HAZMAT Monitoring

Using the MSA SAFESITE® Multi-Threat Gas Detection System and Portable Gas Detection

MSA
The Safety Company

Upon arrival at a HAZMAT scene, first responders need to develop a sense of situational awareness. They then need to identify all hazards both chemical and physical in the area of the incident, including areas above and below where responders may travel. They need to quickly determine where the threat is—and isn't—and whether it is moving, to enable creation of a safe zone for command operations. When possible, all personnel (especially local residents) should be kept in a safe zone upwind and uphill from the hazard.

At a spill or accident site HAZMAT responders employ many types of instruments. One important technological advance is the use of wireless communications to provide an improved tactile picture. Instruments such as portable survey analyzers and fixed point monitors can be temporarily deployed into a hot zone and easily operated while the users are in PPE. This provides the incident commander and hot zone operators with real-time information at a safe distance from the hazard.

While the spill or leak is being cleaned up, the datalog monitors and records changes in the threat zone. This provides a history of the chemical vapor exposure that can be used to gauge the toxicological implications for subsequent medical treatment. This information provides guidance about the level of PPE required inside and outside of the hot zone. Additionally, compatibility with plume modeling software enables delineation of the vapor plume area, so that safety evacuations can be coordinated in only the necessary zones.

MSA employs next generation technologies offering responders key product advantages:

- Detection specificity allows users to not only detect a threat, but to identify which type of hazard it is so that they can begin making decisions withconfidence
- Fewer false alarms means that readings are taken seriously
- Ease of use allows infrequent users to perform their duties correctly
- Lower ownership costs lead to long-term savings

Detect...Identify...Respond...

HAZMAT responders face the hazard of arriving at emergency scenes where undetected threats may be present. MSA provides a broad range of detection technologies for on-site identification of many chemical, biological, and gaseous hazards and contaminants.

- Chemical warfare agents (CWAs)
- Toxic industrial chemicals (TICs)
- Biohazards
- Gamma radiation
- Volatile organic compounds (VOCs)
- Combustible gases
- Oxygen-deficient environments

HAZMAT Examples

- Terrorist attacks (chemical, radiological or biological warfare agents)
- Chemical leaks at refineries or chemical plants
- Hazardous liquid spills
- Overturned vehicles
- Natural gas leaks

CWA and Toxic Industrial Chemical Detection

HAZMATCAD® and **HAZMATCAD® Plus Hazardous Material Chemical Agent Detectors** protect against chemical threats including phosgene, hydrogen cyanide, halogen and hydride gases. These rugged, compact and portable instruments offer one-handed operation and require little training.

- CWA and TIC detection
- Detect significantly below IDLH levels
- Provide superior selectivity and best-in-class false alarm rejection
- 8-12 hour runtime
- Single key press begins automatic analysis

The **Sirius® Multigas Detector** with PID is a portable instrument for simultaneous detection of VOCs, combustible gases, toxic gases, and oxygen deficiency, allowing detection of hundreds of chemicals. The Sirius Multigas Detector provides the solution that you are looking for in one complete package, with incredible performance, simplicity and durable design.

MSA **Detector Tube Kits for Chemical Warfare Agents** offer an inexpensive, reliable and easy to use method of chemical warfare agent identification. In the event of a chemical warfare attack, first responders need to quickly identify the type of agent that has been used. MSA has detector tubes for nerve agents, blister agents and blood and choking agents.

Biological Agent Detection

The **BIOSENSOR™ 2200R Biological Agent Detector** is a hand-held portable instrument for rapid detection, analysis and identification of certain biohazards. Bioassay technology offers a low rate of false positives, with results displayed as either target present or no target present. Single-test, disposable cartridges are available for:

- Anthrax
- Ricin
- Botulism
- SEB

Wireless Solutions for Weapons of Mass Destruction (WMD) Detection

The SAFESITE® Multi-Threat Detection System monitors and detects up to six threats: CWAs, TICs, VOCs, combustible gases, gamma radiation and oxygen content, using a wireless network. SafeMTX™ monitors are easily moved from place to place. Multiple SAFESITE Systems can be deployed around a two-mile radius, with all readings being monitored from a central location. Portable instruments such as the HAZMATCAD and Sirius Detectors can also be a part of the network. The command center is easily setup in a HAZMAT vehicle, where readings from remote sensors can be monitored by an incident commander.

Note: This bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used byuntrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.

ID 07-2173-MC / April 2009

Corporate Headquarters
P.O. Box 426, Pittsburgh, PA 15230 USA
Phone 412-967-3000
www.MSAnet.com

U.S. Customer Service Center
Phone 1-800-MSA-2222
Fax 1-800-967-0398

MSA Canada
Phone 416-620-4225
Fax 416-620-9697

MSA Mexico
Phone 01 800 672 7222
Fax 52-44 2227 3943

MSA International
Phone 412-967-3354
FAX 412-967-3451

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