)-II	Lead	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight Expires on 18 May 2021 for categories 1-7 and 10.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	---	
6(c)	Lead	Copper alloy containing up to 4 % lead by weight Expires on:21 July 2021 for categories 1-7 and 10, 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, 21 July 2023 for category 8 in vitro diagnostic medical devices, 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
7(a)	Lead	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead) (except applications covered by point 24 of this Annex) Applies to categories 1-7 and 10 (except applications covered by point 24 of this Annex) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments expires on 21 July 2021. For category 8 in vitro diagnostic medical devices expires on 21 July 2023. For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
7(b)	Lead	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
7(c)-I	Lead	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 Applies to categories 1-7 and 10 (except applications covered under point 34) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments expires on 21 July 2021. For category 8 in vitro diagnostic medical devices expires on 21 July 2023. For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
7(c)-II	Lead	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher Does not apply to applications covered by point 7(c)-I and 7(c)-IV of this Annex. Expires on: - 21 July 2021 for categories 1-7 and 10; - 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; - 21 July 2023 for category 8 in vitro diagnostic medical devices; - 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.'	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
7(c)-III	Lead	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125V AC or 250V 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	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
7(c)-IV	Lead	Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors Expires on 21 July 2016	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
8(a)	Cadmium	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	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.

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			Categories 1~7, 10	Categories 8, 9	Category 11	
8(b)	Cadmium	Cadmium and its compounds in electrical contacts Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	No longer valid	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Categories 1~7, 10: FUNAI bans delivery of parts/materials using the exemption.
8(b)-I	Cadmium	Cadmium and its compounds in electrical contacts used in: —circuit breakers —thermal sensing controls, —thermal motor protectors (excluding hermetic thermal motor protectors), —AC switches rated at: —6 A and more at 250 V AC and more, or —12 A and more at 125 V AC and more, —DC switches rated at 20 A and more at 18 V DC and more, and —switches for use at voltage supply frequency $\geq$ 200 Hz. Applies to categories 1 to 7 and 10 and expires on 21 July 2021.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	---	
9	Hexavalent chromium	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 Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, —21 July 2023 for category 8 in vitro diagnostic medical devices, —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
9(a)- I	Hexavalent chromium	Up to 0,75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators (including minibars) designed to operate fully or partly with electrical heater, having an average utilised power input < 75 W at constant running conditions Applies to categories 1-7 and 10 and expires on 5 March 2021.	No longer valid	---	---	FUNAI bans delivery of parts/materials using the exemption.
9(a)-II	Hexavalent chromium	Up to 0,75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators: —designed to operate fully or partly with electrical heater, having an average utilised power input $\geq$ 75 W at constant running conditions, —designed to fully operate with non-electrical heater. Applies to categories 1-7 and 10 and expires on 21 July 2021.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	---	
9(b)	Lead	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications Applies to categories 8, 9 and 11; expires on:21 July 2023 for category 8 in vitro diagnostic medical devices, 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11, 21 July 2021 for other subcategories of categories 8 and 9.	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
9(b)-I	Lead	Lead in bearing shells and bushes for refrigerant-containing hermetic scroll compressors with a stated electrical power input equal or below 9 kW for heating, ventilation, air conditioning and refrigeration (HVACR) applications Applies to category 1; expires on 21 July 2019.	No longer valid	---	---	FUNAI bans delivery of parts/materials using the exemption.
11(a)	Lead	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	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
11(b)	Lead	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	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
12	Lead	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	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
13(a)	Lead	Lead in white glasses used for optical applications Applies to all categories; expires on:21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for all other categories and subcategories	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
13(b)	Lead	Cadmium and lead in filter glasses and glasses used for reflectance standards Applies to categories 8, 9 and 11; expires on:21 July 2023 for category 8 in vitro diagnostic medical devices; 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; 21 July 2021 for other subcategories of categories 8 and 9	No longer valid	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Categories 1~7, 10: FUNAI bans delivery of parts/materials using the exemption.
13(b)-(I)	Lead	Lead in ion coloured optical filter glass types Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	---	
13(b)-(II)	Cadmium	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	---	
13(b)-(III)	Lead, Cadmium	Cadmium and lead in glazes used for reflectance standards Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	---	
14	Lead	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 Expired on 1 January 2011 and after that date may be used in spare parts for EEE placed on the market before 1 January 2011	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
15	Lead	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	No longer valid	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Categories 1~7, 10: FUNAI bans delivery of parts/materials using the exemption.

