

Material Declaration and Declaration of Conformity to RoHS

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Date of inquiry by Carl Zeiss AG (*) ⁽¹⁾ :	
Date of reply by supplier (*) ⁽¹⁾ :	

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Notes

Fields marked with (*) have a hidden comment which is only visible in the Excel file.

Fields marked with ⁽¹⁾ are mandatory fields.**RoHS and ElektroG/ElektroStoffV limit values**

Substance	Limit value [percent by weight]
Lead (Pb)	0.1
Mercury (Hg)	0.1
Hexavalent chromium (Cr(VI))	0.1
Cadmium (Cd)	0.01
Polybrominated biphenyls (PBB)	0.1
Polybrominated diphenyl ethers (PBDE)	0.1
Bis(2-ethylhexyl)phthalate (DEHP)	0.1
Butylbenzylphthalate (BBP)	0.1
Dibutylphthalate (DBP)	0.1
Diisobutylphthalate (DIBP)	0.1

Homogeneous Material	
The reference for the specifications provided is a homogeneous material which cannot be further decomposed. A homogeneous material is characterized by a totally uniform composition. The term "not mechanically decomposable" means that materials cannot be separated by activities such as unscrewing, cutting, breaking, grinding or emerying.	

Exemptions in RoHS 2011/65/EC (Annex III), Status: November, 15, 2017

Exemption	Substance	Text of exemption
1	Hg	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):
1a		For general lighting purposes < 30 W: 5 mg (expires on 31.12.2011; 3,5 mg may be used per burner after 31.12.2011 until 31.12.2012; 2,5 mg shall be used per burner after 31.12.2012)
1b		For general lighting purposes ≥ 30 W und < 50 W: 5 mg (expires on 31.12.2011 ab; 3,5 mg may be used per burner after 31.12.2011)
1c		For general lighting purposes ≥ 50 W und < 150 W: 5 mg
1d		For general lighting purposes ≥ 150 W: 15 mg
1e		For general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm (no limitation of use until 31.12.2011; 7 mg may be used per burner after 31.12.2011)
1f		For special purpose: 5 mg
1g		For general lighting purposes < 30 W with a lifetime equal or above 20 000 h: 3,5 mg; expires on 31 December 2017
2a	Hg	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp):
2a.I		Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e. g. T2): 5 mg (expires on 31.12.2011; 4 mg may be used per lamp after 31.12.2011)
2a.II		Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm und ≤ 17 mm (e. g. T5): 5 mg (expires on 31.12.2011; 3 mg may be used per lamp after 31.12.2011)
2a.III		Tri-band phosphor with normal lifetime and a tube diameter > 17 mm und ≤ 28 mm (e. g. T8): 5 mg (expires on 31.12.2011; 3,5 mg may be used per lamp after 31.12.2011)
2a.IV		Tri-band phosphor with normal lifetime and a tube diameter > 28mm (e. g. T12): 5 mg (expires on 31.12.2012; 3,5 mg may be used per lamp after 31.12.2012)
2a.V		Tri-band phosphor with long lifetime (≥ 25.000 h): 8 mg (expires on 31.12.2011; 5 mg may be used per lamp after 31.12.2011)
2b	Hg	Mercury in other fluorescent lamps not exceeding (per lamp):
2b.I		Linear halophosphate lamps with tube > 28 mm (e. g. T10 und T12): 10 mg (expires on 13.04.2012)
2b.II		Non-linear halophosphate lamps (all diameters): 15 mg (expires on 13.04.2016)
2b.III		Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e. g. T9) (no limitation of use until 31.12.2011; 15 mg may be used per lamp after 31.12.2011)
2b.IV		Lamps for other general lighting and special purposes (e.g. induction lamps) (no limitation of use until 31.12.2011; 15 mg may be used per lamp after 31.12.2011)
3	Hg	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp):
3a		Short length (≤ 500 mm) (no limitation of use until 31.12.2011; 3,5 mg may be used per lamp after 31.12.2011)
3b		Medium length (> 500 mm und ≤ 1500 mm) (no limitation of use until 31.12.2011; 5 mg may be used per lamp after 31.12.2011)
3c		Long length (> 1500 mm) (no limitation of use until 31.12.2011; 13 mg may be used per lamp after 31.12.2011)
4a	Hg	Mercury in other low pressure discharge lamps (per lamp) (no limitation of use until 31.12.2011; 15 mg may be used per lamp after 31.12.2011)
4b	Hg	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60:
4b.I		P ≤ 155 W (no limitation of use until 31.12.2011; 30 mg may be used per burner after 31.12.2011)
4b.II		155 W < P ≤ 405 W (no limitation of use until 31.12.2011; 40 mg may be used per burner after 31.12.2011)
4b.III		P > 405 W (no limitation of use until 31.12.2011; 40 mg may be used per burner after 31.12.2011)

