



Department of
Emergency Medical Services
Wake County EMS Division

TEL 919 856 6020
FAX 919 856 6209

P.O. Box 550 • Raleigh, NC 27602

MEMORANDUM TO: All Personnel – All Wake County EMS System Agencies
FROM: Skip Kirkwood, Deputy Director
SUBJECT: IMPORTANT: Urgent safety information for everyone!
DATE: February 22, 2010

Yesterday, EMS, Cary Fire, Raleigh Fire HM1 and SR2 responded to a call in Cary regarding an unconscious victim in a vehicle. Upon arrival, the fire personnel noticed signs on the dash board stating “call police and Hazmat.” When Hazmat arrived they donned Level B PPE and SCBA and opened the door to the vehicle – the monitors showed 340 ppm of H₂S (Hydrogen Sulfide) – ***the IDLH (immediate danger to life and health level) for this product is 100 ppm.*** The person inside the vehicle had committed suicide by mixing a caustic substance with an organic phosphate inside a 5-gallon bucket. This call was an exact copy of one that occurred in Idaho last May. Attached is a memo that discusses the Idaho call and the issues relating to it.

Please be cautious as to how we approach these calls in the future, we are no longer “immune” to the problems found in the big cities. My concern is that someone won’t be so kind next time and post notes on the car as a warning, or that the warning won’t be seen until too late. Specifically, if a public safety responder without benefit of SCBA had opened the car door, or had entered in to a closed space like a garage with this event happening inside, the results might have been fatal. There have been several other instances of public safety responders overcome by H₂S fumes in similar circumstances.

H₂S is highly toxic - may be fatal if inhaled. ***Inhalation of a single breath*** at a concentration of 1000 ppm (0.1%) may cause coma. Corrosive when moist. ***Skin contact may cause burns.*** There is a rapid loss of sense of smell on exposure to gas concentrations above 150 ppm, and this means that the extent of exposure may be underestimated. Perception threshold ranges from 0.5 ppt to 0.1 ppm. The gas is both an irritant and an asphyxiant.

EMS personnel who happen to arrive first at a scene as described here should establish a hot zone and remain outside until fire personnel in full turnouts and SCBA breach the vehicle and extract the patient/victim to a safe area. Assessment of viability and the appropriateness of resuscitation attempts should then proceed as per protocol. Remember that the agent is an asphyxiant. Special PPE beyond gloves is not required.

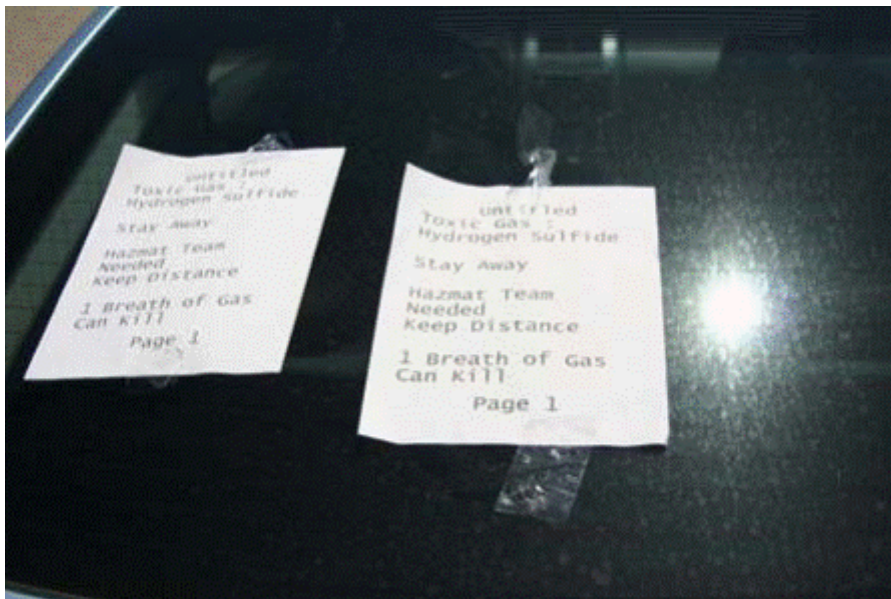
Please take extreme care – this is nothing to fool with. Please review the attached.

Thank you.

Ada County Sheriff's Office
***** OFFICER/EMERGENCY RESPONDER SAFETY BULLETIN *****
NOT FOR PUBLIC RELEASE
Ada County, Idaho – May 14, 2009

Yesterday Ada County experienced our 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 asphyxiate. This method of committing suicide is popular in Japan and references to it can be found on the Internet. Simply put, 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 will create the gas. Concentrated in a small area, if the levels exceed 100 parts per million (which really is not very much) the gas is toxic.

In our Ada County Case, on 5-13-09 a blue Toyota Scion was observed at the Lookout Point near Lucky Peak Dam on Highway 21. 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.



It was determined that the Boise Fire Hazardous Materials Team would assess and stabilize the scene prior to any manipulation of the vehicle or its occupant. In retrospect it is useful to consider the following when responding to situations where this method might be utilized.



1) Officer safety and Public safety could be compromised if the gas, usually concentrated within a small space like a car, bathroom, outbuilding, etc. is released without the proper safeguards in place – namely evacuation of the area, and release accomplished by people (i.e. the Hazmat Team) who are properly equipped to do it.

2) First responder awareness and education regarding this method is key in saving your own life. If you enter an area and it smells like rotten eggs take this as a clue to exit the area. The bad thing is that if you continue in the contaminated environment, the gas will actually diminish your sense of smell so you won't be warned by the continued presence of the gas.

3) Hydrogen Sulfide gas is extremely flammable. Tactical entries into a contaminated environment utilizing a “flash-bang” or sting-ball device could cause an explosion. If this method catches on in the U.S. not only as a mode of suicide, but as a way of booby-trapping a clandestine location, our chances of exposure will increase.

First Aid:

Remove victims from exposure. Support breathing. Remove contaminated clothing ASAP. If there is eye exposure, flush with lukewarm water for 15 minutes. If skin exposure, wash with soap and water for 15 minutes. Rush to a health care facility. The upside is that if you get to non-contaminated air quickly the effects will dissipate.

<http://www.policelink.com/news/articles/100793-officer-safety-caution-method-for-committing-suicide>

Please share this information with your teams and fellow First Responders so we can all become more aware and educated about these occurrences. If you have any questions of Ada County Sheriff's Office Staff please call Det. Jaime Barker at 208-577-3781.









