

Colin A. Houston & Associates, Inc.
announces a new market study entitled

SURFACTANTS FOR EMERGING MARKETS IN ASIA/PACIFIC, 1996-2010

Surfactant consumption in Greater China, Southeast Asia, India and Pakistan is estimated to have been over 3.5 million tons in 1996. Although the Asian crisis has temporarily slowed the growth in this consumption, it is expected to increase as economic activity returns to this region.

The household sector is responsible for almost 78 percent of all surfactants consumed in this region. Industrial applications dominated by the textile industry, and the smaller but faster growing personal care markets, comprise the other major markets covered in this study.

These dynamic markets are the subject of a newly published market research study by Colin A. Houston & Associates, Inc. (CAHA), entitled *Surfactants For Emerging Markets in Asia/Pacific, 1996-2010*. This report follows CAHA's previous multiclient study *Asia/Pacific Surfactants, 1990-2005* by five years. It details changes by country and focuses on the growth market areas.

This report provides up-to-date, accurate data, analyzed and clearly presented to help unlock development problems. The report was completed in March 1999. The following pages contain a description of the study and the complete Table of Contents.

CONTENTS

<i>Description of the Study</i>	2
<i>Table of Contents</i>	4
<i>List of Tables</i>	14
<i>List of Figures</i>	27
<i>Sample Tables</i>	28
<i>Qualifications and Personnel</i>	33
<i>Cost and Delivery</i>	36
<i>How to Subscribe</i>	36
<i>Contract</i>	37

DESCRIPTION OF THE STUDY

Surfactants For Emerging Markets in Asia/Pacific, 1996-2010 analyzes all the factors affecting supply and demand for surfactant intermediates and surfactants for individual countries. The study covers ten countries as shown below and identifies key trends affecting the markets in them. The developed markets of the Northern Pacific, Japan and Korea, are not included.

Countries Covered

China	Pakistan
Taiwan	Philippines
India	Singapore
Indonesia	Thailand
Malaysia	Vietnam

The following is an overview of the contents of each chapter of the study.

Introduction

This Introductory chapter provides a foundation for the report by giving economic and social statistics on the countries, explanations of the industries and major trends.

Environmental Issues

Environmental Issues addresses some main areas of concern, including biodegradability, toxicity, eutrophication, and life cycle analysis. The level of attention and sophistication of environmental consciousness varies from country to country and in Asia there are societies with high levels of environmental awareness. This chapter explains the environmental issues of importance in the region and their current status, and summarizes the legislative situation. Further details for individual countries are included in the country survey section.

Surfactant Intermediates

Surfactant Intermediates assesses the present supply/demand situation of the major intermediates. They are global commodities but the regional supply picture is an important driver in the competitive surfactant market. The technical and commercial stories for each of the major intermediates are reviewed for the region. Included are the details covering technology, producers and capacities,

production, market trends, and consumption.

Major Organic Surfactants

This chapter covers the key surfactant volumes and market trends including a new section on specialty and other surfactants. It provides plant location and capacity data for ethoxylators and sulfators/sulfonators, by country. Surfactant producer capabilities and surfactant consumption are covered in this section, and major producers are profiled.

End Market Overviews and Consumption by Region

This chapter overviews provides backgrounds on the diverse product technologies present in Asian markets. By addressing technologies separately, discussions on a country basis are focused on the important and unique features of the countries. This chapter provides the comparative view of surfactant consumption by end market and by country to identify progress and explain the relative importance of markets. End markets covered are listed in the Table of Contents.

Country Surveys

Country surveys comprise the core of this report. Each country survey is presented as a stand-alone report on the country covering environmental issues, the intermediates picture, surfactants and the end markets. End market coverage includes the major surfactant consuming uses and provides data on end product consumption, surfactant customers, market share and other relevant data. These provide a complete picture of surfactant use in the countries, market by market.

Tabulations

This chapter brings together the surfactant consumption figures given throughout the report and presents data by end use and by surfactant. The Appendix contains a list of abbreviations and a tabulation of the major companies contacted during the course of the project.

