**MELODY “A harmonized CBRN training curriculum for first responders and medical staff”**

**DIRECTORATE-GENERAL MIGRATION AND HOME AFFAIRS - ISFP-2017-AG-PROTECT**

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**Answers of 6.2 Test Questions**

**6.2 Mitigation**

1. Is using a water screen when there is a toxic cloud an act of elimination or containment?

**[Answer]** when you use a water screen this will limit the dispersion of the toxic cloud so therefore is a form of containment. However, the agent forming the toxic cloud is still present.

1. During dredging of the shipping channel, one of the excavators removed an old barrel from the bottom. The barrel was unloaded onto the edge of the shipping dock. Suddenly, the barrel cracked and a clear, colorless liquid was released. Ten contractor workers and two custom officers collapsed unconscious. The custom officers were accompanied by two border force sniffer dogs that had difficulty in breathing and were seen to have convulsions. While still arriving at the scene, you get a notification that the probable causative agent is Tabun. What would be the most valuable mitigation measures that you can offer as a first responder?

**[Answer**]

Actions taken -Stay in fresh air and move away from the dock where the barrel was placed. Go to the highest ground possible, because tabun is heavier than air and will sink to low-lying areas.

The people who are exposed, should remove their clothing, rapidly wash their entire bodies with soap and water, and get medical care as quickly as possible.

Protect your lungs by wearing independent breathing apparatus, protect your hands by wearing chemical resistant gloves and, if available, protect the rest of the body by wearing a Level B chemical resistant suit (see chapter 5.6 Personal Protective Equipment). You could consider, while staying upwind, to cover up the broken barrel to eliminate further spreading of the agent.

However, in case of proper PPE or equipment not being available, clearing out the area will be your only option.

Background information (not part of the answer): Tabun is a nerve agent and, as most nerve agents, it is primarily designed to act via inhalation. Furthermore, Tabun is absorbed quickly and mixes easily with water. When in this case, it is released as a liquid, it is absorbed through the skin. Finally, Tabun is heavier than air and will tend to accumulate in low-lying areas.

More information on nerve agents like Tabun are to be found on:

<http://www.emro.who.int/ceha/information-resources/nerve-gas-fact-sheet.html>