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			Categories 1~7, 10	Categories 8, 9	Category 11	
15(a)	Lead	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 <sup>2</sup> or larger in any semiconductor technology node; —stacked die packages with die of 300 mm <sup>2</sup> or larger, or silicon interposers of 300 mm <sup>2</sup> or larger.  Applies to categories 1 to 7 and 10 and expires on 21 July 2021	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	---	
16	Lead	Lead in linear incandescent lamps with silicate coated tubes  Expires on 1 September 2013	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
17	Lead	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
18(a)	Lead	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)2MgSi2O7:Pb)  Expired on 1 January 2011	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
18(b)	Lead	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)  Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
18(b)-I	Lead	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb) when used in medical phototherapy equipment  Applies to categories 5 and 8, excluding applications covered by entry 34 of Annex IV, and expires on 21 July 2021.'	Only for Category 5: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Only for Category 8: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	
19	Lead	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	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
20	Lead	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	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
21	Lead, Cadmium	Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses  Applies to categories 8, 9 and 11 and expires on: —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
21(a)	Cadmium	Cadmium when used in colour printed glass to provide filtering functions, used as a component in lighting applications installed in displays and control panels of EEE  Applies to categories 1 to 7 and 10 except applications covered by entry 21(b) or entry 39 and expires on 21 July 2021.	No longer valid	---	---	FUNAI bans delivery of parts/materials using the exemption.
21(b)	Cadmium	Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses  Applies to categories 1 to 7 and 10 except applications covered by entry 21(a) or 39 and expires on 21 July 2021.	No longer valid	---	---	FUNAI bans delivery of parts/materials using the exemption.
21(c)	Lead	Lead in printing inks for the application of enamels on other than borosilicate glasses  Applies to categories 1 to 7 and 10 and expires on 21 July 2021.'	No longer valid	---	---	FUNAI bans delivery of parts/materials using the exemption.
23	Lead	Lead in finishes of fine pitch components other than connectors with a pitch of 0,65mm and less  May be used in spare parts for EEE placed on the market before 24 September 2010	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
24	Lead	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors  Expires on:21 July 2021 for categories 1-7 and 10, 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, 21 July 2023 for category 8 in vitro diagnostic medical devices, 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
25	Lead	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
26	Lead	Lead oxide in the glass envelope of black light blue lamps  Expires on 1 June 2011	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
27	Lead	Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125dB SPL and above) loudspeakers  Expired on 24 September 2010	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
29	Lead	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC ( 1 )  Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	No longer valid	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 and Category 9: FUNAI bans delivery of parts/materials using the exemption.
30	Cadmium	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	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
31	Lead	Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting)	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
32	Lead	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes  Expires on: —21 July 2021 for categories 1-7 and 10, —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, —21 July 2023 for category 8 in vitro diagnostic medical devices, —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.'	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	8(in vitro) other than the above: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	No longer valid	
33	Lead	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
34	Lead	Lead in cermet-based trimmer potentiometer elements  Applies to all categories; expires on:21 July 2021 for categories 1-7 and 10, 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, 21 July 2023 for category 8 in vitro diagnostic medical devices, 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	

# EU RoHS Directive Exemption List-1 (Annex III) Ver.6r21

(Refer to the original EU RoHS Directive 2011/65/EU and relative official journal for more details.)

