

### EU RoHS Exemption and expiration statement

The majority of Texas Instruments' (TI) IC components do not require RoHS exemptions. When TI IC components require an EU RoHS exemption, one of the following may apply:

Exemption	Description	Renewal Date	Directive Update
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	<ul style="list-style-type: none"> <li>- 21 July 2021 Categories 1-7 and 10</li> <li>- 21 July 2021 Categories 8 and 9</li> <li>- 21 July 2023 Category 8 in vitro</li> <li>- 21 July 2024 Categories 9 Industrial &amp; 11</li> </ul>	(EU) 2018/739
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound	<ul style="list-style-type: none"> <li>- July 21, 2021 for 1 to 7 and 10 &amp; 8 and 9 other than in vitro</li> <li>- 21 July 2023 8 <i>in vitro</i></li> <li>- 21 July 2024 9 industrial and 11</li> </ul>	(EU) 2018/736
15 (a)*	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: <ul style="list-style-type: none"> <li>- A semiconductor technology node of 90 nm or larger;</li> <li>- A single die of 300 mm<sup>2</sup> or larger in any semiconductor node;</li> <li>- Stacked die packages with die of 300 mm<sup>2</sup> or larger, or silico interposers of 300 mm<sup>2</sup> or larger</li> </ul>	<ul style="list-style-type: none"> <li>- July 21, 2021 for 1 to 7 and 10</li> </ul>	
15*	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages	<ul style="list-style-type: none"> <li>- July 21, 2021 for 8 and 9</li> <li>- July 21, 2023 for 8 In Vitro</li> <li>- July 21, 2024 for 9 Industrial and 11</li> </ul>	

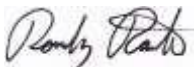
TI continues to support the need for extending these exemptions by working with electronic industry consortia. Initial documents have been prepared for the next round of EU RoHS exemption extensions as required.

Since exemptions will be required beyond July 2021, TI was engaged with the extension of exemptions needed for specific IC products and led the efforts within Europe and North America for exemption 15(a)/15 renewal documentation. TI also supported the efforts for exemptions 7(a) and 7(c)-I. The renewal process requires forms to be submitted to the EU RoHS Commission 18 months prior to the exemption expiration date. The appropriate renewal forms were submitted in Jan 2020 to meet this requirement. It is now up to the EU RoHS Commission to evaluate the submissions, ask questions and receive appropriate industry responses until they can reach a decision.

Please note, the length of the evaluation & decision process is unknown. If no decision is made by the time an exemption expires, the exemption remains in effect until a decision and formal documentation has been publicly released by the EU RoHS Commission. As an example: the previous evaluation of exemption 15 expired in July 2016 - but an official decision and publication of the renewal was not released until February 2019.

\* TI claims RoHS Exemption 15(a) when products meet the criteria in the EU RoHS directive for flip chip components). TI IC products using Exemption 15(a) cannot claim the use Exemption 15, but customers designing products falling under the requirements for Exemption 15 may claim its use.

Sincerely,



Randy Rath  
TI SC Product Stewardship Management

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