

# It's Dangerous to Wear Synthetic Fiber Underwear Under a NOMEX Suit

A question that surfaces frequently is: Is it safe for Combat Vehicle Crewmen (CVC) to wear underwear made with synthetic fibers under their NOMEX CVC coveralls?

The answer is, No.

Armor soldiers in the field need to be made aware that a potential safety hazard may exist if these type of synthetic underwear are worn under their NOMEX CVC coveralls in the event of a tank fire. Nylon and synthetics such as polyester and polypropylene melt at about 480 degrees fahrenheit and 300 degrees fahrenheit respectively. Heat transfer through your NOMEX (which is resistant to temperatures up to 700 degrees fahrenheit) could be high enough to melt these synthetic undergarments. It also should be noted that your NOMEX will burn if it's contaminated with flammable substances such as Petroleum, Oil, and Lubricants (POL) products or household starch. Dry cleaning or laundering after contact with these substances will restore your NOMEX's fire retardant state.

To restate the importance of wearing proper underwear underneath your NOMEX, I'll use a quote that CW3 Boyd Tackett III made in a recent flight FAX regarding the experience he had when his aircraft caught afire. "My chest, back, and buttocks were spared from any burns at all due to the cotton underwear that I had on. The burn literally went to where the underwear was and stopped. If I hadn't been wearing my NOMEX protective equipment and wearing it properly, there is no doubt in my mind, that I would very probably have either died in the fire or died as a result of the burns I would have received."

So for your protection, the underwear that you wear should be made of 50% cotton/50% wool or 100% cotton. These natural fibers won't melt under heat and will help keep the heat away from your body in a flash fire. If your underwear is fabri-



cated of 50% cotton/50% polyester, it's unsafe to be worn when the possibility of flame hazard exists. If you have any additional question on this subject please give us a call (Mr. Larry Hasty) here at Directorate of Force Development, DSN 464-3662/2176.