TABLE OF CONTENTS

	<u>PAGE</u>
PREFACE	
EXECUTIVE SUMMARY	iv
TABLE OF CONTENTS	xxxii
List of Tables	
List of Figures	
I. INTRODUCTION	I-1 - I-11
Surfactant Industry	
Pathways for Surfactant Manufacture	
Economic Outlook	
Effects on the Chemical Industry	
II. ENVIRONMENTAL ISSUES	II-1 - II-13
Introduction	
Biodegradability	
Branched Alkylbenzene Sulfonates (BABS)	
Linear Alkylbenzene Sulfonates (LABS)	
Alkylphenol Ethoxylates (APE)	
Eutrophication and the Phosphate Issue	
Other Pollution Issues	
Packaging Waste	
Other Toxicity Issues	
Hazards Associated with Bulk Shipments of EO	
Poison Hazards	
III. SURFACTANT INTERMEDIATES	III-1 - III-40
Introduction	
Alkylbenzenes	
Introduction	
Linear Alkylbenzene (LAB)	
Branched Alkylbenzene (BAB)	
Technology	
Olefins	
Alkyl Chlorides	
LAB Compositions	
Producers and Capacities	
China	
Taiwan	
India	
Indonesia	
Philippines	
Vietnam	

Table of Contents (continued)

PAGE

Production
Market Trends and Issues
End Use Markets
Prices
Detergent Alcohols
Introduction
Technology
Oleochemical Alcohol Manufacturing Processes
Petrochemical-Based Alcohol Manufacturing Processes
Products
Producers and Capacities
China
Taiwan
India
Indonesia
Malaysia
Philippines
Production
Market Trends and Issues
End Use Markets
Prices
Alkylphenols
Introduction
Technology
Producers and Capacities
Taiwan
China
India
Production
Market Trends and Issues
End Use Markets
Prices
Ethylene Oxide
Introduction
Technology
Producers and Capacities
China
Taiwan
Singapore
Malaysia
India
Indonesia
Production
Market Trends and Issues
End Use Markets
Prices

IV. MAJOR SURFACTANTS
Introduction
Sulfation/Sulfonation

IV-1 - IV-50

Table of Contents (continued)

PAGE

Introduction	
Technology	
Producers and Capacities	
Ethoxylation	
Introduction	
Technology	
Producers and Capacities	
Specialty and Other Surfactants Overview	
Alkanolamides	
Producers	
Utilization	
Consumption	
Quaternary Ammonium Compounds	
Producers	
Utilization	
Consumption	
Betaines	
Producers	
Utilization	
Consumption	
Surfactant Producer Profiles	
Albright & Wilson	
Henkel KGaA	
Kao Corporation	
Lion Corporation	
Salim Corporation	
Alkylbenzene Sulfonates	
Technology	
Utilization	
Consumption	
Alcohol Sulfates	
Technology	
Utilization	
Personal Care	
Household	
Industrial/I&I	
Consumption	
Alcohol Ethoxysulfates	
Technology	
Utilization	
Personal Care	
Household	
Industrial/I&I	
Consumption	
Alkylphenol Ethoxylates	
Technology	
Utilization	
Consumption	
Alcohol Ethoxylates	
Technology	

Table of Contents (continued)

PAGE

Utilization	
Consumption	
V. END MARKET OVERVIEWS AND CONSUMPTION BY REGION	V-1 - V-185
Introduction	
Household Products	
Laundry Soaps and Detergents	
Heavy Duty Powders	
Heavy Duty Liquids	
Laundry Detergent Bars and Pastes	
Surfactant Consumption	
Laundry Soap Bars	
Detergent Builder Review	
Toilet Soap	
Dish Detergents	
Light Duty Liquids	
Dish Pastes	
Fabric Softeners	
Surfactant Technology	
Surfactant Consumption	
Other Household Products	
Personal Care Products	
Hair Shampoos	
Hair Shampoo Additives	
Surfactant Technology	
Surfactant Consumption	
Cream Rinses/Conditioners	
Surfactant Technology	
Surfactant Consumption	
Toothpastes	
Surfactant Technology	
Surfactant Consumption	
Other Personal Care Products	
Industrial End Uses	
Agriculture	
Market Overview	
Surfactant Technology	
Surfactant Consumption	
Industrial and Institutional Cleaning Products	
Market Overview	
Commercial and Institutional Laundries	
Hard Surface Cleaners	
Commercial Dishwashing	
Surfactant Consumption Summary	
Paints and Coatings	
Market Overview	
Paint Technology	
Surfactant Technology	
Pulp and Paper	
Market Overview	