RoHS Exemption number	Substance name	Exemption usage	Validity status (End date)			Note
			Categories 1~7, 10	Categories 8, 9	Category 11	
36	Mercury	Mercury used as a cathode sputtering inhibitor in DC plasma displays with a content up to 30mg per display Expired on 1 July 2010	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
37	Lead	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body Expires on: —21 July 2021 for categories 1-7 and 10; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.'	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
38	Cadmium	Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
39	Cadmium	Cadmium in colour converting II-VI LEDs (< 10 µg Cd per mm <sup>2</sup> of light-emitting area) for use in solid state illumination or display systems	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
39(a)	Cadmium	39(a) Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0.2 µg Cd per mm <sup>2</sup> of display screen area) Expires for all categories on 31 October 2019	November 21, 2025	November 21, 2025	November 21, 2025	Published in the Official Journal on May 21, 2024 (EU) 2024/1416
40	Cadmium	Cadmium in photoresistors for analogue optocouplers applied in professional audio equipment Expires on 31 December 2013	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
41	Lead	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 Applies to all categories and expires on: —31 March 2022 for categories 1 to 7, 10 and 11; —21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; —21 July 2023 for category 8 in vitro diagnostic medical devices; —21 July 2024 for category 9 industrial monitoring and control instruments.	No longer valid	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
42	Lead	Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in non-road professional use equipment: —with engine total displacement ≥ 15 litres; or —with engine total displacement < 15 litres and the engine is designed to operate in applications where the time between signal to start and full load is required to be less than 10 seconds; or regular maintenance is typically performed in a harsh and dirty outdoor environment, such as mining, construction, and agriculture applications. Applies to category 11, excluding applications covered by entry 6(c) of this Annex. Expires on 21 July 2024.'	---	---	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
43	DEHP	Bis(2-ethylhexyl) phthalate in rubber components in engine systems, designed for use in equipment that is not intended solely for consumer use and provided that no plasticised material comes into contact with human mucous membranes or into prolonged contact with human skin and the concentration value of bis(2-ethylhexyl) phthalate does not exceed: (a)30 % by weight of the rubber for (i)gasket coatings; (ii)solid-rubber gaskets; or (iii)rubber components included in assemblies of at least three components using electrical, mechanical or hydraulic energy to do work, and attached to the engine. (b)10 % by weight of the rubber for rubber-containing components not referred to in point (a). For the purposes of this entry, "prolonged contact with human skin" means continuous contact of more than 10 minutes duration or intermittent contact over a period of 30 minutes, per day. Applies to category 11 and expires on 21 July 2024.	---	---	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
44	Lead	Lead in solder of sensors, actuators, and engine control units of combustion engines within the scope of Regulation (EU) 2016/1628 of the European Parliament and of the Council (*1), installed in equipment used at fixed positions while in operation which is designed for professionals, but also used by non-professional users Applies to category 11 and expires on 21 July 2024.	---	---	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
45	Lead, Hexavalent chromium	Lead diazide, lead styphnate, lead dipicramate, orange lead (lead tetroxide), lead dioxide in electric and electronic initiators of explosives for civil (professional) use and barium chromate in long time pyrotechnic delay charges of electric initiators of explosives for civil (professional) use. Applies to category 11 and expires on 20 April 2026.	---	---	April 20, 2026	

# EU RoHS Directive Exemption List-2 (Annex IV) Ver.6r21

(Refer to the original EU RoHS Directive 2011/65/EU and relative official journal for more details.)

RoHS Exemption number	Substance name	Exemption usage	Validity status (End date)		Note
			Category 8	Category 9	
<b>Equipment utilising or detecting ionising radiation</b>					
1	Lead, Cadmium, Mercury	Lead, cadmium and mercury in detectors for ionising radiation	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) : FUNAI bans new procurement of parts/materials using the exemption.
2	Lead	Lead bearings in X-ray tubes.	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) : FUNAI bans new procurement of parts/materials using the exemption.
3	Lead	Lead in electromagnetic radiation amplification devices: micro-channel plate and capillary plate.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
4	Lead	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.	No longer valid	other than industrial: No longer valid	Category 8 and Category 9 (other than Industrial): FUNAI bans new procurement of parts/materials using the exemption.
5	Lead	Lead in shielding for ionising radiation.	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) : FUNAI bans new procurement of parts/materials using the exemption.
6	Lead	Lead in X-ray test objects.	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
7	Lead	Lead stearate X-ray diffraction crystals.	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
8	Cadmium	Radioactive cadmium isotope source for portable X-ray fluorescence spectrometers.	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
<b>Sensors, detectors and electrodes</b>					
1a	Lead, Cadmium	Lead and cadmium in ion selective electrodes including glass of pH electrodes.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
1b	Lead	Lead anodes in electrochemical oxygen sensors.	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) : FUNAI bans new procurement of parts/materials using the exemption.
1c	Lead, Cadmium, Mercury	Lead, cadmium and mercury in infra-red light detectors.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
1d	Mercury	Mercury in reference electrodes: low chloride mercury chloride, mercury sulphate and mercury oxide.	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
<b>Other</b>					
9	Cadmium	Cadmium in helium-cadmium lasers.	No longer valid	other than industrial: No longer valid	Category 8 and Category 9 (other than Industrial): FUNAI bans new procurement of parts/materials using the exemption.
10	Lead, Cadmium	Lead and cadmium in atomic absorption spectroscopy lamps.	No longer valid	other than industrial: No longer valid	Category 8 and Category 9 (other than Industrial): FUNAI bans new procurement of parts/materials using the exemption.
11	Lead	Lead in alloys as a superconductor and thermal conductor in MRI.	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) Category 9 (Industrial) : FUNAI bans new procurement of parts/materials using the exemption.
12	Lead, Cadmium	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	in vitro: No longer valid other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) : FUNAI bans new procurement of parts/materials using the exemption.
13	Lead	Lead in counterweights.	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) Category 9 (Industrial) : FUNAI bans new procurement of parts/materials using the exemption.
14	Lead	Lead in single crystal piezoelectric materials for ultrasonic transducers.	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) Category 9 (Industrial) : FUNAI bans new procurement of parts/materials using the exemption.
15	Lead	Lead in solders for bonding to ultrasonic transducers.	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) Category 9 (Industrial) : FUNAI bans new procurement of parts/materials using the exemption.
16	Mercury	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 20mg of mercury per switch or relay.	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
17	Lead	Lead in solders in portable emergency defibrillators.	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) Category 9 (Industrial) : FUNAI bans new procurement of parts/materials using the exemption.
18	Lead	Lead in solders of high performance infrared imaging modules to detect in the range 8-14 μ m.	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) Category 9 (Industrial) : FUNAI bans new procurement of parts/materials using the exemption.
19	Lead	Lead in Liquid crystal on silicon (LCoS) displays.	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
20	Cadmium	Cadmium in X-ray measurement filters.	Other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) Category 9 (Industrial) : FUNAI bans new procurement of parts/materials using the exemption.
21	Cadmium	Cadmium in phosphor coatings in image intensifiers for X-ray images until 31 December 2019 and in spare parts for X-ray systems placed on the EU market before 1 January 2020.	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.

