## THE RSTS SCOOP



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## **Exemptions of RoHS Directive Updated**

The <u>RoHS Directive</u> aims to prevent the risks posed to human health and the environment related to the management of electronic and electrical waste by restricting the use of certain hazardous substances such as heavy metals, flame retardants or plasticizers in EEE that can be substituted by safer alternatives.

However, this legislation also allows for exemptions from its restrictions, under certain conditions defined in article 5(1), adapting the Annexes to scientific and technical progress and are listed in Annex III and Annex IV. The exemptions in Annex III are suitable for all EEE. Meanwhile, the exemptions in Annex IV are only suitable for medical devices and monitoring and control instruments.

Recently, the EU has published regulation <u>(EU) 2025/2364</u>, <u>(EU) 2025/1802</u>, and <u>(EU) 2025/2363</u> regarding updates on RoHS Exemptions as shown in the following table.

EXEMPTION	EXPIRY DATE
6(a). Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight.	Expires on 11 December 2026
<b>6(a)-I.</b> 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 30 June 2027 for all categories
<b>6(a)-II.</b> Lead as an alloying element in batch hot-dip galvanised steel components containing up to 0,2 % lead by weight.	Expires on 30 June 2027 for all categories
<b>6(b).</b> Lead as an alloying element in aluminium containing up to 0.4 % lead by weight	Expires on 11 June 2027
<b>6(b)-I.</b> 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 11 December 2026 for categories 1-7, 10
	Expires on 30 June 2027 for categories 9 industrial monitoring and control instruments, and 11.
6(b)-II. Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight	Expires on 11 June 2027 for categories 1-7, 10
	Expires on 30 June 2027 for categories 9 industrial monitoring and control instruments and 11 (*)
<b>6(b)-III.</b> 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 (*1)	Expires on 30 June 2027 for categories 1-8, 9 other than industrial monitoring and control instruments, and 10.
6(c). Copper alloy containing up to 4% lead by weight	Expires on 30 June 2027.
7(a). Lead in high melting temperature type solder (i.e. lead-based alloys containing 85% by weight or more lead)	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 30 June 2027.
7(a)-I. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
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 $\times$ 0,3 mm	

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EXEMPTION	EXPIRY DATE
7(A)-II. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
For integral (meaning internal and external) connections of die attach in electrical and electronic components, if all the following conditions are met:	
<ul> <li>the thermal conductivity of the cured/sintered die-attach material is &gt; 35 W/(m x K),</li> <li>the electrical conductivity of the cured/sintered die-attach material is &gt;</li> </ul>	
4,7 MS/m, solidus melting temperature is higher than 260 °C	
7(a)-III. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
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, sub-circuit boards, substrates, or point-to-point soldering) with a secondary solder does not reflow the first level solder. This sub-entry excludes die attach applications and hermetic sealings	
7(a)-IV. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
In second level solder joints for the attachment of components to printed circuit board or lead frames:	
<ul> <li>in solder balls for the attachment of ceramic ball-grid-array (BGA);</li> <li>in high temperature plastic overmouldings (&gt; 220 °C)</li> </ul>	
7(a)-V. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
As a hermetic sealing material between:	
<ul> <li>a ceramic package or plug and a metal case;</li> <li>component terminations and an internal sub-part</li> </ul>	
7(a)-VI. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
For establishing electrical connections between lamp components in incandescent reflector lamps for infrared heating, high intensity discharge lamps, or oven lamps	
7(a)-VII. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
For audio transducers where the peak operating temperature exceeds 200 °C	
7(b). Lead in solder for servers, storage array systems, network infrastructure equipment for switching, signaling transmission, and network management for	21 July 2023 for category 8 in vitro diagnostic medical devices
telecommunications.	21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11  Other categories - expired
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	Applies to all categories and expires on 30 June 2027.
7(c)-II. Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	Applies to all categories (except applications covered by point 7(c)-I or 7(c)-IV) and expires on 31 December 2027.

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EXEMPTION	EXPIRY DATE
7(c) -V. Electrical and electronic components containing lead in a glass or glass matrix compound that fulfils any of the following functions:	Applies to all categories and expires on 31 December 2027.
<ul> <li>for protection and electrical insulation in glass beads of high-voltage diodes and glass layers for wafers;</li> <li>for hermetic sealing between ceramic, metal and/or glass parts;</li> <li>for bonding purposes in a process parameter window for &lt; 500°C combined with a viscosity of 1,013.3 dPas ('glass-transition temperature');</li> <li>for use as a resistive material such as ink, with a resistivity range from 1 ohm/square to 100 megohm/square, excluding trimmer potentiometers;</li> <li>for use in chemically modified glass surfaces for microchannel plates (MCPs), channel electron multipliers (CEMs) and resistive glass products (RGPs).</li> </ul>	
7(c)-VI. Electrical and electronic components containing lead in a ceramic that fulfils any of the following functions:	Applies to all categories (except applications covered by points 7(c)-II, 7(c)-III and 7(c)-IV of this
<ul> <li>for use in piezoelectric lead zirconium titanate (PZT) ceramics;</li> <li>for providing ceramics with a positive temperature coefficient (PTC).</li> </ul>	Annex as well as point 14 of Annex IV) and expires on 31 December 2027.

Independent and innovative, SGS' Electrical & Electronics experts use state-of-the-art facilities and technology to deliver tailor made, value-added services that help improve your business, smoothening your products' path to market anywhere in the world.

For more information on our RoHS services, please contact our <u>Customer Service team</u>.