CHEMICAL SUICIDE
The Growing Phenomenon
CHEMICAL SUICIDE

DETERGENT SUICIDE AND IT’S BEGINNINGS
CHEMICAL SUICIDE

- Chemical suicide or detergent suicide has been present in the United States since around 2008 and seems to be on the rise.
  - In 2008: 3 incidents
  - In 2009: 9 incidents
  - In 2010: more than 30 incidents
  - In 2012 and current: still on the rise
  - October 2013, San Diego County
  - Even in Indiana at Willkie Residence Hall on Indiana University Campus
CHEMICAL SUICIDE

- This new wave of suicide began in Japan in 2007, where they reported more than 2000 cases.
- It has spread to the United States via the internet, where potential victims gain all the information they need to complete their task at hand.
- Suicide by asphyxiation via chemical reaction.
WHAT IS IT?

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- It is a combination of common household cleaners that create a two-part mixture resulting in a **DEADLY** gas.
- Most common mixture is hydrochloric acid and lime sulfur (Bonide).
  - *Both products are easily obtained at most local hardware, grocery, or agricultural stores. Even the large outdoor centers that carry landscape and planting supplies will tend to stock these items.*
  - *Other items labeled with retail/trade names can be used as long as they carry the proper ingredients.*
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- The chemical mixture produces a heat releasing – exothermic – reaction that will produce the deadly gas that can easily fill a small confined space.

- For this reason, the suicide attempt is most commonly done in a vehicle or small room, such as a bathroom, or closet.

- Modern day vehicles are especially air tight and provide the perfect atmosphere. In a small room of a house, the doors and windows would have to be sealed with additional products like tape and towels.
CHEMICAL SUICIDE: USUAL INGREDIENTS
WHAT ARE THE SIGNS?

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- SOME KEY INDICATORS ARE:
  - Unresponsive person in vehicle, slumped over in seat, **BEWARE!!!**
  - Windows fogged or tinted with a yellow/greenish residue.
  - Smell of rotten eggs or sulfur (hydrogen sulfide)
  - Smell of almonds (hydrogen cyanide)
  - Empty containers visible in vehicle from mixture preparation
  - Maybe, **WARNING SIGNS** placed on vehicle windows or even at entry doors of a house.
  - If it looks strange, **DON’T PROCEED!!!**
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- Picture on vehicle window warning of hazard
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THE DANGERS THAT ARISE

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- Hydrogen sulfide (H2S) is a colorless gas with a strong odor of rotten eggs, or sulfur.
- H2S is extremely toxic when inhaled, creating a dangerous atmosphere for emergency personnel responding to a chemical suicide incident.
- It is an asphyxiant, that kills by not allowing the cells in the body to use their life supporting oxygen. The body suffocates at the cellular level, resulting in body death.
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- WHEN EXPOSED TO HYDROGEN SULFIDE:
  - 0-50 ppm: minor eye, nose, and throat irritation
  - 10-50 ppm: headache, dizziness, nausea/vomiting, coughing, and difficulty breathing
  - 50-200 ppm: severe eye and respiratory irritation, convulsions and shock, coma, and even possible death
  - Levels above 700 ppm will cause immediate death after just two or three breaths.

- NOTE: At levels above 500 ppm, hydrogen sulfide is considered very flammable if exposed to an ignition source.
- NO SMOKING- NO SPARK CREATING TOOLS- NO TASERS
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- Observe for large buckets used in the mixing of the products
- Scan for empty bottles of potential chemicals used as the mixing agents
- Only $\frac{1}{2}$ to 1 cup of each chemical will produce enough gas to fill a standard four door sedan with 1000 ppm of toxic gas. This is instant death!
- It has been found that several suicide victims mixed multiple gallons inside their vehicles, resulting in a very flammable environment.
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- Hydrogen sulfide has a vapor density of 1.19 which denotes it is heavier than air. If monitoring for a reading, check close to the ground.
- If the gas is released in confined space, such as a vehicle, it may be absorbed into the interior surfaces of the vehicle as well as the clothing and apparel of the victim.
- **VENTING OF VEHICLE MAY NOT REDUCE LEVELS TO A SAFE ATMOSPHERE**
- H2S will continue to off-gas from the surfaces where it has been absorbed
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DON'T TAKE ANY CHANCES WITH YOUR LIFE!
Hydrogen sulfide has a rate of decay that ranges anywhere from 12 to 37 hours. This rate depends upon the ambient air temperature. The colder it is, the longer it will take. The warmer it is, the faster it will decay.
THE INCIDENT RESPONSE

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- It is highly possible that you will be called to a chemical suicide.
- The potential to occur at the middle and high school level is increasing.
- There is evidence indicating a shift to younger and younger individuals interested in gaining information on chemical suicides, making this their method of choice for suicide.
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- It is very important that you recognize the clues noted earlier and maintain a safe distance from any potentially hazardous chemical scene.
- Don appropriate PPEs, both contact and respiratory
- Monitor the atmosphere
- Always protect yourself from exposure via secondary items (i.e. Vehicle interior)
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- You may never know the exact time of scene creation.
- **DO NOT** get in a hurry to rescue a dead body.
- **ALWAYS** check your scene safety prior to advancing into a potentially dangerous situation.
- If unsure of how to handle the possibility of exposure, call for a Hazardous Materials Response.

- **SAVE THE LIVES OF THOSE AROUND YOU, PREPLAN!!**
QUESTIONS FOR CREDIT:

1. What is another name for chemical suicide?
2. What are the usual ingredients mixed?
3. Where do these events usually occur?
4. List three key indicators that a potentially hazardous condition may exist if responding to a person down in a vehicle.
5. What does hydrogen sulfide H2S do to the body that results in death?
6. At what air concentration level does H2S become flammable?

Email your answers to sfreeman@riverview.org.