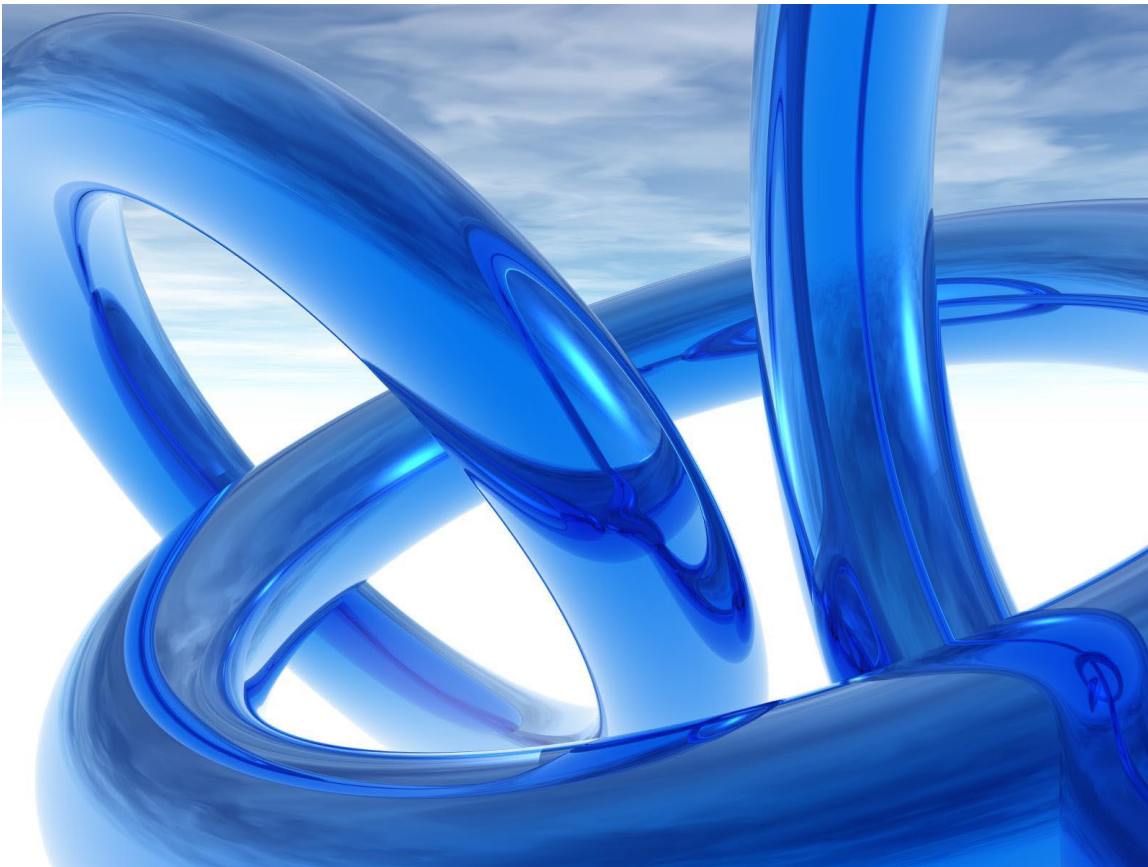

SecurTrace™



SecurTrace™ product line of tracers and taggants masterbatches and technology add distinct security signatures to packaging components.

Summary

SecurTrace™ product line of tracers and taggants masterbatches and technology add distinct security signatures to packaging components used by consumer package goods companies in response to the growing call for traceability in food, beverage, drug and cosmetic packaging,. These products allow flexible and rigid plastic packaging to be evaluated at points in the supply chain to help resolve security, counterfeiting, liability and other issues, even at the retail store level.



Benefits

Previously used primarily with pharmaceuticals, medical devices, currency, agricultural products and explosives, taggants and tracers are now being used more frequently for a variety of consumer and industrial products to verify brand ownership, manufacturers' lots and tamper evidence. Ampacet works with manufacturers to tailor **SecurTrace™** signatures to their packaging needs. The company also provides analytical services to positively identify ownership in a package at the store or plant level, if needed. Depending on the complexity of security required, **SecurTrace™** product line of tracers and taggants technologies provide low cost options to high security optimization.

Risk Management

Studies have shown that about seven percent of all products sold are counterfeit, resulting in revenue losses of \$200 billion in the U.S. alone. The global market and the advances in printing and packaging technology mean that risks to a company's brand abound. Each year, the U.S. Department of Homeland Security publishes a report of seizures of counterfeit goods arriving from abroad from countries like China, India and the Far East. These fake goods pose threats to American consumers' health and safety as well as America's economic vitality and national security. Among the counterfeit items seized are pharmaceuticals and medical devices which represent 2,000 seizures and tens of millions of dollars in value. Of course, this number only represents those items that were actually seized and not the vastly larger number that went through undetected. Until recently, most consumers thought that product counterfeiting only occurs with high-end products like fragrances and cosmetics. In reality, any consumer product is subject to counterfeiting. The counterfeiting of drugs and medical devices is being referred to as the "crime of the 21st Century that poses adverse risks to consumers and corporation alike". The World Health Organization estimates that 30% of pharmaceuticals sold into developing countries are counterfeit.



Design

SecurTrace™ technology varies the type, proportion and concentration of special compounds in Ampacet masterbatches to create fingerprints that are readily measured by visual, audible or standard laboratory analytical tools. The technology can be applied to both rigid and flexible plastic packaging made by blow and injection molding, extrusion and other processing methods. These products come in a variety of functionalities:

- **COVERT** additives don't change the appearance or functionality of the part but are designed to be detectable with the use of special devices. Covert additives essentially fall into two categories, those that require a lab analysis to detect its presence and those that can be authenticated in the field. Covert detection generally requires a binary system of a detectable additive like a taggant and means of detecting the additive.
- **OVERT** additives allow for the creation of very observable yet permanent and tamper-resistant marking on the package. Overt anti-counterfeiting strategies utilizes ways to mark parts in a manner that this very difficult to reproduce or alter. A permanent, unalterable mark can be burned into the part using a laser. The plastics used in many devices need to be modified with additives to allow for laser etching.
- **Combinations of COVERT and OVERT** strategies make it more difficult for counterfeiters to duplicate a product.



There are new plastics additives in the marketplace to assist designers in strengthening a product-maker's anti-counterfeiting capabilities. Manufacturers can apply **SecurTrace™** technology alone or as part of a multi-level traceability system in conjunction with bar codes, digital tags, product taggants and other elements. It can be used for many traceability and authentication purposes. In addition to detecting counterfeit products, in litigation, it can help identify the source of ingredients in a package. It also can aid quality by validating that a package contains the right Ampacet colorants or additives at the level specified.

For more information on **SecurTrace**, its uses and complete Regulatory Status, contact your Ampacet Account Executive or visit www.ampacet.com.

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