FRECOM

Statement on Restriction of Hazardous Substances (RoHS) for Frecom's Products

Chenzhou Frecom Electronics Co., Ltd and Dongguan Frecom holdings Co., Ltd.(Frecom)'s products are designated as RoHS Compliant, to comply with EU Directive 2011/65/EU (effective July 21, 2011) and the amended Directive (EU) 2015/863 (effective July 22, 2019) for Restriction of the Use of Hazardous Substances (RoHS).

To the best of Frecom's knowledge, Frecom's products that are declared as RoHS Compliant, that

- Do not contain restricted substances above the maximum threshold values shown in Table 1, or
- Where applicable, may be subject to one of the RoHS Annex III exemptions for lead (Pb) and Cadmium(Cd) as shown in Table 2. (For externally purchased components, other RoHS exemptions may apply).

Table 1:

Substance	Threshold	EU RoHS Directive
Cadmium (Cd)	0.01% (100ppm)	2002/95/EC amended 2011/65/EU
Lead (Pb)	0.1% (1000ppm)	2002/95/EC amended 2011/65/EU
Mercury (Hg)	0.1% (1000ppm)	2002/95/EC amended 2011/65/EU
Hexavalent Chromium (Cr_6)	0.1% (1000ppm)	2002/95/EC amended 2011/65/EU
Polybrominated biphenyls (PBBs)	0.1% (1000ppm)	2002/95/EC amended 2011/65/EU
Polybrominated diphenylethers (PBDEs)	0.1% (1000ppm)	2002/95/EC amended 2011/65/EU
Bis(2-ethylhexyl) phthalate (DEHP)	0.1% (1000ppm)	EU 2015/863, enforced 22 Jul 2019
Butyl benzyl phthalate (BBP)	0.1% (1000ppm)	EU 2015/863, enforced 22 Jul 2019
Dibutyl phthalate (DBP)	0.1% (1000ppm)	EU 2015/863, enforced 22 Jul 2019
Diisobutyl phthalate (DIBP)	0.1% (1000ppm)	EU 2015/863, enforced 22 Jul 2019

Table 2:

EU RoHS Exemption	Description	Remarks
6(a)	Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0.35 % lead by weight	1)
6(a)-I	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	2)
6(b)	Lead as an alloying element in aluminium containing up to 0.4 % lead by weight	1)
6(b)-I	Lead as an alloying element in aluminium containing up to 0.4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling	2)
6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0.4 % by weight	2)
6(c)	Copper alloy containing up to 4 % lead by weight	3)
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	3)
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	3)
7(c)-IV	Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors	4)
8(b)	Cadmium and its compounds in electrical contacts	5)
8(b)-I	Cadmium and its compounds in electrical contacts used in: - circuit breakers, - thermal sensing controls, - thermal motor protectors (excluding hermetic thermal motor protectors), - AC switches rated at: 6 A and more at 250 V AC and more, or 12 A and more at 125 V AC and more, - DC switches rated at 20 A and more at 18 V DC and more, and - switches for use at voltage supply frequency ≥ 200 Hz.	2)
15	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages	5)
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: - A semiconductor technology node of 90 nm or larger; - A single die of 300 mm_2 or larger in any semiconductor node; - Stacked die packages with die of 300 mm_2 or larger, or silico interposers of 300 mm_2 or larger	2)
34	Lead in cermet-based trimmer potentiometer elements	3)

Notes for table 2:

I. Categories of EEE covered by RoHS Directive:

1. Large household appliances.
2. Small household appliances.
3. IT and telecommunications equipment.
4. Consumer equipment.
5. Lighting equipment.
6. Electrical and electronic tools.
7. Toys, leisure and sports equipment.
8. Medical devices.
9. Monitoring and control instruments including industrial monitoring and control instruments.
10. Automatic dispensers.
11. Other EEE not covered by any of the categories above.

II. Make clear remarks:

1) Cat. 1-7 and 10: June 30, 2019 (already expired), cat. 8 and 9: pending, cat. 11: July 21, 2024
2) Cat. 1-7 and 10: pending
3) Cat. 1-10: pending, cat. 11: July 21, 2024
4) Cat. 1-7, 8 other than *in vitro*, 9 other than industrial and 10: July 21, 2021, cat. 8 *in vitro*: July 21, 2023, cat. 9 industrial and 11: July 21, 2024
5) Cat. 1-7 and 10: February 29, 2020 (already expired), cat. 8 and 9: pending, cat. 11: July 21, 2024

Our point of contact for RoHS is:

Dongguan Frecom holdings Co., Ltd.
A6 Building, 2025 Science and Technology Park of Silicon Valley Power, Dongcheng District, Dongguan City, Guangdong Province, China.
Tel: +86 (0769) 2316 0059, Email: rohs@frecom.com.cn

Signature:

Title: General Manager

Date: 2020/9/24