

Alternate Choice

Pinfa Represents Makers of Substitutes for Brominated Flame Retardants

Hot Topic – Flame retardants are nowadays rarely out of the news. The European Parliament is currently discussing their future in electronic equipment, and brand name companies such as Apple, Dell and Nokia are increasingly joined by other companies taking positions on brominated flame retardants and halogen content.

While bromine was traditionally the cheapest and therefore favored technology for some applications, alternatives to bromine have existed for many years. As regulators and marketing managers are now reconsidering their options, the manufacturers of the alternative flame retardants have formed a new association to provide information to decision-makers, NGOs and interested organizations.

The association is pinfa, the Phosphorus, Inorganic and Nitrogen Flame

Retardants Association. The name indicates the three major technologies of non-halogenated flame retardants. Pinfa was established as a sector group within Cefic in 2009.

A Sunrise Industry

As others in the industry battle against the growing tide of concerns, claims are made that brominated flame retardants cannot be replaced. While this is clearly untrue,

pinfa has set itself up from the beginning not to engage in such lobbying battles but rather to provide the information on alternatives and to let others decide. When considering their options, users of flame retardants rightly consider functionality, cost and health and safety. We are setting up www.pinfa.eu as a portal to provide information on these criteria.

From a health and safety point of view, users don't wish to move from one set of concerns to another, so over the last 10 years a number of governments in Europe, and the U.S. and Canada, have undertaken or commissioned studies into halogen-free flame retardants. This work has provided in effect a list of flame retardants politically cleared for use. Alternatives have also been scrutinised by environment groups who are sufficiently comfortable with the range of options to urge the supply chain to move to halogen-free alternatives. This work is being backed up by ongoing studies and registration under Reach, which is progressing well. Learning the lessons of the past, pinfa members see that their commercial interests are best served by adopting a "green chemistry" approach, and we are seeing the benefit.

With regard to functionality, alternatives do the same job as brominated flame retardants. They have to – fire safety standards are a pass-fail test. Mem-

pinfa

pinfa was originally established by six companies but now numbers 11 members with others likely to join. Interest continues to grow, demonstrating that there was a need to organize the interests of non-halogenated FR manufacturers into such a group, and that companies are increasingly offering a wide range of non-halogenated solutions. The full list of members is shown on our website at www.pinfa.eu. For more information, contact Brigitte Dero at bde@cefic.be.

bers of pinfa have worked with customers to ensure that other functionalities are maintained as they switch. In some cases, users look not only at the flame retardant (FR) technology, but the FR and the polymer material in combination to select the correct balance of performance, cost, environmental safety and protection to their brands. On the pinfa website, we are developing a product selector, which helps FR users and others to understand the range of options for different applications with information on their technical and environmental profiles – www.pinfa.eu/product-selector.

The issue of cost is important. Halogen-free flame retardants are currently more expensive, but we are already seeing these prices come down as volumes increase. We are seeing a typical technology shift: at the beginning it is claimed the existing technology cannot be replaced; then technical issues are worked through; then the price differential between old and new reduces towards zero as the volumes shift. This marketplace is no different. The clearest signal that the shift can be made is that in many companies, the shift has been made.

Helping the Cause of Fire Safety

Another factor in establishing pinfa was to input into fire safety discussions in Europe. Fire safety standards are important for flame retardant producers commercially but are also a key public safety issue. It is generally recognized that a number of fire safety standards in Europe may not be as high as they should be, particularly when one moves from public spaces to domestic fire safety, people's homes.

The public discussions concerning brominated flame retardants were often used as a strong argument by those wishing to see no tightening of the law. Pinfa members who were previously members of EFRA (European Flame Retardants Association) found it difficult to provide regulators with credible information on halogen-free FRs because the role of EFRA was to promote all FRs. Politicians have been uncomfortable to advocate the use of FRs because the industry was defending the lowest common denominator and was therefore not credible on the halogen-free alternatives. The hope of pinfa is now that

by concentrating on FRs that are acceptable to environment groups, this may help to unblock several important debates on fire safety. An early example may be to input into the European Commission's current work to improve the fire safety of upholstered furniture and the "forgotten" standards of EN 1021.

pinfa also hopes that we can contribute to improve the reputation of flame retardants as a class, that decision-makers will see that these are a wide range of products which only have in common a function, in most cases with no connection to the concerns over the properties of a few.

The Future for pinfa: Playing a Role for Environment and Fire Safety

pinfa is already cooperating with a range of other organizations. pinfa has agreed mutual membership with iNEMI, the International Electronics Manufacturing Initiative, in order to best provide value to the electronics sector on new generation flame retardants. pinfa is also looking beyond Europe – the organization was established with a global remit and is in discussion with potential new members in Asia and North America.

Looking forward beyond the current debates, pinfa members are confident of the future. Commercially, they look to a market which will reward products which deliver the highest protection for health and the environment. They look to an increased market because fire safety in Europe should improve, and this will be an increased public benefit. They hope that flame retardants as a function are able to be seen as a force for good. And the aim of pinfa is to achieve this working with others in a transparent way, leading to decisions which provide Europeans with a strong manufacturing industry, highest protection for health and environment, and the highest protection from the risk of fire.

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