4c	Hg	Mercury in other High Pressure Dosium (vapour) lamps for general lighting purposes not exceeding (per burner):
4c.I		P ≤ 155 W (no limitation of use until 31.12.2011; 25 mg may be used per burner after 31.12.2011)
4c.II		155 W < P ≤ 405 W (no limitation of use until 31.12.2011; 30 mg may be used per burner after 31.12.2011)
4c.III		P > 405 W (no limitation of use until 31.12.2011; 40 mg may be used per burner after 31.12.2011)
4d	Hg	Mercury in High Pressure Mercury (vapour) lamps (HPMV) (expires on 15.04.2015)
4e	Hg	Mercury in Metal Halide lamps (MH)
4f	Hg	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex
4g	Hg	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'
5a	Pb	Lead in glass of cathode ray tubes
5b	Pb	Lead in glass of fluorescent tubes not exceeding 0,2% by weight
6a	Pb	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.
6b	Pb	Lead as an alloying element in aluminium containing up to 0,4% lead by weight. 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.
6b.I	Pb	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.
6b.II	Pb	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.
6c	Pb	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.
7a	Pb	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead). 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.
7b	Pb	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission and network management for telecommunication
7c.I	Pb	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.
7c.II	Pb	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.
7c.III	Pb	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC (expires on 01.01.2013 and after that date may be used in spare parts for EEE placed on the market before 01.01.2013)
7c.IV		Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors. 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.
8a	Cd	Cadmium and its compounds in one shot pellet type thermal cut-offs (expires on 01.01.2012 and after that date may be used in spare parts for EEE placed on the market before 01.01.2012)
8b	Cd	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.
8bI	Cd	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: o6 A and more at 250 V AC and more, or o12 A and more at 125 V AC and more, -DC switches rated at 20 A and more at 18 V DC and more, and -Switches for use at voltage supply frequency ≥= 200 Hz.
9	Cr(VI)	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
9b	Pb	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.

9b.I	Pb	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.
11a	Pb	Lead used in C-press compliant pin connector systems (may be used in spare parts for EEE placed on the market before 24.09.2010)
11b	Pb	Lead used in other than C-press compliant pin connector systems (expires on 01.01.2013 and after that date may be used in spare parts for EEE placed on the market before 01.01.2013)
12	Pb	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).
13a	Pb	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.
13b	Pb und Cd	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.
13b.I	Pb	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.
13b.II	Cd	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.
13b.III	Pb + Cd	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.
14	Pb	Lead in solders consisting of more than two elements for the connection between pins and the package of microprocessors with a lead content of more than 80% and less than 85% by weight (expired on 01.01.2011 and after that date may be used in spare parts for EEE placed on the market before 01.01.2011)
15	Pb	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
15a	Pb	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: -A semiconductor technology node of 90 nm or larger; -A single die of 300 mm ² or larger in any semiconductor technology node; -Stacked die packages with die of 300 mm ² or larger, or silicon interposers of 300 mm ² or larger. Applies to category 1 to 7 and 10 and expires on 21 July 2021.
16	Pb	Lead in linear incandescent lamps with silicate coated tubes (expires on 01.09.2013)
17	Pb	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications
18a	Pb	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) (expired on 01.01.2011)
18b	Pb	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.
18b.I	Pb	Lead as activator in the fluorescent powder (1% lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi ₂ O ₅ :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.
19	Pb	Lead with PbBiSn-Hg and PblnHg-Pb in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact energy saving lamps (ESL) (expired on 01.06.2011)
20	Pb	Lead oxide on glass used for bonding front and rear substrates of fluorescent lamps used for Liquid Crystal Displays (LCDs) (expired on 01.06.2011)
21	Pb + Cd	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.
21a	Cd	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 21b or entry 39 and expires on 21 July 2021.
21b	Cd	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 21a or 39 and expires on 21 July 2021.
21c	Pb	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.
23	Pb	Lead in finishes of fine pitch components other than connectors with a pitch of 0,65 mm or less (may be used in spare parts or EEE placed on the market before 24.09.2010)
24	Pb	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.
25	Pb	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring
26	Pb	Lead oxide in the glass envelope of black light blue lamps (expired on 01.06.2011)
27	Pb	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 24.09.2010)
29	Pb	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC. 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.
30	Cd	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
31	Pb	Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, desing or industrial lighting)
32	Pb	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.
33	Pb	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers

