Food safety is defined as “the absence of adverse health effects due to food contamination”. Contaminants are substances that have not been intentionally added to food. These substances may be present in food as a result of the various stages of its production, packaging, transport or holding. They also might result from environmental contamination. Since contamination generally has a negative impact on the quality of food and may imply a risk to human health, it is important to have quick and reliable extraction process.

The Thermo Scientific™ Dionex™ ASE™ 150 and 350 Accelerated Solvent Extractor systems use a combination of elevated temperature and pressure with common solvents to increase the efficiency of the extraction process. The proven accelerated solvent extraction technique is dramatically faster than Soxhlet, sonication, and other extraction methods, and required significant less solvent and labor. With the Dionex ASE 350 Accelerated Solvent Extractor system, extractions are typically performed in 12–20 min, while other techniques can take up to 48 hours, in addition to saving 50–90% in solvent consumption.

Sample preparation is a critical link to the overall analytical process. It often requires many steps and multiple hours to prepare samples for chromatography. The ability to integrate pretreatment, solvent extraction, post-extraction cleanup and concentration are critical for total productivity. Integration of these steps improves overall productivity, reduces sample handling, and minimized pretreatment times.

In an effort to offer a completely automated analytical workflow, the Thermo Scientific™ Rocket Evaporator can be added optional to the Dionex ASE system. This centrifugal evaporator can concentrate a large range of extract volumes from a Dionex ASE 150/350 system directly into autosampler vials.

Benefits:
• Extractions for sample sizes 1–100 g in minutes
• Selective removal of interferences during the extraction (in-cell clean-up)
• Dramatic solvent reduction
• Wide range of applications
• Handles acidic and alkaline matrices
• Approved for use by the U.S. EPA and CLP Program

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Dionex ASE Accelerated Solvent Extractor system methods can be applied to many industries:

Foods
• Contaminants
• Natural products
• Pesticides and herbicides in food
• Pesticide residues
• Fat and lipid determination after acid or base pre-treatment
• Herbal and dietary supplements

PCBs
• Dioxins and furans
• Total Petroleum Hydrocarbons (TPH)
• Explosives
• Air sampling cartridges (XAD and PUFs)
• Polybrominated flame retardants

Accelerated solvent extraction methods meets all of the requirements for extraction under U.S. EPA SW-846 Method 6860 Method 3545A for Pressurized Fluid Extraction, and is accepted under CLP SOW OLMO4.2.

Pharmaceutical and Natural Products
• Active ingredients
• Oils and organic acids
• Vitamins and antibiotics
• Detergents
• Drug delivery devices and packaging

Polymers Using ASTM Method D7210
• Xylene solubles
• Polymer additives

Consumer Products
• Paper and pulp
• Bio fuels

Textiles and fibers
More information on this product:

Product:
Thermo Scientific™ Dionex™
ASE™ 150 or 350 Accelerated Solvent Extractor systems

www.analytica-world.com/en/contact/products/127465/