



Letter to the editor: The Pundit Speaks
By Randolph M. Howes, M.D., Ph.D.
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“ Oil Dispersants: Safe or Toxic? ”

With the amount of chemical oil dispersant approaching 1 million gallons sprayed on the Gulf surface water and over 60 thousand gallons injected underwater, we need to consider if these attempts to help are like trying to put out a raging fire by throwing gasoline on it. Are we adding additional toxins to an overwhelming toxic situation?

Toxic is defined as relating to or containing a poison or causing serious harm or death. British Petroleum (BP) spokesmen have assured us of the safety of the dispersant *Corexit*. BP is using 'Corexit 9500' and 'Corexit EC9527A,' also known as deodorized kerosene. Kerosene exposure has been shown to be potentially harmful to human volunteers and workers and has the potential to harm birds and marine life, such as sea turtles, dolphins, breathing reptiles and species, which need to surface to breathe.

Reportedly, the dispersant is designed to turn the oil slick into small particulates, which migrate to the sea floor, where the shrimp, crabs and oysters reside. Some environmentalists argue that the dispersants merely attempt to hide the problem and they may be adding to the overall toxicity problem. The Gulf Oil Disaster Recovery Group claim that, "Toxicity of the petroleum products is increased when it is dissolved into the water by dispersants. In essence, this activity is making aquatic organisms more exposed to chemicals' harm." There is a major benefit/risk ratio to be considered here.

Others claim that other dispersants are variants of antifreeze (propylene and ethylene glycol). Ethylene glycol is a well-known illegal killing agent for farm varmints and in homicide forensics. However, there have been no tests with such large quantities of these products. I did a quick search on propylene glycol and found that intravenously it can cause major metabolic changes (acidosis; severe propylene glycol toxicity) and that it can induce in vitro chromosomal damage in eukaryotic cells (possible cancer-like changes). Avoidance of this "toxic soup" sounds like a wise policy, folks.

An even bigger issue is the race to figure out how the dispersants might impact oil-eating microbes that normally help clean up the spill. The microbes prefer the lighter gasoline part of the crude slick and they leave behind the heavily weathered residue, which makes its way to the surface and to beaches in the form of tar balls. Additionally, many micro-organisms produce their own chemical dispersants, and we don't know how the (added) chemical dispersants interact with the natural ones.

In the America that I love, we realize that there could be a harmful cascade of toxic events precipitated by the crude and these dispersants. Our Gulf region has been blessed with beautiful beaches, bountiful marshlands and the world's best seafood. We must be ever so vigilant not to make a catastrophic situation even worse. We must resist knee jerk reactions with unknown consequences.

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