Table of Contents (continued)

PAGE

	Surfactant Technology	
	Surfactant Consumption	
	Plastics and Elastomers	
	Market Overview	
	Polymerization Technology	
	Surfactant Technology	
	Surfactant Consumption	
	Textiles	
	Market Overview	
	Surfactant Technology	
	Surfactant Consumption	
VI.	COUNTRY SURVEYS	VI-1 - VI-462
	China	
	Introduction	
	Phase I: Pre-open Door Policy of 1978	
	Phase II: Introduction of Open Door Policy, 1978-1991	
	Phase III: Speedy and Sustained Growth, 1992-1996	
	Phase IV: A Growing Asian Power, 1997 to Present	
	Industry Organization	
	Environmental Overview	
	Eutrophication	
	Biodegradability	
	Intermediate and Surfactant Producers	
	Linear Alkylbenzene	
	Detergent Alcohol	
	Alkylphenol	
	Ethylene Oxide	
	Sulfation/Sulfonation	
	Ethoxylation	
	Summary of Surfactant End Markets	
	Household End Markets and Surfactants	
	Laundry Products	
	Dish Detergents	
	Fabric Softeners	
	Other Household Products	
	Personal Care End Markets and Surfactants	
	Hair Shampoos	
	Cream Rinse/Conditioners	
	Toothpastes	
	Other Personal Care Products	
	Industrial End Markets and Surfactants	
	Introduction	
	Agriculture	
	I&I Cleaners	
	Paints and Coatings	
	Pulp and Paper	
	Plastics and Elastomers	
	Textiles	
	Taiwan	

Table of Contents (continued)

PAGE

Introduction	
Environmental Overview	
Eutrophication Issues	
Biodegradability Standards	
Intermediate and Surfactant Producers	
Alkylbenzene	
Detergent Alcohol	
Alkylphenol	
Ethylene Oxide	
Sulfators/Sulfonators	
Ethoxylators	
Summary of Surfactant End Markets	
Household End Markets and Surfactants	
Laundry Products	
Dish Detergents	
Fabric Softeners	
Other Household Products	
Personal Care End Markets and Surfactants	
Hair Shampoo	
Cream Rinse/Conditioners	
Toothpastes	
Other Personal Care Products	
Industrial End Markets and Surfactants	
Agriculture	
I&I Cleaners	
Paints and Coatings	
Pulp and Paper	
Plastics and Elastomers	
Textiles	
India	
Introduction	
Environmental Overview	
Eutrophication Issues	
Biodegradability Standards	
Intermediate and Surfactant Producers	
Linear Alkylbenzene	
Detergent Alcohol	
Alkylphenol	
Ethylene Oxide	
Sulfation/Sulfonation	
Ethoxylation	
Summary of Surfactant End Markets	
Household End Markets and Surfactants	
Laundry Products	
Dishwashing Detergents	
Fabric Softeners	
Other Household Products	
Personal Care End Markets and Surfactants	
Introduction	
Industrial End Markets and Surfactants	

Table of Contents (continued)

PAGE

	Introduction	
	Agriculture	
	I&I Cleaners	
	Paints and Coatings	
	Pulp and Paper	
	Plastics and Elastomers	
	Textiles	
Pakistan		
	Introduction	
	Environmental Overview	
	Eutrophication Issues	
	Biodegradability Standards	
	Intermediate and Surfactant Producers	
	Sulfators	
	Ethoxylation	
	Summary of Surfactant End Markets	
	Household End Markets and Surfactants	
	Laundry Products	
	Other Household Products	
	Personal Care End Markets and Surfactants	
	Industrial End Markets and Surfactants	
	Agricultural Chemicals	
	I&I Cleaners	
	Paints and Coatings	
	Pulp and Paper	
	Plastics and Elastomers	
	Textiles	
Indonesia		
	Introduction	
	Environmental Overview	
	Intermediate and Surfactant Producers	
	Surfactant Producers	
	Summary of Surfactant End Markets	
	Household End Markets and Surfactants	
	Laundry Products	
	Toilet Soap	
	Dish Detergents	
	Fabric Softeners	
	Other Household Products	
	Personal Care End Markets and Surfactants	
	Hair Shampoos	
	Cream Rinses/Conditioners	
	Toothpastes	
	Other Personal Care Products	
	Industrial End Markets and Surfactants	
	Agriculture	
	I&I Cleaners	
	Paints and Coatings	
	Pulp and Paper	
	Plastics and Elastomers	

