IssueSheet

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Biosafepaper Project

Testing the safety of paper and board for food contact

The project

The "Biosafepaper" Project closed at the end of 2005. It was a four-year, joint EU Paper Industry and Commission shared-cost project (Contract N° QLK1-2001-00930) within the EU Fifth Framework R&D Programme. It succeeded in developing biological tests that will improve the safety assessment of paper packaging used for food products. The research team, directed by Dr. Assi Weber from the University of Kuopio (Finland), included a multi-discipline team of scientists from leading research institutes across Europe. Sixteen paper and board companies were partners.

Project objectives

The major aim of the project was the development of a short-term test battery for assessing the safety of paper and board intended for contact with food, in order to enable a robust risk evaluation scheme. In vitro toxicity tests, established in other spheres of human health, formed the starting point. The project was carried out at a pre-normative level in order to adapt these tests to give meaningful result on material extracted from paper and board samples.

Main results

The research project produced three tangible results:

- A standard operational procedure for extraction protocols.
- A decision-tree based approach to safety evaluation.
- A new scientifically-sound recommendation for harmonised risk assessment with the introduction of correction factors (calibration of results according to actual food application).

Position of the paper industry

EU safety compliance, for many food packaging materials, is established by making toxicological assessments of chemical raw materials and then relating the results to human intake by a series of chemical tests and theoretical calculations. Paper and board, in contrast to most of these materials, is manufactured mainly from natural raw materials and, therefore, has a slightly variable composition. By seeking to measure the risk of the final product (not the raw materials) under actual food use conditions, it is believed that Biosafepaper adds a new, relevant compliance tool that could be used within eventual EU legislation. The suggested methodology is in line with the EU Commission's objective of developing simpler, more effective and reliable risk management approaches. Such an outcome will enable paper and board producers to promote their products to consumers and legislators on the basis of sound, transparent, scientific criteria.

Future steps

It is accepted that work is needed to convert the pre-normative findings into a practical risk management scheme and CEPI is currently running a number of projects intended to do this. Subjects include refining the test battery, publishing the original scientific data and converting the tests to European Standards. As completion approaches, the concept will be publicised to legislators and consumer groups with the aim of establishing it as an effective risk management tool. In order to gain some operational experience, elements of the project's results are being included in the draft Industry Guideline (see separate Issue Sheet) as an optional, additional test of safety.

Additional information

- Project website: http://www.uku.fi/biosafepaper/
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