Application for exemption from EU REACH PFAS control of fluoropolymer products for insulation

Topic: Application for permanent exemption of fluoropolymer products for insulation

Reasons: Fluoropolymer products for insulation (PTFE, PFA, FEP, PVDF, ECTFE, etc.) are widely used in the field of insulation because of their excellent properties, and non-fluoropolymer materials or other materials cannot be replaced.

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Fluoropolymer products for insulation include: the insulation layer of wire and cable, insulation film, insulation coating, wire and cable connectors, insulators etc, which are all made of fluoropolymer.

Application of fluoropolymer products for insulation:
Because of its special properties such as high and low temperature resistance (between -100℃ and 250℃), UV resistance, excellent flame retardant characteristics (oxygen index ≥95%), corrosion resistance (PH 0~14), high dielectric constant, high volume resistance and so on. Fluoropolymer insulation products are widely used in wire and cable, communication electronics, aerospace, high-rise buildings, automobiles and other applications requiring the use and transmission of power and electrical signals insulation protection. Its use scenarios are extremely special and harsh with extremely high security requirements. No other material can replace it in terms of overall performance;

Since humans entered the era of electrification, humans have been looking for materials with excellent comprehensive performance to be applied in the field of insulation, especially in some high safety risks and harsh working conditions. It is obvious that fluoropolymer is the best solution at present. If fluoropolymer insulation products are banned, it will greatly increase the safety risk. In addition, the service life of other materials cannot be compared with it. The cost of frequent replacement process will increase, while the production and replacement of these products with other material resulting in greenhouse gas emissions.

For the above reasons, it should be exempted and allowed to produce and use.

References:

1. Barbara J Henry and etc. A Critical Review of the Application of Polymer of Low Concern and

Regulatory Criteria to Fluoropolymers, Integrated Environment Assessment and Management-Volume 14, Number 3-pp. 316-334