Application Brief

Aviation Security

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Screening Medicines with Agilent Insight Series Alarm Resolution Systems

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A false alarm rate of 0% for medicine bottles

Medicines are brought through security both as essential items and for passenger comfort. This application brief presents the results of a study conducted using the Agilent Insight300M and Agilent InsightBLS alarm resolution systems to screen a wide range of medicines in their packaging.

Medicines testing method

In the study, a total of 37 unique liquid medicines were screened in their packaging (Figure 1). The container types were opaque, transparent, and translucent types of glass and plastic (Figure 2) in a range of colors (Table 1). The items were screened on two instruments, the Insight300M and InsightBLS, resulting in a total of 2,070 scans. All items and scans were determined able to screen and cleared using the onboard algorithm. This resulted in a 0% false alarm rate.

Table 1. Breakdown of container colors per group.

Container Groups	Container Colors
Opaque Plastic	Blue (10%), green (10%), red (10%), white (70%)
Translucent Plastic	Blue (33%), green (33%), white (33%)
Transparent Plastic	Blue (17%), amber (17%), clear (50%)
Painted Glass	Pink (100%)
Translucent Glass	Amber (100%)

Figure 1. Selection of medicines screened in this study.

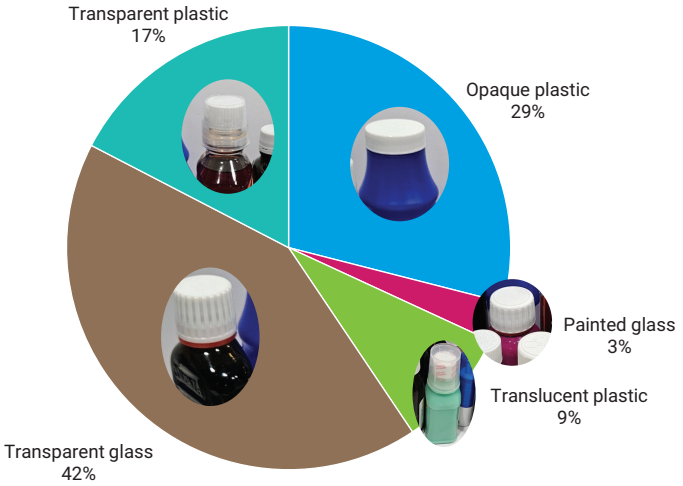

Figure 2. Overall percentage of containers screened. Examples of each group displayed in the circle. All scan results were clear.

Conclusion

The false alarm rate of medicines in their containers was 0% using the Agilent Insight300M and Agilent InsightBLS. As a result, operators can confidently screen essential medicines without the need for additional alarm resolution processes, minimizing operational and training burdens. Moreover, passengers develop peace of mind taking essential medicines on flights without confiscation, improving the experience for all.

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