
Calendar Year 2010

To: Essex Group, Inc. Magnet Wire / Winding Wire Customers

From: Essex Group, Inc. Engineering Department

Re: Request for Certification of Compliance with EU-RoHS, WEEE, REACH, etc

Essex Group, Inc. is in receipt of inquiries about substances in Essex finished magnet wire against European Union directives on Restrictions on Hazardous Substances (RoHS), Waste Electrical and Electronic Equipment (WEEE), and Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH). Nothing about Essex finished magnet wire* could be construed as contrary to EU's goals for RoHS, WEEE, or REACH.

Specific to RoHS: Based on our internal review of raw material inputs, Essex certifies that our finished magnet wire is substantially free from lead, mercury, cadmium, hexavalent chromium, and polybrominated flame retardants.

Specific to WEEE and ELV: Essex finished magnet wire will not interfere with the collection, treatment, recycling, and recovery of waste electrical and electronic equipment, nor will Essex magnet wire interfere with management of end-of-life vehicles (ELV). Magnet wire is based on copper or aluminum conductor, two metals of intrinsic value. Therefore, developed nations should already be well equipped for managing the reclamation of scrap magnet wire.

Specific to REACH SVHCs and Annex XVII: Essex reviewed the REACH list of Substances of Very High Concern (SVHCs) as well as the designated substances in REACH Annex XVII and their corresponding conditions of restriction, all against raw material input for Essex finished magnet wire. Ultimately, our review found nothing contrary about Essex magnet wire vs REACH SVHCs and/or Annex XVII.

As a specific example of the outcome of the aforementioned review re: Annex XVII, Essex is aware of no quantifiable presence of carcinogens, mutagens, nor reproductive toxins in Essex finished magnet wire. There is some history of light use of azo colorants in some magnet wire enamels. However, Essex notes that interest in azo dyes in REACH Annex XVII is directed at textiles and like products, for which direct skin contact might be expected, and this is not the case for magnet wire.

Specific to EU Action on PFOS & PFOA: Essex standard finished magnet wire (cured enamel film applied as a solution over base copper or aluminum metal) contains no perfluorooctane sulfonate (PFOS) nor its variations, and no perfluorooctanoic acid (PFOA). Note that at least one tape-wrapped Essex magnet wire product (polyimide) contains polyfluorinated organics in its film wrapping, and one polyimide tape supplier acknowledges that there may be unquantifiable traces of PFOA among these polyfluorinated organics.



Specific to Halogens: Essex standard finished magnet wire (cured enamel film applied as a solution over base copper or aluminum) is substantially halogen-free. Note that halogens may indeed be present in some Essex fabric-wrapped magnet wire products (see text immediately above re: polyfluorinated organics in polyimide tape).

Specific to Dimethyl Fumarate: Essex is aware of no dimethyl fumarate in Essex finished magnet wire.

*also referred to as *winding wire*