34	Pb	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.
36	Hg	Mercury used as a cathode sputtering inhibitor in DC plasma displays with a content up to 30 mg per display (expired on 01.07.2010)
37	Pb	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.
38	Cd	Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide
39	Cd	Cadmium in colour-converting II-VI LEDs (< 10 µg Cd per mm ² of light-emitting area) for use in solid-state illumination or display systems (expires on 1 July 2014)
39a	Cd	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 for all categories on [two years after the publication of the Delegated Directive in the Official Journal].
40	Cd	Cadmium in photoresistors for analogue optocouplers applied in professional audio equipment, expires on 31 December 2013
41	Pb	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(*). (* Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery (OJ L 59, 27.2.1998, p. 1), expires on 31 December 2018
42	Pb	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.

Exemptions in RoHS 2011/65/EC (Annex IV, specific to medical devices and monitoring and control instruments), Status: November, 15, 2017

Exemption	Substance	Text of exemption
Equipment utilising or detecting ionising radiation		
1	Pb, Cd, Hg	Lead, cadmium and mercury in detectors for ionising radiation, expires on 21 July 2021
2	Pb	Lead bearings in x-ray tubes, expires on 21 July 2021
3	Pb	Lead in electromagnetic radiation amplification devices: micro-channel plate and capillary plate, expires on 21 July 2021
4	Pb	Lead in 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, expires on 21 July 2021
5	Pb	Lead in shielding for ionising radiation, expires on 21 July 2021
6	Pb	Lead in x-ray test objects, expires on 21 July 2021
7	Pb	Lead stearate x-ray diffraction crystals, expires on 21 July 2021
8	Cd	Radioactive cadmium isotope source portable x-ray fluorescence spectrometers, expires on 21 July 2021
Sensors, detectors and electrodes		
1a	Pb, Cd	Lead and cadmium in ion selective electrodes including glass of pH electrode, expires on 21 July 2021
1b	Pb	Lead anodes in electrochemical oxygen sensors, expires on 21 July 2021
1c	Pb, Cd, Hg	Lead, cadmium and mercury in infra-red light detectors, expires on 21 July 2021
1d	Hg	Mercury in reference electrodes: low chloride mercury chloride, mercury sulfate and mercury oxide, expires on 21 July 2021
Others		
9	Cd	Cadmium in helium-cadmium lasers, expires on 21 July 2021
10	Pb, Cd	Lead and cadmium in atomic absorption spectroscopy lamps, expires on 21 July 2021
11	Pb	Lead in alloys as a superconductor and thermal conductor in MRI, , expires on 21 July 2021
12	Pb, Cd	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
13	Pb	Lead in counterweights, , expires on 21 July 2021
14	Pb	Lead in single crystal piezoelectric materials for ultrasonic transducers, , expires on 21 July 2021
15	Pb	Lead in solders for bonding to ultrasonic transducers, , expires on 21 July 2021
16	Hg	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, , expires on 21 July 2021
17	Pb	Lead in solders in portable emergency defibrillators, , expires on 21 July 2021
18	Pb	Lead in solders of high performance infrared imaging modules to detect in the range 8-14 µm, , expires on 21 July 2021
19	Pb	Lead in Liquid crystal on silicon (LCoS) displays, , expires on 21 July 2021
20	Cd	Cadmium in X-ray measurement filters, , expires on 21 July 2021
21	Cd	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
22	Pb	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
23	Pb	Lead as an alloying element for bearings and wear surfaces in medical equipment exposed to ionising radiation. Expires on 30 June 2021

