May 8th, 2023

HALOGEN FREE

Products: All Passive RFID Inlays & Tags, excluding Hard Tags

Background

Concerns over the use of Brominated Flame Retardants (BFRs) have increased interest in halogen-free electronics. However, BFRs are not the only source of halogens in the electronics industry: epoxy resins contain measurable levels of chlorine. Most printed circuit board (PCB) resins are epoxies, so the laminating adhesives in RFID inlay, tag antenna materials and conductive pastes used in integrated circuit assembly are normally epoxy-based. It is important to realize that even without the use of BFRs, there may be finite levels of halogens present as impurities in electronic products.
Halogens are chemical elements which, during combustion, can spread extremely harmful fumes, attack building components and computer hardware, and cause casualties by emitting toxic gases.

Halogen-free definition

The International Electrochemical Commission's (IEC) Definition of Halogen-Free, IEC 61249-2 21, is:
900 ppm maximum chlorine
900 ppm maximum bromine
1500 ppm maximum total halogens (chlorine + bromine)

Halogen-free Avery Dennison Smartrac products

As a responsible company, Avery Dennison Smartrac is dedicated to producing more environmentally friendly products. The use of halogen-free materials enhances the overall fire safety of electrical installations and prevents the release of dangerous and toxic fumes during combustion in waste-burning plants. For these reasons, all inlay raw materials used at Avery Dennison Smartrac are halogen-free.

Avery Dennison Smartrac's logo for halogen-free products can be found on product data sheets.