

Commission Delegated Directive (EU) 2016/1028 of 19 April 2016 amending, for the purposes of adapting to technical progress, Annex IV to Directive 2011/65/EU of the European Parliament and of the Council as regards an exemption for lead in solders of electrical connections to temperature measurement sensors in certain devices (Text with EEA relevance)

COMMISSION DELEGATED DIRECTIVE (EU) 2016/1028

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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 prohibits the use of lead in electrical and electronic equipment placed on the market.
- (2) Lead is used for electrical connections in cryogenic sensors for medical devices and monitoring and control instruments to prevent the formation of thick intermetallic phases, whiskers, and tin pest. Those sensors are used in some applications to measure very low temperatures for short periods.
- (3) Lead-free solders cannot be used in cryogenic applications, as they are prone to tin pest, which seriously affects the reliability of the appliances. It has been proven that, in typically operated cryogenic sensors, no alternative connection technologies other than soldering are both reliable and available.
- (4) Lead solders in the external contacts of temperature sensors that are used periodically at temperatures below – 150 °C should therefore be exempted until 30 June 2021, as the exemption in point 26 of Annex IV to Directive 2011/65/EU. In view of the innovation cycles for medical devices and monitoring and control instruments, duration of this exemption is unlikely to have adverse impacts on innovation.
- (5) Directive 2011/65/EU should therefore be amended accordingly,

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