

## Study of False Alarm Rates on Bottled Water Using the Cobalt Insight Range by Agilent



### 0.024 % Total False Alarm Rate for Water

Supplied by Agilent, the Cobalt Insight range of bottle screeners for liquids, aerosols, and gels meets ECAC Standard 3 in Type B and Type A modes.

Water and soft drinks have frequently been proposed as a potential step towards the lifting of liquid screening restrictions. This publication presents the results of a study conducted using Insight systems to screen a wide range of commercially available waters, as well as tap water, in common re-usable containers.

The bottled waters tested included tap water in drinking bottles, still and sparkling mineral waters, flavored waters, tonic waters, and soda waters (Table 1). The waters had a range of mineral contents (total solid residue) of 0 mg/L (pure) to 3,000 mg/L (high mineral content). Different sizes of bottle and fill levels were scanned. There were 72 different water products sampled, and 12,360 scans were made on several different Insight systems. Only three false alarms were obtained, corresponding to a rate of 0.024 %.



Insight200M (front) and Insight100M systems.

**Table 1.** Water sample test results.

Mineral waters tested	46 Varieties (64 % of water samples tested)
Proportion of sparkling waters	33 %
Proportion of flavored waters	39 %
Proportion containing sugar	38 %
Range of container materials	80 % PET, 16 % glass, 4 % LDPE
Container color	74 % none, 14 % green, 7 % blue, 4 % white, 1 % red

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