24	Pb	Lead enabling vacuum tight connections between aluminium and steel in X-ray image intensifiers. Expires on 31 December 2019
25	Pb	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.
26	Pb	Lead in the following applications that are used durably at a temperature below -20 °C under normal operating and storage conditions: a) solders on printed circuit boards; b) Termination coatings of electrical and electronic components and coatings of printed circuit boards; c) Solders for connecting wires and cables; d) Solders connecting transducers and sensors. Lead in solders of electrical connections to temperature measurement sensors in devices which are designed to be used periodically at temperatures below -150 °C. These exemptions expire on 30 June 2021.
27	Pb	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.
28	Pb	Lead in solders for mounting cadmium telluride and cadmium zinc telluride digital array detectors to printed circuit boards. Expires on 31 December 2017.
29	Pb	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.
30	Cr(VI)	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.
31a	Pb, Cd, Cr(VI)	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: - 21 July 2021 for the use in medical devices other than in vitro diagnostic; - 21 July 2023 for the use in in vitro diagnostic medical devices; - 21 July 2024 for the use in electron microscopes and their accessories.
32	Pb	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.
33	Pb	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
34	Pb	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.
35	Hg	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.'
36	Pb	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.'
37	Pb	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 laboratory applications for unknown concentrations; (b) measurements of solutions where an accuracy of +/- 1 % of the sample range and where high corrosion resistance of the electrode are required for any of the following: (i) solutions with an acidity < pH 1; (ii) solutions with an alkalinity > pH 13; (iii) corrosive solutions containing halogen gas; (c) measurements of conductivities above 100 mS/m that must be performed with portable instruments. Expires on 31 December 2018.'
38	Pb	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.'
39	Pb	Lead in micro-channel plates (MCPs) used in equipment where at least one of the following properties is present: (a) a compact size of the detector for electrons or ions, where the space for the detector is limited to a maximum of 3 mm/MCP (detector thickness + space for installation of the MCP), a maximum of 6 mm in total, and an alternative design yielding more space for the detector is scientifically and technically impracticable; (b) a two-dimensional spatial resolution for detecting electrons or ions, where at least one of the following applies: (i) a response time shorter than 25 ns; (ii) a sample detection area larger than 149 mm ² ; (iii) a multiplication factor larger than 1,3 × 10 ³ . (c) a response time shorter than 5 ns for detecting electrons or ions; (d) a sample detection area larger than 314 mm ² for detecting electrons or ions; (e) a multiplication factor larger than 4,0 × 10 ⁷ . The exemption expires on the following dates: (a) 21 July 2021 for medical devices and monitoring and control instruments; (b) 21 July 2023 for in-vitro diagnostic medical devices; (c) 21 July 2024 for industrial monitoring and control instruments.'
40	Pb	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC for industrial monitoring and control instruments. Expires on 31 December 2020. May be used after that date in spare parts for industrial monitoring and control instruments placed on the market before 1 January 2021.'
41	Pb	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.
42	Hg	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.
43	Cd	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.

Declaraion of conformity to RoHS

Consecutive number	Carl Zeiss AG material number (*)	Carl Zeiss AG purchase order text(*)	Supplier's material number (*)	Supplier's item designation (*)	Manufacturer (*)	Manufacturing location (*)	Conformity to RoHS												other								
							Full conformity to RoHS without any RoHS-exemption (yes/no) (*)	Conformity to RoHS using one of the exemptions listed in the Appendix of RoHS (please tick if applicable and note number of exemption) (*)	No conformity to RoHS (please tick if applicable) (*)	Pb (lead)	Cd (cadmium)	Hg (mercury)	Cr(VI) (hexavalent chromium)	PBB (polybrominated biphenyls)	PBDE (polybrominated diphenyl ethers)	DEHP (bis(2-ethylhexyl)-phthalate)	BBP (butylbenzyl-phthalate)	DBP (dibutyl-phthalate)	DIBP (diisobutyl-phthalte)	Currently no, but will be available in RoHS-compliant form as of (enter date) (*)	No information can be provided (tick if applicable) (*)	Type of connection material (i.e. solder) ? (*)	Is lead-free finishing provided (yes/no) ? (*)	Peak temperature [°C] (*)	UL-List number (*)	Are there any technical modifications (yes/no) ? (*)	Impact on pricing? (yes/no) (*)
																				Conformity to RoHS (yes/no) (*)	Conformity to RoHS (yes/no) (*)	Conformity to RoHS (yes/no) (*)	Conformity to RoHS (yes/no) (*)	Conformity to RoHS (yes/no) (*)	Conformity to RoHS (yes/no) (*)	Conformity to RoHS (yes/no) (*)	Conformity to RoHS (yes/no) (*)
Qualitative specification of substances where the RoHS limit value is exceeded (please tick as applicable). If quantitative specification is possible, please enter the concentration in percent by weight (*).																											

Declaration of conformity (as per IPC 1752 form, version 1.0R RoHS)

By submitting this form, you confirm that every item listed in this form is in compliance with the requirements stipulated by RoHS in the applicable version, or is exempt for the reason(s) stated. You hereby also confirm that you have made the determination using appropriate systems and processes to ensure the provision of accurate supplier data, that you use appropriate methods of verifying and auditing the information available, and maintain adequate records to ensure traceability of the products concerned. In addition, you agree that your name is given to authorities if required for defense purposes, in the event that the action of a natural or juridical person relying on the correctness of the present declaration should lead to prosecution by the authorities in accordance with the above-mentioned RoHS directive on grounds of inaccuracies or incorrect information contained in this declaration.

Supplier

Company (*):
Name (*):
Position in the company (*):
Date (*):
Legally binding signature (*):

Verifier

Company (*):
Name (*):
Position in the company (*):
Date (*):
Legally binding signature (*):