# EU RoHS Directive Exemption List-2 (Annex IV) Ver.6r21

(Refer to the original EU RoHS Directive 2011/65/EU and relative official journal for more details.)

RoHS Exemption number	Substance name	Exemption usage	Validity status (End date)		Note
			Category 8	Category 9	
22	Lead	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	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
23	Lead	Lead as an alloying element for bearings and wear surfaces in medical equipment exposed to ionising radiation. Expires on 30 June 2021	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
24	Lead	Lead enabling vacuum tight connections between aluminium and steel in X-ray image intensifiers. Expires on 31 December 2019	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
25	Lead	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	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
26	Lead	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-	in vitro: No longer valid other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) : FUNAI bans new procurement of parts/materials using the exemption.
27	Lead	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 1m 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 1m 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	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 9 (industrial) : FUNAI bans delivery of parts/materials using the exemption.
28	Lead	Lead in solders for mounting cadmium telluride and cadmium zinc telluride digital array detectors to printed circuit boards. Expires on 31 December 2017	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
29	Lead	Lead in alloys, as a superconductor or thermal conductor, used in cryo-cooler cold heads and/or in cryo-cooled cold probes and/or in cryo-cooled equipotential bonding systems, in medical devices (category 8) and/or in industrial monitoring and control instruments. Expires on 30 June 2021	in vitro: No longer valid other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	industrial: No longer valid other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Category 8 (in vitro) and Category 9 (Industrial): FUNAI bans new procurement of parts/materials using the exemption.
30	Hexavalent chromium	Hexavalent chromium in alkali dispensers used to create photocathodes in X-ray image intensifiers until 31 December 2019 and in spare parts for X-ray systems placed on the EU market before 1 January 2020	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
31	Lead, Cadmium, Hexavalent chromium	Lead, cadmium and hexavalent chromium in reused spare parts, recovered from medical devices placed on the market before 22 July 2014 and used in category 8 equipment placed on the market before 22 July 2021, provided that reuse takes place in auditable closed-loop business-to-business return systems, and that the reuse of parts is notified to the consumer. Expires on 21 July 2021	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
31a	Lead, Cadmium, Hexavalent chromium, PBDE	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.  (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+D55	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Other than industrial: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
32	Lead	Lead in solders on printed circuit boards of detectors and data acquisition units for Positron Emission Tomographs which are integrated into Magnetic Resonance Imaging equipment. Expires on 31 December 2019	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
33	Lead	Lead in solders on populated printed circuit boards used in Directive 93/42/EEC class IIa and IIb mobile medical devices other than portable emergency defibrillators. Expires on 30 June 2016 for class IIa and on 31 December 2020 for class IIb	No longer valid	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
34	Lead	Lead as an activator in the fluorescent powder of discharge lamps when used for extracorporeal photopheresis lamps containing BSP (BaSi2O5:Pb) phosphors. Expires on 22 July 2021	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	
35	Mercury	Mercury in cold cathode fluorescent lamps for back-lighting liquid crystal displays, not exceeding 5mg per lamp, used in industrial monitoring and control instruments placed on the market before 22 July 2017 Expires on 21 July 2024	---	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
36	Lead	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	---	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.

