

The FirstDefender

Clandestine drug labs are becoming a major law enforcement problem across the country. Once limited to the rural southwest, now every state is plagued with this deadly pest. The immediate identification of street drugs and their precursors is a critical requirement for law enforcement authorities, as is identifying and shutting-down clandestine labs.

Existing procedures and techniques to identify narcotics, and other suspicious substances involve contacting the material and sending it to a lab for analysis, wasting time, and, often losing the ability to gather more information from the crime scene. The ability to shine a laser through a bag, bottle or vial to instantly identify a substance can speed the assessment of the potential danger during a lab seizure, and keep first responders safe from exposure to chemicals and booby-traps.

The First Defender is the only light-weight, rugged instrument for in-the-field identification of unknown solids and liquids. The Defender allows accurate identification of unknown solids and liquids in less than fifteen seconds. It sets the standard for accuracy, applicability, durability ruggedness and usability — exceeding everything available in today’s market. With Ahura’s novel technology, the First Defender will dramatically speed-up the identification process in the field, at a considerably lower cost.

VAST DATA BASE

The First Defenders data base includes a broad array of dangerous materials and benign substances, including street drugs, their precursors, and by-products:

- Drugs, narcotics and precursor materials
- Toxic industrial chemicals
- Toxic industrial materials
- WMD nerve and blister agents
- Explosives
- Common chemicals and household materials

Session003 : Scan001	
Mixture	93%
Acetone	73%
(+/-)-2-Butanol	20%

The measured data can not be adequately described by a single library record, but a mixture of the above materials accounts for 93% of the measured Raman data. Values shown are the amount of Raman data that can be described by each material.

ARM 8/9/05 1:56PM

While the First Defender is based on sophisticated chemistry and mathem atical algorithms, you don’t need to be a chemist to operate it. With simple menu driven software, you can learn to use it in a few minutes, assuring fast and accurate on-the-spot identification of unknown samples.



Ahura has developed a comprehensive reference library, internal to the instrument, which includes descriptions of the materials, safety precautions, and first-aid. End users can easily add new signatures to their library and share this information with other First Defender users.

RAPID ANALYSIS WITHOUT CONTACTING OR CONSUMING THE SUBSTANCE

The Defender has the capability of performing measurements directly on liquids, solids, or powders without requiring the sample be handled. Therefore, there’s no need to move or collect the sample to perform a rapid and accurate on-the-spot analysis — leaving the crime scene undisturbed and the evidence uncontaminated.

WHEN A DRUG IS EXPOSED

The First Defender is the ideal tool to quickly identify narcotics in the field. Authorities can use the “point-and-shoot” mode by laying the instrument near the substance without contacting it, and shining the laser onto it. The material will be identified in less than 15 seconds without risk of contaminating the crime scene or consuming any of the evidence.

WHEN THE DRUG IS CONTAINED

The First Defender is compatible with evidence collection and storage. The point-and-shoot mode can identify substances through plastic bags, glass bottles, envelopes or glass bottles sealed inside plastic bags. This allows substances to be identified in the original container without opening it, preventing contamination.



DRUG DISTRIBUTION – VEHICLES AND HOMES

Drug production and distribution is another area where the Defender can assist the law enforcement community. Residue from drug production can be measured to identify suspects and locations where warrants may be justified.

