



PFOA AND TURNOUT GEAR

At LION, our first concern is safety. Our gear meets all applicable standards to protect firefighters. It is extremely important that firefighters continue to wear and properly care for their turnout gear for safety on the job.

What is PFOA?

Perfluorooctanic Acid (PFOA) is a chemical that until recently was used in the process to make many different industrial chemicals and products. The manufacture and use of PFOA was mostly phased out by major chemical companies by 2010. By 2015, its manufacture was eliminated in the United States.

In the firefighting protective clothing industry, PFOA was used as a processing agent in the manufacture of resins used to make PFTE films – the primary component of the moisture barrier used in turnout gear. While most residual PFOA was eliminated from the manufacturing process of PTFE, some tiny trace amounts remained.

PFOA and turnout gear

Lion does not use PFOA or PFOS in our turnout gear or any of our protective products. PFOS has never been a component of turnout gear. PFOS health and environmental concerns are largely related to AFFF foams and are not connected to turnout gear.

The International Association for Research and Testing in the Area of Textile Testing and Leather Ecology, known as OEKO-TEX, has published its Standard 100 which recommended a maximum level of residual PFOA in consumer garments at 50 parts per billion. For firefighter personal protective equipment, the OEKO-TEX standard 100 has a maximum limit of 25 parts per billion of PFOA.

We recently commissioned an independent outside laboratory to test sample swatches from an unused set of turnout gear manufactured by Lion in 2018. Samples were taken from the elbow, cuff and neck areas worn directly adjacent to the skin. The tests showed virtually zero trace amounts of less than 1 part per billion of PFOA and zero amounts of other “long-chain” perfluoroalkyl acids. The trace amounts of PFOA were more than 25 times below the OEKO-TEX limit. Another test performed in April 2019 on outer shell fabric of a turnout coat manufactured in December of 2018 showed no PFOA present above background levels.

The IAFF has reviewed the science and stated that “it is unlikely that PFOA is present in any significant concentrations in uncontaminated new or recently US manufactured turnout gear” and that “even if present on outer shell treatments or within the moisture barrier of legacy turnout gear the exposure contribution from any such PFOA content is likely to be minimal since volatilization from the manufactured product would be required.”

We are continuing to do research, talk to our suppliers, and reach out to industry experts. We are also monitoring ongoing efforts by scientific researchers, including public health entities such as NIOSH, and research commissioned by IAFF, as well as state and federal regulations and EPA activity. We will continue to encourage our suppliers to look at available alternatives to fluorinated substances as durable water repellent finishes on turnout gear but right now the current finishes provide the best combination of water and oil repellency to protect against the absorption of dangerous levels of water or oils or other flammable chemicals in gear.

If you have further questions, please contact Andrew Schwartz at Aschwartz@lionprotects.com or (937) 415-2913.

