



Just the Facts...

Fog Oil - Individual

GENERAL INFORMATION	<p>Fog oil is one of many “obscurants” used to create a cloud or haze that hides you from the enemy or the enemy from you. The enemy uses them to prevent target acquisition, visual communication, and movement. Obscurants are either naturally occurring or manmade particles suspended in air that block light.</p> <p>Fog oil is an oil smoke generated by injecting mineral oil into an engine. The oil vaporizes upon heating and condenses when exposed to the atmosphere, creating little droplets. Since 1986, the military specifications for the mineral oil used for fog oil have required specific processes that remove all cancer causing components or additives. This reduces potential health effects from fog oil, even if exposure were to be long-term.</p>
ROUTINE EXPOSURES IN THE DEPLOYED SETTING	<p>Fog oil may be used as a visual obscurant to block visible light and cover troop movements or activities.</p>
PERSONAL PROTECTIVE EQUIPMENT (PPE) and COUNTERMEASURES AVAILABLE FOR DEPLOYED PERSONNEL	<p>U.S. Army training policy requires use of protective masks when passing through or operating in dense smoke (visibility less than 50 meters) or when operating in a smoke haze (visibility greater than 50 meters) if the exposure will exceed four hours. Protective masks should also be worn when exposure produces breathing difficulty, eye irritation or discomfort. Smoke generator personnel must also mask if they cannot stay upwind of the smoke generator.</p> <p>Showering and laundering of clothing where feasible will remove fog oil from skin.</p>
EXPOSURE LEVELS HISTORICALLY ENCOUNTERED	<p>Sampling done in training settings shows that the concentration of fog oil can be determined by the visibility. The more fog oil generated, the higher the concentration. The safe level depends on how long people will be exposed. If you were exposed to high levels of fog oil where you couldn't see, you may have had some chest irritation. Usually, soldiers will mask in those conditions.</p>
SIGNS AND SYMPTOMS OF ACUTE AND CHRONIC EXPOSURE	<p>Workers who worked for years with mineral oil mists have not had significant lung problems. In some instances, workers had increased cough or phlegm, but the oils were usually not the purified oils used for fog oil. Animals exposed to very high concentrations of mineral oil mists can get “lipoid pneumonia.” This condition is a coating of the lungs with oil making it difficult to breath, but this has not been seen in workers and typical work or training exposures are much lower.</p> <p>Oils can irritate the skin initially and can cause rash like conditions with chronic exposure. The oil used for fog oils has not been shown to cause these conditions. The oil used for fog oil does not contain additives that are known or thought to cause cancer.</p>

<p style="text-align: center;">SIGNS AND SYMPTOMS OF ACUTE AND CHRONIC EXPOSURE</p>	<p>Respiratory problems have not been reported in soldiers who train regularly with fog oil. Workers in various industries are exposed to fine mists of oil and in some instances have reported increased cough and phlegm, or wheezing after long term exposures. A review of all of these studies concluded that the majority of studies do not point to serious respiratory problems in the concentrations commonly found in industry. Military operations and masking guidance should prevent exposures to concentrations that would pose any short or long term health risks. Cough or mucous production, should it occur, will resolve.</p> <p>Fog oil is less irritating to the skin than diesel fuel due to the purification processes.</p>
<p style="text-align: center;">TREATMENT REQUIRED/AVAILABLE FOR EXPOSURE</p>	<p>No specific treatment is required. Acute symptoms, if any, resolve on their own</p>
<p style="text-align: center;">LONG TERM MEDICAL SURVEILLANCE REQUIREMENTS OF HEALTH EFFECTS MONITORING</p>	<p>If an exposure occurred during deployment, it would be a short-term exposure and would not require any long-term follow-up.</p>
<p style="text-align: center;">SPECIAL RISK COMMUNICATION INFORMATION</p>	<p>Fog oil exposures, if they occur during the deployment should not cause health effects in the troops exposed if the procedures for masking are followed. If soldiers mask when visibility is less than 50 meters, health effects should not occur. Exposure to high concentrations for short periods without a mask may cause cough or increased phlegm and occasionally shortness of breath, but these are temporary conditions. Fog oil should not be irritating to skin.</p>