

# Detergents and Cleaning Products, Their Sustainability and Future Trends

**DIRECTED BY**

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ACCREDITED  
COURSE

- Technology of Cleaning
- Cleaning Ingredients
- Formulation of Cleaning Products and Disinfectants
- Legislation
- Environmental, Green, and Sustainability Issues
- Future Trends

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## about the course

Like other industries, the cleaning products industry has had to adapt to the changes forced on it by the Covid-19 Pandemic. The sector has a unique role in ensuring society remains clean, healthy, and free from infections. Thus, our industry has suffered less than most. We will review how the industry has developed to its present status and how it is changing to meet these new challenges.

Consumers are becoming increasingly concerned about the sustainability of the substances they use, and this includes their cleaning products. Thus, we need to develop products based on plant-based ingredients, which are used in more environmentally friendly cleaning processes. Companies must use more sustainable technologies and develop environmentally friendly ingredients, or risk being left behind by their more innovative competitors. Meanwhile, Governments are imposing increasingly strict regulations on the composition of cleaning products. But so far these do not include sustainability criteria. NGOs have introduced strict sustainability criteria to allow products to display their "Green Labels".

This 12-hour intensive course will provide a broad, firm foundation in all aspects of the technology of cleaning products. It is designed to encourage new thinking which will challenge current concepts. Participants will be able to return to their workplace with new ideas to implement.

The training will commence with a discussion of the mechanisms of cleaning and foaming and will include a review of the Global Cleaning Products Industry that will provide attendees with a firm

foundation for the remainder of the course. Lectures will include topics such as the ingredients in cleaning products: what they are, what they do, how they work, and issues involved with their use.

The composition (formulation) of major types of cleaning products such as laundry granules, liquids, tablets and fabric softeners, dishwashing products, surface cleaners, disinfectants, and personal care products such as soaps, shampoos, shower gels, etc. (but not cosmetics) will be discussed.

Legislative aspects, environmental and sustainability issues, the use of green (natural) ingredients, and the future trends in cleaning products will also be addressed. The course will include opportunities for open interaction. Participants, who should already have a basic scientific understanding, are encouraged to bring their questions to the course for review and discussion.

Since this training is highly interactive, those attending the live training event must have a webcam on their computer as well as a microphone and speakers/headset in order to fully participate.

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## who should attend

This course is intended for professionals in the cleaning products and related industries, but will be especially valuable for:

- Professionals new to the industry
- Ingredient suppliers wanting to learn more about the use of their products
- SMEs considering entering the market with new products; entrepreneurs looking for opportunities
- Commercial and marketing personnel, and managers needing to understand the technology behind their products
- Product and Application Scientists
- Academics wanting to understand how the industry works
- Research scientists and engineers
- Manufacturers of cleaning products
- Users of cleaning products

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## learning objectives

**Upon completion of this course, you will be able to:**

- Describe the industry and understand how it operates
- Explain the technology behind the action of cleaning products
- Describe the major ingredients used in cleaning products how they are sourced, formulated and how they work
- Describe how cleaning products and disinfectants are designed to destroy infections
- Summarize the impact that cleaning products have on our environment
- Explain how the industry has adapted to past environmental issues and the changes it will need to make in the future to meet the environmental and sustainability demands placed on it by society
- List the Legislative issues that affect the industry
- Outline how future technology might impact the industry

The course will provide understanding to enable participants to develop new products that will meet their customers' needs.

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## course outline

### Review of Learning Objectives

#### Mechanism of Detergency, Wetting and Foaming

#### Important Cleaning Ingredients including:

- Surfactants
- Builders
- Bleaches
- Enzymes
- Fragrances
- Others

#### Composition of Cleaning Products

- Laundry products, powders, liquids, unit doses, soaps
- Dishwashing cleaners
- Surface Cleaners and Personnel Care products
- Disinfectants

#### Cleaning Around the World

- How washing is carried out in different regions

#### Industry Legislation

#### Introduction to Environmental Issues

- Green Ingredients and Sustainable Cleaning
- More sustainable washing Processes, minimizing the use of Energy and Water

#### To Conclude:

- A discussion around future trends

#### Question and Answer Session

#### Assessment Opportunity

Whenever possible we will carry out exercises to increase participants' understanding. This will include an exercise on formulation.

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## course instructor

Following an extensive technical career in the chemical industry, in 2000 **Dr. Peter Smallwood** founded Chemical Associates; a UK based independent technical and training consultancy, serving the chemical, polymer, and allied industries worldwide. His expertise in surface chemistry and surfactants has proved relevant to the manufacture of polymers and coatings and to the formulation of cleaning and antibacterial products. As a result, over the last 15 years, Chemical Associates has become increasingly involved with the detergents and cleaning ingredients industry. He has developed a novel range of concentrated cleaning products for packing into PVA water soluble sachets and a number of specialist disinfectants. Dr. Smallwood has published a number of reviews of the current and future prospects for the industry, has presented papers at international conferences, and is involved in the training of industry personnel.

Dr. Smallwood is a member of the RSC and ACS and has recently been appointed Visiting Professor to the Department of Chemistry at the University of Chester.

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## Accreditations



### **International Accreditors for Continuing Education and Training (IACET)**

Cobblestone has been approved as a CEU Accreditor by IACET and awards CEUs for participation in qualified courses. Cobblestone has demonstrated that it complies with the ANSI/IACET Standards and is authorized to offer IACET CEUs for its programs. CEUs will be awarded for participation in Cobblestone's courses at the rate of .1 CEU per contact hour upon successful completion of the entire course and 70% accuracy in the required Learners' Assessment. A minimum score of 80% is required for all courses within a Cobblestone Certification Program. This course offers a total of 12 contact hours, or 1.2 CEUs. For further information, visit [www.iacet.org](http://www.iacet.org)

### **The American Institute of Chemists (AIC)**

The National Certification Commission in Chemistry and Chemical Engineering was formed in 1977 to recognize practitioners who strive to maintain their professional competence through participation in continuing education. The program encourages various means by which practitioners can maintain and improve their skills. It also serves as a vehicle for formally recognizing educational programs and other professional related activities that are dedicated to advancing the chemical scientist's or engineer's current competence in his/her discipline.

This and many other CfPA courses offer training that may be helpful in obtaining required AIC recertification education units. A list of recommended courses can be found on <https://www.cfpa.com/Accreditation/AccreditationView/AIC>.

For more information, visit: [www.theaic.org](http://www.theaic.org)