Table of Contents (continued)

PAGE

	Textiles	
	Other Industrial End Uses	
Malaysia		
	Introduction	
	Environmental Overview	
	Intermediate and Surfactant Producers	
	Sulfation/Sulfonation	
	Ethoxylation	
	Summary of Surfactant End Markets	
	Household End Markets and Surfactants	
	Laundry Products	
	Dish Detergents	
	Fabric Softeners	
	Other Household Products	
	Personal Care End Markets and Surfactants	
	Hair Shampoos	
	Cream Rinses/Conditioners	
	Toothpastes	
	Other Personal Care Products	
	Industrial End Markets and Surfactants	
	Agriculture	
	I&I Cleaners	
	Paints and Coatings	
	Pulp and Paper	
	Plastics and Elastomers	
	Textiles	
Philippines		
	Introduction	
	Population	
	Economic Outlook	
	Environmental Overview	
	Intermediate and Surfactant Producers	
	Summary of Surfactant End Markets	
	Household End Markets and Surfactants	
	Laundry Products	
	Dish Detergents	
	Fabric Softeners	
	Other Household Products	
	Personal Care End Markets and Surfactants	
	Hair Shampoo	
	Cream Rinse/Conditioners	
	Toothpastes	
	Other Personal Care Products	
	Industrial End Markets and Surfactants	
	Agriculture	
	I&I Cleaners	
	Paints and Coatings	
	Pulp and Paper	
	Plastics and Elastomers	
	Textiles	

Table of Contents (continued)

PAGE

Singapore

Introduction
Environmental Overview
Intermediate and Surfactant Producers
Summary of Surfactant End Markets
Household End Markets and Surfactants
 Laundry Products
 Dish Detergents
 Other Household Products
Personal Care End Markets and Surfactants
 Hair Shampoo
 Toothpastes
 Other Personal Care Products
Industrial End Markets and Surfactants
 I&I Cleaners
 Paints and Coatings
 Pulp and Paper
 Plastics and Elastomers
 Textiles

Thailand

Introduction
Environmental Overview
Intermediate and Surfactant Producers
Summary of Surfactant End Markets
Household End Markets and Surfactants
 Laundry Products
 Dish Detergents
 Fabric Softeners
 Other Household Products
Personal Care End Markets and Surfactants
 Hair Shampoos
 Cream Rinses/Conditioners
 Toothpastes
 Other Personal Care Products
Industrial End Markets and Surfactants
 Agriculture
I&I Cleaners
 Paints and Coatings
 Pulp and Paper
 Plastics and Elastomers
 Textiles

Vietnam

Introduction
Environmental Overview
Intermediate and Surfactant Producers
 Sulfation/Sulfonation
Summary of Surfactant End Markets
Household End Markets and Surfactants
 Laundry Products
Dish Detergents

Table of Contents (continued)

		<u>PAGE</u>
	Toilet Soap	
	Other Household Products	
	Personal Care End Markets and Surfactants	
	Hair Shampoos	
	Cream Rinse/Conditioners	
	Toothpastes	
	Other Personal Care Products	
	Industrial End Markets and Surfactants	
	Introduction	
	Agriculture	
	I&I Cleaners	
	Paints and Coatings	
	Pulp and Paper	
	Plastics and Elastomers	
	Textiles	
VII.	TABULATIONS	VII-1 - VII-28
VIII.	APPENDIX	VIII-1 - VIII-7
	List of Abbreviations	
	List of Contacts	

