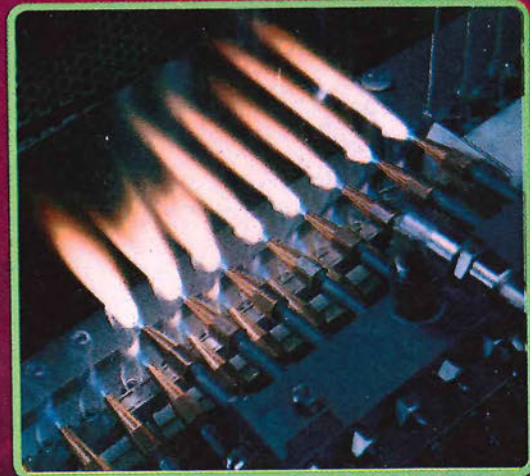


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PHARMACEUTICAL TECHNOLOGY

Volume I



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PHARMACEUTICAL TECHNOLOGY Volume I

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CONTENTS AT A GLANCE

1. LIQUID DOSAGE FORMS

1. Introduction
2. Formulations of Liquids
3. Manufacturing of Liquid Products
4. Packaging of Liquid Oral Products
5. Quality Assurance and Process Validation of Liquid Orals
6. Manufacturing Challenges with Liquid Orals

References

CHAPTER

1

LIQUID DOSAGE FORMS

1. INTRODUCTION

Compared to conventional tablets and capsules, oral liquid dosage forms including solutions, syrups, suspensions, elixirs, and concentrates offer unique advantages to many patients. For example, liquids may provide better patient compliance for those with swallowing difficulties and better dosage control versus a fixed tablet dose. However, there are also a number of "challenges" surrounding the formulation and development of these forms. Hence, liquid dosage forms are generally formulated for use in geriatric and pediatric patients. But, this section of patients have been regarded as a small fraction of the overall population, pharmaceutical companies often develop oral liquid formulations out of necessity rather than responding to a patient need. However, there are potential advantages of oral liquid dosage forms, such as no dissolution time and rapid absorption from the stomach/intestines compared to tablets, which may be an important factor for pain-relieving drugs. Inherent in this benefit is the risk of reaching peak plasma levels too fast, which could be harmful. Finally, as the excipient technology advances, a controlled release profile in liquid dosage forms will likely become readily available.

Oral liquid dosage – forms include solutions, syrups, suspensions, elixirs, and concentrates that offer better patient compliance for those with swallowing difficulties and better dosage control versus a fixed tablet dose. However, there are also a number of "challenges" in the formulation and development of these dosage forms.

It is the effective use of excipients, which allows formulators overcome these challenges.

2. FORMULATIONS OF LIQUIDS¹

Oral liquids are formulated as solutions, suspensions and emulsions depending on the nature of the active ingredient particularly solubility and stability. They are also designed as ready to use liquids and powders for reconstitution into liquid orals like syrups, solutions, suspensions and emulsions. Liquid formulation needs various excipients including

Pharmaceutically, Oral liquids are formulated as solutions, suspensions and emulsions depending on the nature of the active ingredient particularly solubility and stability.

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