Newsletter
National Service of Assistance
BPA SUBSTITUTION

INERIS
controlling risks
for sustainable development

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Editorial

Europe has seen a flurry of new regulations in recent months concerning bisphenol-A, the latest development being the launch, by Segolene Royal, of the National Strategy on Endocrine Disruptors (*Stratégie Nationale sur les Perturbateurs Endocriniens* or SNPE) and the decision to eliminate this substance as soon as possible in thermal papers (typically, invoice slips and receipts). In this dynamic, plans are being drawn to create in the coming weeks a label entitled "BPA-free receipt" (See "News" Section).

This is why our site, the National Service of Assistance to the substitution of bisphenol-A (BPA-SNA), so far focused on food containers, will evolve towards other areas of BPA uses, and, firstly, towards thermal papers.

In parallel, our newsletter follows the same trend: starting with this new number, and in the next ones, we will offer information on alternatives to BPA in various economic sectors.

In addition, an increased number of publications warn of the hazards that other molecules of the bisphenol family could represent. We already note on this website uncertainties about the risks of alternatives to BPA based on another family member. In the coming months, we will also begin to provide information on uses and substitutes for these other bisphenols in various application areas.

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BPA news

NEWS ON REGULATION

Towards a new classification for bisphenol-A

At the initiative of France, ANSES filed in 2012 with the European Chemicals Agency a proposal for review within the framework of the CLP ("Classification, Labeling and Packaging") Regulations.

On March 19, 2014, the Risk Assessment Committee (RAC) of ECHA expressed its support for a stricter classification of bisphenol-A by proposing an amendment to the category of "suspected reproductive toxicant" to "toxic for reproduction."

As of this date, ECHA has 18 months to submit its opinion to the European Commission, which will decide whether or not to change the classification of bisphenol-A in the CLP regulation.

Source :
http://echa.europa.eu/fr/harmonised-classification-and-labelling-previous-consultations/-/substance/179/search/+/del/20/col/COMMENTSDEADLINEHCL/type/desc/pre/2/view

France filed a restriction dossier with ECHA for bisphenol-A in thermal paper.

On 01/17/2014, the restriction dossier called "Annex XV", prepared by ANSES in collaboration with INERIS, was filed with the European Chemicals Agency by the French Ministry of Ecology, Sustainable Development and Energy (MEDDE).

As a first step, an assessment of the admissibility of the dossier will be undertaken. If the dossier is considered admissible, the ECHA Committees will review it and give their opinions in 2015 (several public consultations will be held during this phase). The opinion of ECHA will then be submitted to the European Commission which will decide whether to adopt the restriction, modifying or not its scope and conditions.

Source :
http://echa.europa.eu/fr/registry-of-submitted-restriction-proposal-intentions/-/substance/179/search/+/term

Development of a "BPA-free" label for thermal papers

Without waiting for the outcome of the European action for the removal of BPA in thermal paper, Segolene Royal, Minister for Ecology, Sustainable Development and Energy, announced on April 29, during the presentation of the national strategy against endocrine disruptors, the next creation by INERIS of a "BPA-free receipt" label.

In addition, the Minister informed of her intention to encourage distribution companies as well as banks to replace BPA in their receipts.

Source :
http://www.developpement-durable.gouv.fr/IMG/pdf/2014-04-29_Note_presse_strategie_perturbateurs_endocriniens.pdf

NEWS ON BPA SUBSTITUTION

TSC-M™ copolymer, a substitute for polycarbonate in food contact applications.

The Hong Kong CVI Modern Technology Development Ltd. Company has developed a copolymer without bisphenol-A produced from butadiene and styrene monomers. It has, according to its manufacturer, the advantage of being both less expensive (USD3.6 to 3.7/kg) and lighter (about 16%) than conventional polycarbonate resins. However, its resistance to impact and high temperatures is lower.

According to the manufacturer, this product meets the requirements of the FDA and the European Union for food contact applications. The TSC-M™ copolymer is currently used for the manufacture of food containers (milk bottles, sports water bottles, etc.), toys (caps for soap bubbles tubes, car hoods, etc.), and parts for refrigerators.

Source : http://www.hkpolymer.com/eng/

Duroftal resins for cans.

The Allnex (formerly Cytec) Company produces and markets two BPA-free resins suitable to substitute the epoxy resins used for coatings of cans.

These are the DUROFTAL PE 6160/50MPAC and DUROFTAL VPE 6104/60MPAC resins.

Both resins are BPA-free, but also without BADGE (Bisphenol-A DiGlycidyl Ether).

Both resins are compatible with the standards of the U.S. FDA and the European Union for materials in contact with food.

The DUROFTAL PE 6160/50MPAC resin is a saturated polyester which, according to its manufacturer, presents excellent flexibility, easy pressing, a high resistance to autoclave treatment (this resin does not require neopentyl glycol to improve its resistance to heat), and good compatibility with phenolic resins. The DUROFTAL PE 6160/50MPAC resin is used for white and transparent internal and external coatings of cans.

As for the DUROFTAL VPE 6104/60MPAC resin, it is a hydroxylated polyester whose technical performance, according to its manufacturer, are well balanced: good chemical resistance, but also good resistance to corrosion, moisture, yellowing, and shock. In addition, this resin is compatible with acrylic resins.

The manufacturer does not specify whether this coating is suitable for acidic foods, for which the substitution of BPA is more problematic.

Source : http://www.allnex.com/brochures/259

Food contact: Eastman Tritan™, an alternative to polycarbonate.

This BPA-free co-polyester is proposed by Eastman for all kinds of applications in food contact: containers for small appliances (e.g., blenders, mixers, etc.), sports water bottles, baby tumblers, water fountain tanks, etc.

The Eastman Tritan™ is produced from three monomers: dimethyl terephthalate (DMT), cyclohexane dimethanol (CHDM) and tetramethylcyclobutanediol (TMCD).

This resin is approved for food contact by, in particular, the FDA, the European Union, the Canadian and Chinese Ministries of Health and the ***Japan Hygienic Olefin and Styrene Plastics Association***. In addition, control tests of estrogenic and androgenic effects conducted on this product proved to be negative.

Compared with polycarbonate, the Eastman Tritan™ would present, according to its manufacturer, greater hardness, better chemical resistance and a more stable color after sterilization and radiation treatments. However, its ductility (property of a material to be deformed without breaking) is below that of polycarbonate.

Source :
http://www.eastman.com/Brands/Eastman_Tritan/Pages/Overview.aspx

Events

GLOBAL FOOD CONTACT 2014. May 2014. USA.
http://www.food-contact.com/global-food-contact-2014-program.aspx

BIOBASED WORD ASIA 2014. May 2014. Singapore.
http://www.cmtevents.com/aboutevent.aspx?ev=14051718

Publications

The EPA (Environmental Protection Agency) published in January 2014 the "BISPHENOL A ALTERNATIVES IN THERMAL PAPER" Report.

This report provides information on bisphenol-A, its use in the manufacture of thermal paper and possible alternatives to such use. Based on interviews with technical experts, including stakeholders, EPA has identified nineteen substitutes to bisphenol-A. In addition to information on the potential hazards of BPA and its possible substitutes, information on technical and economic compromises associated with each option is presented.

Source :
http://www.epa.gov/dfe/pubs/projects/bpa/aa-for-bpa-full-version.pdf