LIST OF TABLES

<u>TABLE</u>		<u>PAGE</u>
1	Summary of Surfactant Consumption by Type, 1992-2010	
2	Development of Surfactant Intermediate Capacity, 1992 and 1998	
3	Surfactant Consumption by End Market, 1992-2010	
4	Household Surfactant Consumption by Type	
5	Household Product Consumption Summary by Type, 1992-2010	
6	Selected Personal Care Product Consumption, 1992-2010	
7	Personal Care Products Consumption by Country, 1992-2010	
8	Surfactant Consumption in Personal Care Products, 1992-2010	
9	Industrial Surfactant Consumption by End Use, 1992-2010	
10	Industrial Surfactant Consumption by Type, 1992-2010	
11	China - Surfactant and Surfactant Intermediate Production Capacities, 1998	
12	China - Surfactant Consumption in Major End Use Markets, 1992-2010	
13	Taiwan - Summary of Surfactant Consumption by End Use, 1992-2010	
14	India - Summary of Surfactant Consumption by End Use, 1992-2010	
15	Pakistan - Summary of Surfactant Consumption by End Use, 1992-2010	
16	Indonesia - Summary of Surfactant Consumption by End Use, 1992-2010	
17	Malaysia - Summary of Surfactant Consumption by End Use, 1992-2010	
18	Philippines - Summary of Surfactant Consumption by End Use, 1992-2010	
19	Singapore - Summary of Surfactant Consumption by End Use, 1992-2010	
20	Thailand - Summary of Surfactant Consumption by End Use, 1992-2010	
21	Vietnam - Summary of Surfactant Consumption by End Use, 1992-2010	
I-1	Level of Development in Selected Countries	
I-2	Economic Statistics, 1997	
I-3	Average Currency Exchange Rates with the U.S. Dollar, 1996-1999	
II-1	Profile of Environmental Degradation	
III-1	Typical Linear Alkylbenzene Compositions	
III-2	Alkylbenzene Producers and Capacities, 1998	
III-3	Alkylbenzene Production by Type, 1992 and 1997	
III-4	Typical Alcohol Composition from Whole Coconut Methyl Esters	
III-5	Detergent-Range Oleochemical- and Petrochemical-Based Alcohol (C ₁₂₊) Producers and Capacities, 1998	
III-6	Oleochemical and Petrochemical-Based Detergent-Range Alcohol Production, 1992-1998	
III-7	Alcohol Consumption by Surfactant, 1992-2010	
III-8	Alkylphenol Producers and Capacities, 1998	
III-9	Alkylphenol Production, 1992 and 1997	
III-10	Ethylene Oxide Producers and Capacities, 1998	
IV-1	Major Sulfators/Sulfonators and Capacities, 1998	
IV-2	Major Ethoxylators and Capacities, 1998	
IV-3	Summary of Performance and Other Surfactants by Application Area, 1998	
IV-4	Alkanolamide Producers by Country, 1998	

List of Tables (continued)

