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VTFC-2009-103

INTELLIGENCE BULLETIN

November 6, 2009

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****** OFFICER SAFETY / FIRST RESPONDER BULLETIN ******

HYDROGEN SULFIDE GAS / DETERGENT SUICIDE

Hydrogen sulfide gas mixtures are easily constructed from readily available materials and can have lethal effects in confined areas. First Responders should remain vigilant and follow appropriate procedures to minimize threat of exposure.

Ada County, Idaho in May 2009 saw it's first "Detergent Suicide", it is so named for the ingredients utilized that when mixed together produce a deadly Hydrogen Sulfide gas that once inhaled acts as an asphyxiant. The incident involved a young male locking himself in his car and mixing chemicals that are readily available to the public, such as Muriatic or Sulfuric acid, mixed with an organic phosphate, such as toilet bowl cleaner or insecticide to create the Hydrogen Sulfide Gas. The vehicle had "Hazardous Materials" warnings that appeared to be printed on a home computer taped to the outside of the car. The warnings indicated that the car contained Hydrogen Sulfide gas and that one breath can kill. The lone occupant of the vehicle, a 29- year-old male, was slumped over in the driver's seat. In the first six months of 2008 alone, Japan suffered more than 500 suicides using this method.

Hydrogen sulfide is a colorless, toxic, and flammable gas found naturally in crude oil and natural gas deposits, from bacterial decomposition of plant and animal matter, and as a byproduct of chemical processes involving sulfur compounds. Hydrogen sulfide is typically characterized as having a "rotten egg" odor, sometimes referred to as "sewer gas", and can be detected by smell at very low (non-toxic) levels. The gas is generated by combining commercially available acid and sulfide-containing products. Strong acids can be obtained from many types of cleaning products, and sulfide compounds can be obtained from fungicides, paints, and some hair shampoos.

Although the amounts of hydrogen sulfide generated by many products vary, individuals may use environmental controls, such as an enclosed space, to maximize the dose received. These individuals sometimes post warnings to inform responders of the hazard associated with their suicide attempt; however the entry by unprotected rescuers into a hazardous environment due to the absence of a warning or through a lack of recognition of the odor of hydrogen sulfide is of concern to the first responder community.

Hydrogen sulfide targets the eyes, respiratory system, and central nervous system. Its IDLH value (i.e., concentration at which it is Immediately Dangerous to Life or Health) is 100 ppm, and at higher concentrations incapacitation is rapid. Prolonged low-level exposure or acute exposure to high concentrations de-sensitizes the sense of smell rendering individuals unaware of continued exposure.

Several terrorist training manuals, such as the "Mujahideen Poisons Handbook" and materials posted to jihadist websites, have discussed using hydrogen sulfide gas as an attack method, however, no information indicates terrorists are actively planning attacks using this chemical.

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