

Joint Position of Associations inside the Electrical Industry's Value Chain

View about SVHC* in Ceramics concerning the EU-REACH Regulation
= Including the Handling of the Lead Oxides and Complex Oxides Containing Lead
Added in the 8th Revision of the SVHC Candidate List =

Lead oxides and Complex Oxides containing Lead, which are well known as constituents of ceramics, were added in the 8th Revision of the SVHC Candidate List of the EU REACH Regulation ((EC) No 1907/2006) (published on 19 December, 2012).

We present below the view of the Electronic Components Industry concerning the notification and information transmission duties based on the REACH Regulation for those constituents when included in ceramic materials (hereinafter “ceramics”).

1. View of the Electronic Components Industry concerning SVHCs

The Electronic Components Industry understands and cooperates with the EU standpoint aiming at the management and transmission of substance risk information. It shall be noted that, in the REACH Regulation, substances called SVHC are specified as candidate substances for “authorization” based on Article 59 (1), and are not regarded as banned substances.

The REACH Regulation establishes requirements on notification of SVHCs to ECHA (European Chemicals Agency) in accordance with Article 7 (2) et seqq. and information transmission of SVHCs to downstream users and consumers in accordance with Article 33, for articles imported or manufactured within the area of the EU Member States.

However, in the case of ceramics, with a complex structure and composition including multiple constituents, a particular SVHC used as constituent can become a part of the ceramic matrix. In this case to determine whether it is still correspondent to an SVHC or becoming part of a new compound due to chemical and physical reactions, standardized judgment criteria are necessary (see 3.1 and 3.2).

2. View Concerning Ceramics in Electronic Components

In the REACH Regulation, according to EU Official Journal “Commission Regulation (EC) No. 987/2008”, ceramics is one substance and not a mixture of several substances.

Today it is common to communicate information on ceramics composition (e.g. within the International Material Data System of the automotive industry) in a more easy way apart from its real chemical structure as a list of constituent metallic oxides. This information does not imply that the listed oxides themselves exist as constituents of the ceramics.

* SVHC Substance of Very high Concern

3. View Concerning Lead Oxides and Complex Oxides Containing Lead Added in the 8th Revision of the SVHC Candidate List

Based on the judgment criteria shown by the view concerning ceramics in general from the previous item, we present our view concerning the handling of notification and information transmission based on the REACH Regulation for lead oxides and complex oxides containing lead.

3.1. Handling of Lead Oxides (PbO, Pb₃O₄) Noted as Constituents of Ceramics

Chemical characteristics including risk to environment and human beings of lead oxides (PbO, Pb₃O₄) as substances as such are not comparable in properties when finally integrated into the ceramic matrix. This ceramic matrix is not a Substance of Very High Concern (SVHC). Manufacturers/importers are not obliged to communicate information on the substances mentioned above according to Article 33 (1) and in accordance to Art. 7 (2) et seqq. of the REACH Regulation.

3.2. Handling of Complex Oxides Containing Lead (Lead titanium trioxide, Lead titanium zirconium oxide)

Ceramics containing Lead titanium trioxide (PbTiO₃) at a concentration range of 99.5% to 100% or Lead titanium zirconium oxide ((Pb_x Ti_y Zr_z)O₃) at a concentration range of 80% to 98% forming a ceramic matrix will not be chemically modified if other constituents are not present during the manufacturing process of the ceramics. In this case manufacturers/importers are obliged to communicate information on these substances mentioned above according to Article 33 (1) and in accordance to Art. 7 (2) et seqq. of the REACH Regulation.

In cases when, in addition to lead, titanium and zirconium, other metallic oxides are introduced into the main structure, a substance different from Lead titanium trioxide or Lead titanium zirconium oxide is formed. In this case manufacturers/importers are not obliged to communicate information on these substances mentioned above according to Article 33 (1) and in accordance to Art. 7 (2) et seqq. of the REACH Regulation.

Japan Electronics Information and Technology Industries Association

Technical Committee

Subcommittee on Electronic Components

Subcommittee on Electronic Components Environmental Technology

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