<u>Table</u>		<u>Page</u>
IV-5	Consumption of Alkanolamides by End Use, 1992-2010	
IV-6	Quaternary Ammonium Compound Producers by Country, 1998	
IV-7	Consumption of Quaternary Ammonium Compounds by End Use, 1992-2010	
IV-8	Betaine Producers by Country, 1998	
IV-9	Consumption of Betaines by End Use, 1992-2010	
IV-10	Albright & Wilson - Total Sales, 1996 and 1997	
IV-11	Albright & Wilson - Surfactant Plants in Asia/Pacific, 1997	
IV-12	Henkel - Total Sales, 1996 and 1997	
IV-13	Henkel - Surfactant Plants in Asia/Pacific, 1998	
IV-14	Kao - Total Sales, 1996-1998	
IV-15	Kao - Detergent-Range Alcohols Plants, 1998	
IV-16	Kao - Surfactant Plants in Asia/Pacific, 1998	
IV-17	Lion - Total Sales, 1996 and 1997	
IV-18	Lion - Surfactant Plants in Asia/Pacific, 1998	
IV-19	Salim - Surfactant Intermediate Plants, 1998	
IV-20	Salim - Surfactant Plants In Asia/Pacific, 1998	
IV-21	Consumption of Branched Alkylbenzene Sulfonates by End Use, 1992-2010	
IV-22	Consumption of Branched Alkylbenzene Sulfonates by Country, 1992-2010	
IV-23	Consumption of Linear Alkylbenzene Sulfonates by End Use, 1992-2010	
IV-24	Consumption of Linear Alkylbenzene Sulfonates by Country, 1992-2010	
IV-25	Consumption of Alcohol Sulfates by End Use, 1992-2010	
IV-26	Consumption of Alcohol Sulfates by Country, 1992-2010	
IV-27	Consumption of Alcohol Ethoxysulfates by End Use, 1992-2010	
IV-28	Consumption of Alcohol Ethoxysulfates by Country, 1992-2010	
IV-29	Consumption of Alkylphenol Ethoxylates by End Use, 1992-2010	
IV-30	Consumption of Alkylphenol Ethoxylates by Country, 1992-2010	
IV-31	Consumption of Alcohol Ethoxylates by End Use, 1992-2010	
IV-32	Consumption of Alcohol Ethoxylates by Country, 1992-2010	
V-1	Surfactant Consumption by End Market, 1992-2010	
V-2	Household Product Consumption Summary by Type, 1992-2010	
V-3	Consumption of Household Products by Country and Type, 1997	
V-4	Consumption of Household Products by Country, 1992-2010	
V-5	Total Household Surfactant Consumption, 1992-2010	
V-6	Laundry Product Consumption by Country and Type, 1992-2010	
V-7	Consumption of Conventional Powders by Country, 1992-2010	
V-8	Consumption of Compact Powders by Country, 1992-2010	
V-9	Consumption of Heavy Duty Laundry Liquids by Country, 1992-2010	
V-10	Consumption of Laundry Detergent Bars by Country, 1992-2010	
V-11	Consumption of Laundry Pastes by Country, 1992-2010	
V-12	Sample Asian Detergent Bar Formula	
V-13	Typical Asian Detergent Paste Formula	
V-14	Surfactant Consumption in Laundry Products by Country and Surfactant, 1992-2010	
V-15	Consumption of Laundry Soap Bars by Country, 1992-2010	
V-16	STPP Producers and Capacities, 1997	
V-17	Zeolite Producers and Capacities, 1996	
V-18	Phosphate and Zeolite Consumption in Detergent Products by Country, 1997	
V-19	Consumption of Toilet Soap by Country, 1992-2010	
V-20	Consumption of Dish Detergents by Country, 1992-2010	
V-21	Surfactant Consumption in Dish Detergents by Country and Surfactant, 1992-2010	

List of Tables (continued)

<u>Table</u>	<u>Page</u>
V-22	Consumption of Fabric Softeners by Country, 1992-2010
V-23	Surfactant Consumption of Fabric Softeners by Country and Surfactant, 1992-2010
V-24	Consumption of Other Household Products, 1992-2010
V-25	Surfactant Consumption in Other Household Products by Country and Surfactant, 1992-2010
V-26	Selected Personal Care Product Consumption, 1992-2010
V-27	Personal Care Products Consumption by Country, 1992-2010
V-28	Total Surfactant Consumption in Personal Care Products by End Use, 1992-2010
V-29	Total Surfactant Consumption in Personal Care Products by Type, 1992-2010
V-30	Hair Shampoo Consumption by Country, 1992-2010
V-31	Hair Shampoo Consumption Per Capita, 1997
V-32	Typical Clean Hair Shampoo Formulation
V-33	Typical Lotion Hair Shampoo Formulation
V-34	Typical Paste Hair Shampoo Formulation
V-35	Typical Gel Shampoo Formulation
V-36	Surfactant Consumption in Hair Shampoo by Country, 1992-2010
V-37	Cream Rinse Consumption by Country, 1992-2010
V-38	Surfactant Consumption in Cream Rinse by Country, 1992-2010
V-39	Toothpaste Consumption by Country, 1992-2010
V-40	Surfactant Consumption of Toothpaste by Country and Surfactant, 1992-2010
V-41	Other Personal Care Products Consumption by Country, 1992-2010
V-42	Surfactant Consumption in Other Personal Care Products by Country, 1992-2010
V-43	Industrial Surfactant Consumption by End Use, 1992-2010
V-44	Industrial Surfactant Consumption by Country, 1992-2010
V-45	Total Industrial Surfactant Consumption, 1992-2010
V-46	Production of Pesticides by Country, 1992-2010
V-47	Surfactant Consumption in Agricultural Chemicals by Country, 1992-2010
V-48	I&I Cleaning Markets by Country, 1992-2010
V-49	I&I Cleaning Markets by End Use, 1992-2010
V-50	Surfactant Consumption in Commercial Laundry Products, 1992-2010
V-51	Surfactant Consumption in Hard Surface Cleaners, 1992-2010
V-52	Surfactant Consumption in I&I Dish Detergents, 1992-2010
V-53	Surfactant Consumption in I&I Cleaners by Country, 1992-2010
V-54	Surfactant Consumption in I&I Cleaners by Type, 1992-2010
V-55	Division of the Paint Industry by Type, 1992-2010
V-56	Asia/Pacific - Production of Paint, 1992-2010
V-57	Surfactant Consumption in Paints and Coatings, 1992-2010
V-58	Asia/Pacific - Pulp, Paper and Board Capacities by Country, 1996
V-59	Asia/Pacific - Pulp, Paper and Board Production by Country, 1996
V-60	Pulp, Paper and Board Production in the Selected Countries, 1992-2010
V-61	Production of Pulp by Type in Selected Countries, 1996
V-62	Surfactant Consumption in Pulp and Papermaking, 1992-2010
V-63	Production of Commodity Plastics by Type, 1992-2010
V-64	Polymers and Elastomers Produced by Emulsion Polymerization
V-65	Major Surfactant Usage in Emulsion Polymerization, by Polymer Type
V-66	Surfactant Consumption in Emulsion Polymerization of Plastics and Elastomers by Type, 1992-2010
V-67	Surfactant Consumption in Plastics and Elastomers by Country, 1992-2010
V-68	Cotton Fiber Production by Country, 1992-2010
V-69	Manmade Fiber Production by Country, 1992-2010

