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From:	Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director
date of receipt:	8 September 2025
To:	Ms Thérèse BLANCHET, Secretary-General of the Council of the European Union
No. Cion doc.:	C(2025) 5939 final - Annex
Subject:	ANNEX to Commission Delegated Directive amending Directive 2011/65/EU of the European Parliament and of the Council as regards an exemption for lead in high melting temperature solders

Delegations will find attached document C(2025) 5939 final - Annex.

Encl.: C(2025) 5939 final - Annex



EUROPEAN
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Brussels, 8.9.2025
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ANNEX

ANNEX

to

Commission Delegated Directive

**amending Directive 2011/65/EU of the European Parliament and of the Council as
regards an exemption for lead in high melting temperature solders**

ANNEX

In Annex III to Directive 2011/65/EU, point 7(a) is replaced by the following:

7(a)	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 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) 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	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
7(a)-II	Lead in high melting temperature type solders (i.e., lead-based alloys containing 85% by weight or more lead) for integral (meaning internal and external) connections of die attach in electrical and electronic components, if all the following conditions are met: - the thermal conductivity of the cured/sintered die-attach material is $>35\text{W}/(\text{m}\cdot\text{K})$, - the electrical conductivity of the cured/sintered die-attach material is $>4.7\text{MS}/\text{m}$, - solidus melting temperature is higher than 260°C	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
7(a)-III	Lead in high melting temperature type solders (i.e., lead-based alloys containing 85% by weight or more lead) 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	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.

	applications and hermetic sealings	
7(a)-IV	<p>Lead in high melting temperature type solders (i.e., lead-based alloys containing 85% by weight or more lead)</p> <p>in second level solder joints for the attachment of components to printed circuit board or lead frames:</p> <ol style="list-style-type: none"> 1. in solder balls for the attachment of ceramic ball-grid-array (BGA) 2. in high temperature plastic overmouldings (> 220 °C) 	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
7(a)-V	<p>Lead in high melting temperature type solders (i.e., lead-based alloys containing 85% by weight or more lead)</p> <p>as a hermetic sealing material between:</p> <ol style="list-style-type: none"> 1. a ceramic package or plug and a metal case, 2. component terminations and an internal sub-part 	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
7(a)-VI	<p>Lead in high melting temperature type solders (i.e., lead-based alloys containing 85% by weight or more lead)</p> <p>for establishing electrical connections between lamp components in incandescent reflector lamps for infrared heating, high intensity discharge lamps, or oven lamps</p>	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.
7(a)-VII	<p>Lead in high melting temperature type solders (i.e., lead-based alloys containing 85% by weight or more lead)</p> <p>for audio transducers where the peak operating temperature exceeds 200°C</p>	Applies to all categories (except applications covered by point 24 of this Annex) and expires on 31 December 2027.’