



**Homeland  
Security**

Science and Technology

# Highlight

**U.S. Department of Homeland Security**



**System Assessment and Validation for Emergency Responders**

The U.S. Department of Homeland Security (DHS) established the System Assessment and Validation for Emergency Responders (SAVER) Program to assist emergency responders making procurement decisions.

Located within the Science and Technology Directorate (S&T) of DHS, the SAVER Program conducts objective assessments and validations on commercial equipment and systems, and provides those results along with other relevant equipment information to the emergency response community in an operationally useful form. SAVER provides information on equipment that falls within the categories listed in the DHS Authorized Equipment List (AEL). The SAVER Program mission includes:

- Conducting impartial, practitioner-relevant, operationally oriented assessments and validations of emergency responder equipment;
- Providing information that enables decision makers and responders to better select, procure, use, and maintain emergency responder equipment.

Information provided by the SAVER Program will be shared nationally with the responder community, providing a life- and cost-saving asset to DHS, as well as to federal, state, and local responders.

The SAVER Program is supported by a network of technical agents who perform assessment and validation activities. Further, SAVER focuses primarily on two main questions for the emergency responder community: "What equipment is available?" and "How does it perform?"

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Visit SAVER on the RKB Web site:

<https://www.rkb.us/saver>

## Multi-Sensor Meter (MSM) Chemical Detectors

MSM detectors, also commonly referred to as multi-gas monitors, allow responders to detect multiple chemicals that could affect their response operations. Detection capabilities include recognition of oxygen-deficient or oxygen-rich atmospheres, combustible gas levels (percentage of lower explosive limit [LEL]), certain combustible vapors, and a wide selection of toxic gases. Some MSM also offer photo-ionization detector (PID) capabilities, which can detect volatile organic compounds (VOC), and other detection technologies, including infrared (IR) absorption, which can detect specific gases (e.g., carbon dioxide [CO<sub>2</sub>]), combustible gases, and chlorofluorocarbons (CFC).

In May 2006, the Center for Domestic Preparedness (CDP) conducted an assessment of MSM chemical detectors for use in weapons of mass destruction (WMD), hazardous materials (HAZMAT), or other all-hazards events. Because of technology upgrades, a follow-up assessment was conducted to include newly available MSM detectors for responder use. A market survey was conducted to provide updated information on currently available MSM equipment, and results are available in the *Market Survey Report on Multi-sensor Meter (MSM) Chemical Detectors*.

All reports in the series, including the *Assessment Report on Multi-sensor Meter (MSM) Chemical Detectors* will be located on the SAVER Web site (<https://www.rkb.us/SAVER>) as they become available. Information on other technology being evaluated in the SAVER Program can also be found on the Web site.



**Multi-Sensor Meter Chemical Detector**