List of Tables (continued)

<u>Table</u>		<u>Page</u>
V-70	Surfactant Consumption in the Textile Industry by Process Step, 1996 and 2010	
V-71	Surfactant Consumption in the Textile Industry by Country, 1996 and 2010	
V-72	Surfactant Consumption in Textiles by Type, 1992-2010	
VI-1	Summary of Surfactant Consumption by Type, 1992-2010	
VI-2	Summary of Surfactant Consumption by Country, 1992-2010	
VI-3	China - Major Surfactant Intermediate Producers and Capacities, 1998	
VI-4	China - Future Detergent Alcohol Plants by Producer and Capacity, 1998	
VI-5	China - Major Nonylphenol Producers and Capacities, 1998	
VI-6	China - Future Nonylphenol Plants by Producer, Location and Capacity, 1998	
VI-7	China - Major Ethylene Oxide Producers and Capacities, 1998	
VI-8	China - Major Sulfators/Sulfonators and Capacities, 1998	
VI-9	China - Planned and Future Sulfation/Sulfonation Plants, 1998	
VI-10	China - Major Ethoxylators and Capacities, 1998	
VI-11	China - Summary of Surfactant Consumption by End Use, 1992-2010	
VI-12	China - Summary of Surfactant Consumption by Type, 1992-2010	
VI-13	China - Household Product Consumption, 1992-2010	
VI-14	China - Laundry Product Structure of Production, 1997 and 2010	
VI-15	China - Major Laundry Powder Manufacturers and Their Local Production, Sales and Market Share, 1997	
VI-16	China - Surfactant Consumption in Laundry Products, 1992-2010	
VI-17	China - Major Dish Detergent Producers, Production and Market Share, 1997	
VI-18	China - Surfactant Consumption in Dishwashing Detergents, 1992-2010	
VI-19	China - Surfactant Consumption in Fabric Softeners, 1992-2010	
VI-20	China - Surfactant Consumption in Other Household Products, 1992-2010	
VI-21	China - Major Personal Care Joint Ventures, 1982-1996	
VI-22	China - Personal Care Product Consumption, 1992-2010	
VI-23	China - Hair Shampoo Consumption, 1992-2010	
VI-24	China - Major Hair Shampoo Manufacturers' Market Share, 1997	
VI-25	China - Surfactant Consumption in Hair Shampoo, 1992-2010	
VI-26	China - Cream Rinse Consumption, 1992-2010	
VI-27	China - Surfactant Consumption in Cream Rinse Products, 1992-2010	
VI-28	China - Toothpaste Consumption, 1992-2010	
VI-29	China - Surfactant Consumption in Toothpaste, 1992-2010	
VI-30	China - Major Body Wash Producers, Brands and Market Share, 1997	
VI-31	China - Surfactant Consumption in Body Washes/Facial Cleansers, 1992-2010	
VI-32	China - Surfactant Consumption in Skin Care and Miscellaneous Products, 1992-2010	
VI-33	China - Summary of Surfactant Consumption by Industrial Applications, 1992-2010	
VI-34	China - Production of Pesticides, 1992-2010	
VI-35	China - Major Pesticide Producers, Production, and Sales, 1996	
VI-36	China - Distribution of Pesticide Forms, 1996 and 2010	
VI-37	China - Surfactant Consumption in Pesticides, 1992-2010	
VI-38	China - I&I Laundry Product Consumption, 1992-2010	
VI-39	China - Surfactant Consumption in I&I Laundry Products, 1992-2010	
VI-40	China - I&I Hard Surface Cleaner Consumption, 1992-2010	
VI-41	China - Surfactant Consumption in I&I Hard Surface Cleaners, 1992-2010	
VI-42	China - Commercial Dishwash Detergent Consumption, 1992-2010	
VI-43	China - Surfactant Consumption in Commercial Dishwash Detergents, 1992-2010	

