

## SUSTAINABLE TEXTILES – PART IX

REF: TT/ JUNE 2022/ WK 4

### Chemical management in textile wet processing like dyeing and finishing

Chemical management is an important part of sustainability in the textiles and apparel industry. It is important because it is our duty to protect the planet and its resources from the long term and short term harmful chemical effects. Besides environmental effect, sustainability is also about social responsibility. The safe management of chemicals used in the processes, actively benefit the quality of the human health along with environment. The safety and quality of the people health is often at risk because of harmful chemicals used in the textile industry.

#### **WHAT IS CHEMICAL MANAGEMENT SYSTEM?**

A process that ensures proper compliance with environmental and safety policy.

It is the process by which all matters relating to chemicals from procurement to discharge are taken up for safe application and management.

#### **Steps that textile processing industry can take as a part of chemical management**

- Processing fabrics without the use of hazardous chemicals.
- Using chemical finishes which reduce laundering requirements.
- Following guidelines set out by industry standards and safe practices in respect of textile chemicals.

Some of the chemicals used in the textile industry are harmful to human health and the environment. Hence many of the textile chemicals are being phased out or prohibited. For e.g.

- C8 fluorocarbon based products which are used in water and oil repellent finishing agents. These products contain residues of PFOA or PFOS. PFOA and PFOS are carcinogenic.
- Formaldehyde containing chemicals such as easy-care finishing agent, binders for printing and coating, and after-fixing agents for dyeing and printing.
- Phthalate-based levelling agent.
- Aminoethylethanolamine based softeners.



Apart from restricting or prohibiting the chemicals, innovation is being done for safer alternatives.

Those will be better for human health and the environment. These products includes

- Softeners and wicking agents based on refined vegetable components
- Softeners and wicking agents from beeswax
- Fluorocarbon-free durable water repellents based on renewable feedstock chemistry

**GOOD TO KNOW**

PFOA and PFOS are organofluorine compounds.

PFOA stands for perfluorooctanoic acid while PFOS stands for perfluorooctanesulfonic acid.

Both are used as resistant to water and oils.

Have adverse on humans on exposure

Contaminates the environment due to the disposal in landfills of product that contain them.

- After-soaping agents based on special non-harmful pseudo cationic polymers.
- Rape seed oil-based Defoamers and deaerators

References:

1. <https://www.cattermoleconsulting.com/>
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3. <https://www.aatcc.org/>
4. <https://sourcingjournal.com/>
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.....To be continued.....

UNSCRAMBLE THE JUMBLE WORDS
SEEBXAW
ENTMGEAMNA
EEFTOCDKS
DREEFNI

Last week`s Answers: 1) NATURAL 2) TURMERIC 3) ONION 4) LOGWOOD

**Wishing you a great week ahead!**

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