

## MICROENCAPSULATION

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## INTRODUCTION

- ✓ **Microencapsulation** is a process by which very tiny droplets or particles of liquid or solid material are surrounded or coated with a continuous film of polymeric material.
- ✓ The product obtained by this process is called as micro particles, microcapsules.
- ✓ Particles having diameter between 3 - 800 $\mu\text{m}$  are known as micro particles or microcapsules or microspheres.
- ✓ Particles larger than 1000 $\mu\text{m}$  are known as Macroparticles .

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## **Fundamental Considerations**

The realization of the potential that microencapsulation offers involves a basic understanding of the general properties of microcapsules, such as the nature of the core and coating materials, the stability and release characteristics of the coated materials, and the microencapsulation methods. One should note, however, that the method employed in the manufacture of microcapsules may well result in products of varied composition, quality, and utility.

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## ***Core Material***

The composition of the core material can be varied, as the liquid core can include dispersed and/or dissolved material. The solid core can be a mixture of active constituents, stabilizers, diluents, excipients, and release-rate retardants or accelerators. The ability to vary the core material composition provides definite flexibility and utilization of this characteristic often allows effectual design and development of the desired microcapsule properties.

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