

To: KEMET



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Regarding the Article 33(1) of REACH Regulation

Article 33(1) of the REACH Regulation states that manufacturers and importers of articles (products) are required to notify their customers of the presence of any Substances of Very High Concern (SVHC) in their products exceeding 0.1% by weight and provide instructions on safe use of the product. TOKIN Corporation reports regarding the Article 33(1) of REACH Regulation as follows;

1. Applicable Product: AE0203D04DF, AE0203D04F, AE0203D08F, AE0203D16DF, AE0505D08F, AE0505D16F, (Multilayer piezoelectric actuators, AE series)
2. Report for content of REACH SVHC list: The product above contains substance below that is listed on the 8th update of the REACH SVHC 54 substances (December 19, 2012) by more than 0.1wt% per product weight.

	Substance	EC No.	CAS No.
19	Lead titanium zirconium oxide (PZT)	235-727-4	12626-81-2

3. Regarding safety of the piezoceramics products:
Ceramic element "Piezoceramics" that is used in this product becomes ceramics by firing powder that contains PZT as a main ingredient.
It is chemically stable as state of ceramics, and risks towards to human body or environment are very minimum within the safe intended use of the product.
Please note that risks could occur in case of inhalation or accidental oral uptake of powder ceramics etc. that is a result of inadequate use of the product(for example alteration, cutting, polishing of the product etc.).
4. Technical product information on the piezoceramics products:
Manufacturing technique of the "piezoceramics products" whose main ingredient is Lead titanium zirconium oxide(PZT) has been very much established, and there is no alternative material that can exhibit superior performance than PZT at this moment.
Please note that the piezoceramics is listed as an exempt on RoHS (2011/65/EU) AnnexIII(7c.1).

RoHS Exemption List (Annex)	
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronics devices, or in a glass or ceramic matrix compound.

5. Responsibility of piezoceramics manufactures:
Piezoceramics manufactures report information regarding PZT containment in their products to the customers in order to obey the article 33 of the REACH regulation.

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