COBBLESTONE

COURSE ID 3137

Aerosol Technology Basics

DIRECTED BY

Herberto Dutra – Senior Factory Engineering Manager – Nestle

90 MINUTE

ACCREDITED COURSE

- Industrial applications
- Propellants
- The aerosol can
- Aerosol can production lines
- Bag-In-Can (BIC) Products
- Quality control and typical defects

about the course

Aerosols are a unique product form, utilized in an array of industries, that require a thorough understanding of the technology before acceptable formulations can be developed for consumer use. While traditional aerosol products have been around for many years, recent developments in propellants, valve systems and packaging innovations have opened up opportunities for completely new product offerings.

This 90-minute accredited course will introduce the attendees to Aerosol Technology. It will cover the types of propellants, the components of an aerosol can, describe the aerosol can filling/crimping/sealing process, and cover the main Quality challenges that aerosol cans experience when it reaches the consumers.

Live interaction with the instructor enables dynamic discussions and immediate clarifications. To verify attendance and encourage active interaction, those participating in the live training are required to have their webcams on during the course. The use of microphones and speakers or headsets is also strongly recommended.

who should attend

The course will be beneficial to any professional involved in the manufacturing of aerosol cans for industries such as cosmetics, household products, food, pharmaceuticals, pesticides, specialty chemicals, paints, etc. The main audience should include (but not limited to) manufacturing and quality professionals, engineers, chemists, R&D scientists, etc.

learning objectives

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

- List the various applications of aerosol canned products.
- Explain the differences, limitations and advantages between various types of propellants.
- Describe the components of a commercial aerosol can and the function of each.
- Restate the sequence of operation and the technologies in an aerosol can production line.
- Describe the Bag-In-Can (BIC) Technology.
- Explain the main challenges in the aerosol production line.

course outline

Review of Learning Objectives

Introduction to aerosols

- Definition of aerosols
- What is the benefit for consumers to convert liquids into aerosols?

Industrial applications

- Cosmetics, pesticides, paints, household products, food, etc.

Propellants

- Types of propellants
- Pros and cons of each product.

The aerosol can

- Metal can, lid, valve, and tube.

Aerosol can production lines

- Can handling, valve and tubing dispensers, filling, crimping

Bag-In-Can (BIC) products

- Aerosols Vs. Foams

Quality control and typical defects

- Leakers
- The challenges around crimping.

Question and Answer Session

Assessment Opportunity

course instructor

Herberto Dutra, is a Mechanical Engineer with over three decades of experience in manufacturing including a background in aerosol can production lines. He has held engineering positions at Kraft Foods, Nestle, Bay Valley, and Sentient, including 20 years of hands-on experience in the design and operations of numerous processing lines. Mr. Dutra's expertise ranges from pilot plant scaling up, design and construction of process plants, day-to-day operation, troubleshooting, and optimization.

He holds a Bachelor's Degree in Mechanical Engineering from UERJ (Rio de Janeiro, Brazil), an MBA from Keller Graduate School and a Master's in Mechanical Engineering from Purdue University.

Mr. Dutra has written publications extensively and taught courses in Spray Drying, Powder Handling, Agglomeration, Liquids Handling, Cooking Processes, Plant Design, Packaging and many other programs developed for operations professionals, engineers, and scientists.

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 1.5 contact hours, or .2 CEUs. For further information, visit www.iacet.org