



Thermo (Ahura) First Defender FD

FirstDefender FD

Description

The First Defender is a handheld Raman spectroscopy system for the identification of unknown solids and liquids. It is designed to be used by military and civilian first responders. The light-weight and rugged so that it can be used for in-the-field identification of unknowns by first responders, soldiers, law enforcement and homeland security personnel.

Mission

The Mission requirement for the FirstDefender is to provide a lightweight, small, ruggedized Raman detector for the accurate detection and identification of chemical threats. This capability supports the Special Purpose CBRNE CM Units requirements for downrange, handheld, chemical point detection of CWA's, TICs, TIMs and explosive precursors.

Capabilities

- ❑ The First Defender handheld chemical identification system can determine the composition of unknown solid and liquid substances, conveniently, in the field. Light in weight—four pounds (1.8 kg)—easy to use, and completely self-contained, the First Defender accurately identifies a wide variety of organic and inorganic compounds, including
 - ❑ Chemical weapons
 - ❑ Petroleum products, pesticides, fertilizers, and plastics
 - ❑ Mineral acids (sulfuric, nitric, etc.)
 - ❑ Inorganic substances (e.g., potassium cyanide, titanium dioxide, ammonium nitrate)
 - ❑ Built of rugged, chemical-resistant materials, First Defender is designed for challenging environments. It withstands shock, vibration, and submersion in water. If necessary, it can be decontaminated. Its battery provides approximately five hours of service at room temperature.



Users

Civil Support Teams

Status

Sustainment

This Fact Sheet was cleared for public release on 5/29/2012.

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