EU issued final evaluation report on RoHS exemption clauses

On January 13, 2022, the European Union issued the final evaluation results of the RoHS Exemption Clause 6(a), 6(a)-I, 6(b), 6(b)-I, 6(b)-II, 6(c), 7(a) , 7(c)-I and 7(c)-II. The evaluation results show that some exemption clauses will no longer be extended, and the exemption scope of some clauses will become more refined. In the follow-up, the EU will issue a draft revision of RoHS based on the evaluation results. After the revision draft is approved, the EU will issue a formal EU RoHS revision directive to modify the above exemption clauses.

The final evaluation results are summarized below:

No.	Exemptions use	The deadline of exemption
6(a)	Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight and in galvanized steel containing up to 0,35 % lead by weight.	— 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.
6(a)-I	Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight.	Expires on 21 July 2024 for all categories.
6(a)-II	Lead as an alloying element in batch hot dip galvanised steel components containing up to 0,2 % lead by weight.	Expires on 21 July 2026 for all categories.
6(b)	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight.	— 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.
6(b)-I	Lead as an alloying element in aluminium containing up to 0,4% lead by weight provided it stems from lead-bearing aluminium scrap recycling.	Expires 12 months after the decision for all categories.
6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight.	Expires 18 months after the decision for all categories
6(b)-III	Lead as an alloying element in aluminium casting alloys containing up to 0,3% lead by weight provided it stems from lead-bearing aluminium scrap recycling.	Expires on 21 July 2026 for all categories.
6(b)-IV	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight in gas valves applied in category 1 EEE (large household appliances).	Expires on 31 December 2024.
6(c)	Copper alloy containing up to 4 % lead by weight.	Expires on 21 July 2026 for all categories.
7(a)	Lead in high melting temperature type solders (i.e., lead-based alloys containing 85 % by weight or more lead) (excludes those in	For all categories except applications covered by point 24 of this Annex,

	the scope of exemption 24).	expires on 21 July 2024.
	Lead in high melting temperature type solders (i.e., lead-based alloys containing 85 % by weight or more lead) when used for the following applications (excludes those in the scope of exemption 24): I) for internal interconnections for attaching die, or other components along with a die in semiconductor assembly with steady state or transient/impulse currents of 0.1 A or greater or blocking voltages beyond 10 V, or die edge sizes larger than 0.3 mm x 0.3 mm, II) for integral (meaning internal and external) connections of die attach in electrical and electronic components, if the thermal conductivity of the cured/sintered die-attach material is >35W/(m*K) AND the electrical conductivity of the cured/sintered die-attach material shall be >4.7MS/m AND solidus melting temperature has to be above 260°C, III) In first level solder joints (internal or integral connections - meaning internal and external) for manufacturing components so that subsequent mounting of electronic components onto subassemblies (i.e., modules or sub-circuit boards or substrates or point to point soldering) with a secondary solder does not reflow the first level solder. This item excludes die attach applications and hermetic sealings, IV) In second level solder joints for the attachment of components to printed circuit board or lead frames: 1. in solder balls for the attachment of ceramic ball-grid-array (BGA), 2. in high temperature plastic overmouldings (> 220 °C), V) as a hermetic sealing material between: 1. a ceramic package or plug and a metal case, 2. component terminations and an internal sub-part, VI) for establishing electrical connections between lamp components in incandescent reflector lamps for infrared heating or high intensity discharge lamps or oven lamps, VII) for audio transducers where the peak operating temperature exceeds 200°C,	Applies to all categories except applications covered by point 24 of this Annex, expires on 21 July 2026.
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.	Expires on 21 July 2024 for all categories.
7(c)-II	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 2026 for all categories.
7(c)-V	Electrical and electronic components containing lead in a glass or glass matrix compound that fulfils the following functions: 1) protection and electrical insulation in glass beads of high voltage diodes and glass layers for wafer on the basis of a lead-zinc-borate or a lead-silica-borate glass body,* 2) for hermetic sealings between ceramic, metal and/or glass parts, 3) for bonding purposes in a process parameter window for < 500°C combined with a viscosity of 1013,3 dPas (so called “glass-transition temperature”). 4) used as resistance materials such as ink, with a resistivity range from 1 Ohms/square to 1 Mega Ohms/square, excluding trimmer potentiometers** 5) used in chemically modified glass surfaces for Microchannel Plates (MCPs), Channel Electron Multipliers (CEMs) and Resistive Glass Products (RGPs).	Expires on 21 July 2026 for all categories.
7(c)-VI	Electrical and electronic components containing lead in a ceramic that fulfils the following functions (excluding items covered under item 7(c)-II, 7(c)-III and 7(c)-IV of this annex): 1) piezoelectric lead zirconium titanate (PZT) ceramics, 2) providing ceramics with a positive temperature coefficient (PTC).	Expires on 21 July 2026 for all categories.

HCT SOLUTION：

After more than a year of evaluation, the Oeko Institut released final evaluation report of pack 22. According to the evaluation report, most of exemption clauses will continue to extend their validity in the future, but the exemption scope of a few clauses will change. HCT reminds relevant enterprises to continue to pay attention to the latest developments of the above exemption clauses to ensure the legal compliance of products.

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