

Commission Delegated Directive (EU) 2017/1975 of 7 August 2017 amending, for the purposes of adapting to scientific and technical progress, Annex III to Directive 2011/65/EU of the European Parliament and of the Council as regards an exemption for cadmium in colour converting light-emitting diodes (LEDs) for use in display systems (Text with EEA relevance)

COMMISSION DELEGATED DIRECTIVE (EU) 2017/1975

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(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment⁽¹⁾, and in particular Article 5(1)(a) thereof,

Whereas:

- (1) Directive 2011/65/EU requires Member States to ensure that electrical and electronic equipment placed on the market does not contain cadmium.
- (2) Point 39 in Annex III to Directive 2011/65/EU exempted the use of cadmium in colour converting light-emitting diodes (LEDs) for illumination and display applications from the prohibition until 1 July 2014. The Commission received an application for renewal of this exemption before 1 January 2013, in accordance with Article 5(5) of Directive 2011/65/EU.
- (3) Colour converting LEDs using quantum dots have been shown advantageous as compared to earlier technology regarding energy efficiency and colour performance. The overall balance of the use of cadmium-based quantum dots in displays has a positive impact due to their lower energy consumption as compared to currently available alternative technologies. The total negative environmental, health and consumer safety impacts caused by substitution of cadmium-based quantum dots in display applications where quantum dots are used are likely to outweigh the total environmental, health and consumer safety benefits thereof.
- (4) The use of cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications should therefore be exempted from the prohibition for the period of two years after the publication of the Delegated Directive in the *Official Journal of the European Union*. This short validity

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period for the exemption is unlikely to have adverse impacts on innovation and the development of cadmium free alternatives.

- (5) Cadmium-based quantum dot LEDs for illumination are not yet available on the market and their potential advantages in comparison with existing technologies are not properly quantifiable, thus a renewal of the exemption as regards illumination applications is not justified.
- (6) Annex III to Directive 2011/65/EU should therefore be amended accordingly,

HAS ADOPTED THIS DIRECTIVE:

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(1) [OJ L 174, 1.7.2011, p. 88.](#)