

Summary - Fluorochemical Industry Conversion from C8 to C6 Chemistry

PFOA is an abbreviation for Perfluorooctanoic Acid. C8 telomer is a chemical compound that contains 8 carbon atoms and 17 fluorine atoms. Many water and oil repellent products used for long term protection of textiles are based on C8 telomers. In manufacturing a trace amount of PFOA can be generated as an unintended byproduct in C8-based repellent materials. Although GreenShield C8 products never contained PFOA, we are impacted by changes occurring in the fluorochemical industry.

In 2000, the U.S. Environmental Protection Agency (EPA) became concerned about data that indicated that PFOA is found in human blood in the general population. During the 90's it had become apparent that these materials had spread throughout the global environment and that they were accumulating in biological systems. Since then, the EPA and the industry have conducted studies, and collected and shared information regarding PFOA. In January 2006, the U.S. Environmental Protection Agency (EPA) approached the eight largest fluorocarbon producers and requested their participation in the 2010/15 PFOA Stewardship Program, and their commitment to reduce PFOA and related chemicals globally in both facility emissions and product content 95 percent by 2010, and 100 percent by 2015.

As a result of the EPA recommendation (not yet a regulation), all fluorochemical companies chose to stop manufacturing, using and selling Perfluorooctanoic Acid (PFOA) and C8 telomer-based water and oil repellent products by the end of 2012. In fact they are transitioning even earlier than the original target, so that getting C8-based materials is currently impossible.

The C6/C8 discussion is complex. Reducing PFOA makes sense. At the same time, moving from C8 to C6 may require using 50% more fluorochemical in similar formulations to get the same performance. The GreenShield team is focusing our research effort on improving the effectiveness of our C6 products and in many cases additional fluorochemical is not needed if the appropriate finishing conditions are used in manufacturing.