

TECHNICAL TUESDAYS

TOPIC: Banned Fluorocarbons & its Impacts

REF: REF: TT/ Jul 2014/ WK 2

What Is Fluorocarbon?

Fluorocarbons are chemical compounds that contain carbon-fluorine bonds.

The relatively low reactivity and high polarity of the carbon-fluorine bond imparts unique characteristics to fluorocarbons.

Fluorocarbons tend to be only slowly broken down in the environment and therefore many are considered persistent organic pollutants

Fluorocarbons are organic compounds consisting per fluorinated carbon chain. They tend to decrease the surface tension of the textiles after application on textiles.

What is the range of health issues that have been associated with Banned Fluorocarbons in human and animal studies?

Human Studies

- Damage to immune system in children
- Increased incidence of cancer associated with PFC pollution
- Compromised female fertility associated with PFC blood levels in women

Rat Studies

- Enlarged livers associated with PFC
- Low birth weight associated with PFC
- Reduced fertility associated with PFC



Banned Fluorocarbons Used in textiles & its Impacts:

Textiles finished using banned Fluorocarbon-based processes are believed to contain carcinogens and therefore certain fluorocarbon treatment is being phased out.

"C6" Fluorocarbon is often used as a substitute for the soon-to-be banned chemicals, but this too is also suspect, and may eventually also be banned. So-called "C8" fluorocarbon is chemically similar to certain known carcinogens, particularly PFOA.

C6 based fluorotelomers will degrade and biodegrade to PFC acids in the same way as C8 fluorotelomers. The ultimate biodegradation product, PFHxA, may be less dangerous to humans and the environment than PFOA.

All banned fluorocarbons are harmful. In fact, many scientists believe that C6 is much better than C8.

For those companies who utilize banned chemicals in their process technology, creating the impact on our Planet, and also the possible health hazard to the employees and customers, So we should join hands together to save the environment.

Wishing you a happy week ahead!

Technical Tuesdays is a knowledge sharing initiative by Resil Chemicals Private Limited

arc@resil.com | www.resil.com