COURSE OUTLINE

This course will give students a basic understanding of scale-up and process variables so the first production batches can be manufactured more easily and with meaningful input on the part of the compounder. In the cosmetic industry it is imperative that new products get from the bench to manufacturing as quickly as possible. This is the job of the Process Development Engineer and the process is called scaleup. The talk will discuss the different aspects of scaleup: heat transfer, addition rates and energy input as it pertains to batch size and different equipment.

I. Scale Up Introduction

II. Cosmetic Processing Equipment
   A. Vessels
   B. Mixers
   C. High Shear Mixers
      Batch
      Inline
   D. Pumps

III. Scale Up Parameters and Variables
   A. Liquids-Emulsions-Emulsions/Solids
      Batch
      Heating/Cooling
      Mass Transfer
      Controlling Shear

IV. Procedure Requirements
   A. Terms
   B. Equipment List/Details/Controls
   C. Filling Concerns/Requirements

FEES

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About The Instructor

DAVID YACKO is Staff Vice President of Process Development in the Research and Development division of Estee Lauder Companies, Inc. which is one of the world’s leading cosmetic developers and manufacturers. He has been with Estee Lauder over 10 years. His department is responsible for worldwide scaleup for Estee Lauder Companies, Inc. He earned his BS degree in Chemical Engineering from Tri State University in Angola, Indiana. David has worked in the cosmetic industry for 28 years. He spent 18 years with Chesebrough-Ponds in both Research and Development (14 years) and Manufacturing (4 years).

-Course hours: 9:00 A.M. – 5:00 P.M.
-Registration fee includes all course materials, lunch, coffee & beverage breaks.
*Parking fees not included.
-Check the SCC website at www.scconline.org for hotel information.

-ALL CHECKS ARE TO BE PAID IN U.S. DOLLARS
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TOTAL ENCLOSED

NOTE: ALL CHECKS ARE TO BE PAID IN U.S. DOLLARS DRAWN ON A BANK WITH AN ADDRESS IN THE UNITED STATES AND MADE PAYABLE TO THE SOCIETY OF COSMETIC CHEMISTS.

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