CONTENTS

	INTRODUCTION	
1.	General Considerations	3
	PART I	
	PROCESSES FOR SYNTHESIZING AND MANUFACTURING	
	SURFACE ACTIVE AGENTS	
	1. ANIONIC SURFACE ACTIVE AGENTS	
2.	Carboxy Acids	25
3.	Sulfuric Esters	44
4.	Alkane Sulfonates	82
5.	Alkyl Aromatic Sulfonates	111
6.	Miscellaneous Anionic Hydrophilic Groups	141
	2. CATIONIC, NON-IONIC, AND MISSSCELLANEOUS SURFACE ACTIVE AGENTS	
7.	Cationic Surface Active Agents	151
8.	Non-ionic Surface Active Agents	202
9.	Ampholytic Surface Active Agents	218
10.	Special Compositions and Mixtures	229
	PART II	
	THE PHYSICAL CHEMISTRY OF SURFACE ACTIVE AGENTS	
	IN THEORY AND PRACTICE	
11.	Introduction	241
12.	Surface and Interfacial Relationships of Pure Liquids	243
13.	Surface Properties of Solutions	272

8.	Non-ionic Surface Active Agents	202
9.	Ampholytic Surface Active Agents	218
10.	Special Compositions and Mixtures	229

11.	Introduction	241
12.	Surface and Interfacial Relationships of Pure Liquids	243
13.	Surface Properties of Solutions	272
14.	Bulk Properties of Surface Active Solutions	289
15.	Gross Effects and Technical Evaluation of Surface Active Agents	316
16.	Relationship of Surface Activity to Chemical Constitution	385

PART III PRACTICAL APPLICATIONS OF SURFACE ACTIVE AGENTS

17.	General Considerations and Classification of Uses	397
18.	Applications in the Textile Industry	403
19.	Cosmetics and Personal Use	440
20.	Pharmaceutical, Germicidal, Fungicidal, and Disinfectant Uses	452
21.	Household, Laundering, Dry Cleaning, and General Cleaning uses	459
22.	Metal Technology	465
23.	Paints, Lacquers, Inks, and Pigments	473
24.	Leather Technology	477
25.	Petroleum and Lubricants	481
26.	Ore Flotation	489
27.	Other Industries Utilizing a Variety of Surface Active Agents	495
28.	Miscellaneous Uses of Surface Active Agents	510
Author Index		519
Subject Index		541