NON INTENTIONALLY AND INTENTIONALLY ADDED SUBSTANCES SCREENING TESTS IN FOOD CONTACT MATERIALS

<u>Kyriaki Xanthidou</u> και Panagiota Drillia ¹Tsakalidis Analysis & Testing, Tsamadou 12, 18531 Pireaus e-mail: lab1@tsakalidislabs.gr

Abstract

Foods, before their final consumption, come into contact with many materials and objects during their production, processing, storage, preparation and supply, which are called "food contact materials" and may be made of plastic, metal, paper or glass with or without the addition of other materials, e.g. adhesives, inks, coatings, in order to protect and / or improve the appearance of packaging materials. More specifically, in the production of materials and objects in contact with food, intentionally added substances (IAS) are used, which help to improve the properties of the material. However, in addition to these substances that are intentionally added, food contact materials also contain NIAS (Non Intentionally Added Substances), such as impurities and contaminants in raw materials, as well as by-products in the production process. Materials can transfer their components (IAS and NIAS) to food through the migration phenomenon, with the potential for high exposure to certain substances, which may be harmful to human health. Tsakalidis Analysis & Testing, with a team of specialized and experienced scientists, supported by the appropriate modern equipment, has developed methods of non-targeted screening tests in order to check the migration of both IAS and especially NIAS. A private library has been set up for NIAS with spectra of identified substances and at the same time the risk of exposure to them is being assessed and evaluated. This paper presents a mapping of packaging materials related to the identification and risk assessment of IAS and NIAS that have been analyzed in the last decade in Tsakalidis Analysis & Testing laboratories.

Keywords: NIAS, IAS, migration, food contact materials

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