# EU RoHS Directive Exemption List-2 (Annex IV) Ver.6r21

(Refer to the original EU RoHS Directive 2011/65/EU and relative official journal for more details.)

RoHS Exemption number	Substance name	Exemption usage	Validity status (End date)		Note
			Category 8	Category 9	
37	Lead	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 0,1mS/m and 5mS/m) in laboratory applications for unknown concentrations; (b) measurements of solutions where an accuracy of +/- 1% of the sample range and where high corrosion resistance of the electrode are required for any of the following:(i) solutions with an acidity < pH1; (ii) solutions with an alkalinity > pH 13; (iii) corrosive solutions containing halogen gas; (c) measurements of conductivities above 100mS/m that must be performed with portable instruments.  Expires on 31 December 2025	December 31, 2025	December 31, 2025	
38	Lead	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	No longer valid	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
39	Lead	Lead in micro-channel plates (MCPs) used in equipment where at least one of the following properties is present: (a) a compact size of the detector for electrons or ions, where the space for the detector is limited to a maximum of 3mm/MCP (detector thickness + space for installation of the MCP), a maximum of 6mm in total, and an alternative design yielding more space for the detector is scientifically and technically impracticable; (b) a two-dimensional spatial resolution for detecting electrons or ions, where at least one of the following applies: (i) a response time shorter than 25ns; (ii) a sample detection area larger than 149mm <sup>2</sup> ; (iii) a multiplication factor larger than 1.3×10 <sup>3</sup> . (c) a response time shorter than 5ns for detecting electrons or ions; (d) a sample detection area larger than 314mm <sup>2</sup> for detecting electrons or ions; (e) a multiplication factor larger than 4.0×10 <sup>7</sup> .  (a) 21 July 2021 for medical devices and monitoring and control instruments; (b) 21 July 2023 for in-vitro diagnostic medical devices; (c) 21 July 2024 for industrial monitoring and control instruments.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	Renewal requested and effective until the expiration date after promulgation of the Official Journal.	
40	Lead	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125V AC or 250V DC for industrial monitoring and control instruments.  Expires on 31 December 2020. May be used after that date in spare parts for industrial monitoring and control instruments placed on the market before 1 January 2021	---	No longer valid	FUNAI bans new procurement of parts/materials using the exemption.
41	Lead	Lead as a thermal stabiliser in polyvinyl chloride (PVC) used as base material in amperometric, potentiometric and conductometric electrochemical sensors which are used in in-vitro diagnostic medical devices for the analysis of blood and other body fluids and body gases.  Expires on 31 March 2022.	No longer valid	---	FUNAI bans delivery of parts/materials using the exemption.
42	Mercury	Mercury in electric rotating connectors used in intravascular ultrasound imaging systems capable of high operating frequency (> 50MHz) modes of operation.  Expires on 30 June 2019	other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	
43	Cadmium	Cadmium anodes in Hersch cells for oxygen sensors used in industrial monitoring and control instruments, where sensitivity below 10ppm is required  Expires on 15 July 2023	---	No longer valid	FUNAI bans delivery of parts/materials using the exemption.
44	Cadmium	Cadmium in radiation tolerant video camera tubes designed for cameras with a centre resolution greater than 450 TV lines which are used in environments with ionising radiation exposure exceeding 100 Gy/hour and a total dose in excess of 100kGy.  Applies to category 9. Expires on 31 March 2027.	---	March 31, 2027	
45	DEHP	Bis(2-ethylhexyl) phthalate (DEHP) in ion-selective electrodes applied in point of care analysis of ionic substances present in human body fluids and/or in dialysate fluids  Expires on 21 July 2028.	July 21, 2028	---	
46	DEHP	Bis(2-ethylhexyl) phthalate (DEHP) in plastic components in MRI detector coils.  Expires on 1 January 2024.	other than in vitro: Renewal requested and effective until the expiration date after promulgation of the Official Journal.	---	
47	DEHP, BBP, DBP, DIBP	Bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP) and diisobutyl phthalate (DIBP) in spare parts recovered from and used for the repair or refurbishment of medical devices, including in vitro diagnostic medical devices, 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 21 July 2028.	July 21, 2028	---	