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## 8-hour HazMat 101 Essentials Course

**Course Title:** HazMat 101 Essentials Course

**Session Description:** Upon completion of this session the participant shall understand chemical and physical properties, chemical nomenclature and reference materials to complete the action plan analysis portion for transportation and fixed Hazardous Materials incidents.

**Session Abstract:** HazMat in general is viewed as a complicated, and boring topic. When in reality, it is just like any of the rescue disciplines, a refined art. In HazMat much too much emphasis is placed on the details of chemistry and not enough time looking at the chemical processes that apply to a specific incident or event. It is true that HazMat as with other disciplines found within Emergency Response Special Operations is a scene of high consequence and low frequency. Because of how often these incidents present a degree of complexity falsely shrouds these event. It is due to the frequency that difficulty often presents as a level of anxiety to the first responder. Although a transportation and fixed HazMat event often requires several concepts to be integrated simultaneously each component of the process can be broken down and analyzed. It is this process that gives rise to the approach that combines the main concepts of HazMat and the science of chemistry and physics.

It is a process of identifying, analyzing and thus controlling the risks and hazards that are present or may become a part of your incident. It is a balanced approach weighing the amount of data that you can quickly collect and what the information means. The second part is how we can verify this information based upon published data. We start with the states of matter and the corresponding Chemical and Physical properties. Each of these data points directly correlates towards a detection strategy and/or scene observation.

### Enabling Objectives:

Given a set of transportation and fixed scenarios, the participant shall:

- A. Use basic understanding of chemical and physical properties to derive an action plan.
- B. Use a detection strategy based upon the scenario.
- C. Demonstrate the chemical and physical properties that the detection strategy utilizes.
- D. Describe the chemical family(s) that are potentially involved within the given scenario.
- E. Utilize chemical nomenclature through referencing to achieve a plan of action.
- F. Demonstrate the logic of chemical nomenclature towards a hazard characterization.
- G. Describe through the use of data collection referenced information.
- H. Utilize reference tools to formulate an action plan.

### Target Audience:

**EMS** - Paramedic

**FIRE** - Hazmat Technician, HazMat Safety Officer, HazMat Officer, Incident Commander

**Session Time:** 8 hour

**Instructors:** Chief A. S. Bevelacqua (retired)  
Orlando Fire Department  
Special Operations, Homeland Security, and Medical Command

**Sponsored By:** District 2 LEPC and Tallahassee Fire Department

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