

Authentication

The process of establishing or proving a product genuine.

Adulteration

To make an authentic product impure by mixing in a foreign or inferior product. e.g. the addition of cheap solvents to gasoline.

Brand abuse / piracy

Term used to describe various fraudulent activities including counterfeiting, diversion and adulteration.

Brand Compromise

The term used to describe the effect on a brand's reputation when a consumer purchases a counterfeit or adulterated product believing it to be genuine.

Counterfeiting

The act of passing off fake products as authentic by the intentional copying of trademarks, packaging and content.

Covert

Invisible, secret, disguised.

Diversion

The unauthorized movement of goods from their intended supply chain, to an un-approved distribution point. e.g. tax-free products intended for export being unofficially re-imported for domestic sale whilst evading local duties and taxes or the unauthorized shipment of goods from low-tax markets to higher tax-markets through unofficial channels.

Duplication

Copying products, labels, packaging, and instructional usage information.

Excise Tax

Taxes levied by governments on certain items (i.e., diesel fuel, cigarettes, spirits) to generate revenue.

Excise Tax Recovery Program

A program meant to help governments collect fiscal tax monies lost to criminal activities including counterfeiting, smuggling, diversion, etc.

Fiscal Transparency

The practice of being open to the public about the structure and functions of government and intentions on fiscal policy.

Grey Market Diversion

Also known as diversion. See above.

Overt

Visible; not secret.

Product compromise

Also known as brand compromise. See above.

Social Capitalism

The practice of contributing to the betterment of society through business practices.

Substitution

The swapping of one product for another - usually of inferior quality. The term also relates to the placement of an inferior product in an authentic or reused package. Example: the refilling of branded liquor bottles with inferior spirits.

Tampering

Altering packaging and labels and using unauthorized goods in place of the real product, e.g. amending the sell by or product expiry date, on expired products to deceive the consumer that the product is fit for use.

TECHNOLOGY TERMS

Bar codes

A series of vertical bars of varying widths, in which each of the digits zero through nine are represented by a different pattern of bars that can be read by a laser scanner. The bars are commonly found on consumer products and are used especially for inventory control. Invisible barcodes would enable authentication and inventory control without the threat of the barcode being copied.

Biometrics

Technology that identifies individuals using biological traits such as retinal or iris scanning, fingerprints, or face recognition. Appropriate for authenticating the person, but does not confirm that the card was made at an authorized facility and is legitimate. Example: a counterfeiter could make a passport with a criminal's biometric information on it.

Digital watermarking

The inclusion of covert digital design features in printed media Used to authenticate online, media content.

Gas Chromatography-Mass Spectrometry

An extremely sensitive and analytical technique capable of absolute identification and quantification of organic molecules.

Hologram

Three-dimensional photographic image made with laser technology. Often used by manufacturers to verify packaging authenticity, but because you can see them, they can be easily copied by counterfeiters.

Mass Differentiated Marker

Mass enhanced twin of an existing molecule that makes it slightly heavier and therefore it can be detected. Analogy: A football stadium is filled with white ping pong balls, only one of which has a drop of rainwater in it. It's detection without touching the others, is a highly specialized process.

Molecular Recognition Marker

An Authentix patented technology in which a covert marker is detected by a unique recognition molecule. As the marker and recognition molecule are specific to each other, infinitesimal concentrations can be detected that would otherwise be undetectable through conventional chemical analysis

Near-Infrared Region

Near-infrared light is the region of the electromagnetic spectrum with wavelengths between 700 and 1,100 nm. In comparison, the ultraviolet region is at 400 nm and the visible region is the middle of the spectrum.

Quantum Photonic Marker

An Authentix patented marker system that allows for instantaneous machine-readable authentication in the field

Radio Frequency Identification Devices (RFIDs)

Microchips that use radio waves to transmit information from a tagged object to a special reader. Requiring non-line of sight-reading, they are particularly useful for the automatic monitoring of stock movement, when incorporated into product packaging. To date, this technology has been too expensive to integrate into most consumer goods packaging. It's inability to authenticate packaging contents limits their use as authentication features.