UNIVERSITI TEKNOLOGI MARA

INVESTIGATION ON CONTACT ANGLE DURING HYDROTROPIC SOLUBILIZATION OF THE DRUG KETOCONAZOLE AND GRISEOFULVIN

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TABLE OF CONTENTS

ABSTRACT

The aqueous solubility of drug is often a limiting factor while developing the most desirable dosage form. Among the several techniques of solubility enhancement, hydrotropic solubilization is considered as one of the safest method. Many work highlighted the effect of solubility enhancers in improving solubility of the drug, but no detailed explanation about the molecular processes during the improving phenomenon. The present study deals with experiments so to highlight solute solvent interaction and related modifications in case of the presence of hydrotropic agents. Contact angle was carried out in order to obtain valuable information regarding the solute solvent interactions.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Solubility phenomenon is an area of particular importance. Increasing the water solubility of insoluble or slightly soluble compound is of major concern for pharmaceutical researchers. The aqueous solubility of drug is often a limiting factor in developing most desirable dosage form. The techniques generally employed to enhance the solubility of poorly water soluble drugs are use of buffering agents and soluble salts, use of surface active agent (micellar solubilization), hydrates and solvate, polymorphism, complexation, hydrotropic solubilization and conventional trituration and grinding. Among these techniques hydrotrope solubilization is considered as the safest method of solubilization. Aqueous solubilization of insoluble drugs can be achieved by addition of hydrotropic agents (Balaji et al., 2007).