Meth Labs: The Gases Can Kill You

By David Kuiawa

The early morning sun is just about to break the horizon. It's 06:00, the wind is deadly calm, and the dim light dances across the frosty meadow; the only thing that stands between your team and an innocent looking farmhouse. However, this farmhouse is far from benign. You have received numerous complaints about strange smells wafting from the property, there is traffic coming and going at all hours of the night, and there is a small dump containing cold medicine bottles, containers, and lithium battery skins. All of the evidence points to the existence of a small clandestine drug lab on the premises.

You have been in this situation before; the nervous feeling you harbor only serves to heighten your sense of alert. As you brief your team before the raid there are a thousand things racing through your mind. On top of the list is a review of the hazards you may encounter. Most obvious are the physical ones. You've heard of everything from landmines, homemade bombs, and automatic weapons, to snakes, tigers, and rotweilers. The "tweekers" running this place will do everything they can to keep from getting caught.

And while the bullets, bombs, and booby traps are certainly a concern, there are also unseen gas hazards that can be even more deadly. A clandestine drug lab, or "clan lab" for short, is really a crude chemistry lab operated by people ranging in experience. Those with laboratory grade equipment and is staffed by chemists in high quantities production. Super labs use the RP method of manufacturing meth.

Fortunately, we now have direct reading gas monitors that will quantify the levels of deadly toxic and explosive combustion gases. Until recently, however, the only technology available to monitor the phosphine, ammonia, and hydrogen chloride gases associated with meth labs were colorimetric indicator tubes. These gas tubes were cumbersome, took several minutes to react, and were quite inaccurate.

Fortunately, we now have direct reading gas monitors with the capability of monitoring these five target gases simultaneously and continuously. And with lithium-ion battery technology that will run for 24 hours on a single charge and sampling pumps that can sample from a range of 100 feet, firefighters and HazMat teams can now also be effective while remaining at safe distances.

The new technology also means that firefighters can now play a vital role in evidence gathering since the hydrogen chloride, phosphine, and ammonia, and combustible gas monitors are also able to document who is using the monitor and where they are using it. Combine this with the capability to interface with automated calibration systems that control calibration, bump testing routines, and the timing of them, and the fact that routines can be documented on a PC to prove the accuracy of the monitor as well as produce printed certificates to confirm and validate evidence of the calibration, the data is now generally legally admissible, and supportive to the effort of reducing the clandestine drug lab hazards overall.

Cut to the chase

Ultimately, the goal is increased safety. In this sometimes dirty business, where criminals are willing to break the law and jeopardize emergency responders with traps and hazards, firefighters should always be looking to new technology as a means of better protecting themselves from the hazards - especially from the five target gases associated with meth labs.

Dave Kasiava is Sales Manager, North and South America for Industrial Scientific Corporation. He has been with ISC for 14 years serving in various capacities including Manager of Customer Services, Service Manager, and Sales and Training Coordinator. Dave may be contacted at (9001) 338-3287.