List of Tables (continued)

<u>Table</u>	<u>Page</u>
VI-44	China - Paint Production by Type, 1992-2010
VI-45	China - Major Coating Producers, Sales and Production, 1996
VI-46	China - Joint Venture Paint Companies, 1995-1996
VI-47	China - Surfactant Consumption in Paints, 1992-2010
VI-48	China - Pulp, Paper & Board and Wastepaper Production, Imports and Exports, 1996
VI-49	China - Production of Pulp & Paper, 1992-2010
VI-50	China - Major Pulp and Paper Manufacturers, 1997
VI-51	China - Surfactant Consumption in Pulp and Papermaking, 1992-2010
VI-52	China - Production of Selected Plastics, 1992-2010
VI-53	China - Synthetic Elastomer Production by Type, 1992-2010
VI-54	China - Imports and Exports of Plastics, 1997
VI-55	China - Major Plastic Producers, 1996
VI-56	China - Major Rubber Producers, 1997
VI-57	China - Surfactant Consumption in Plastics and Elastomers, 1992-2010
VI-58	China - Textile Markets, 1992-2010
VI-59	China - Surfactant Consumption in Cotton Production, 1992-2010
VI-60	China - Surfactant Consumption in Wool Production, 1992-2010
VI-61	China - Surfactant Consumption in Man-made Textile Production, 1992-2010
VI-62	China - Surfactant Consumption in Textile Finishing, 1992-2010
VI-63	China - Total Consumption of Surfactants in Textile Production, 1992-2010
VI-64	Taiwan - Surfactant Intermediates Producers and Capacities, 1998
VI-65	Taiwan - Sulfator/Sulfonator Producers and Capacities, 1998
VI-66	Taiwan - Ethoxylator Producers and Capacities, 1998
VI-67	Taiwan - Major Surfactant Producers and Products, 1998
VI-68	Taiwan - Summary of Surfactant Consumption by End Use, 1992-2010
VI-69	Taiwan - Summary of Surfactant Consumption by Type, 1992-2010
VI-70	Taiwan - Household Product Consumption, 1992-2010
VI-71	Taiwan - Laundry Powder (Compact and Regular) Market Shares, 1997
VI-72	Taiwan - Compact Powder Market Shares, 1997
VI-73	Taiwan - Laundry Detergent Bar Brands, 1997
VI-74	Taiwan - Laundry Liquid Detergent Brands, 1997
VI-75	Taiwan - Laundry Paste Brands, 1997
VI-76	Taiwan - Surfactant Consumption in Laundry Products, 1992-2010
VI-77	Taiwan - Dishwash Detergent Market Share, 1997
VI-78	Taiwan - Surfactant Consumption in Dishwash Liquid Products, 1992-2010
VI-79	Taiwan - Fabric Softener Market Share, 1997
VI-80	Taiwan - Surfactant Consumption in Fabric Softeners, 1992-2010
VI-81	Taiwan - Personal Care Product Consumption, 1992-2010
VI-82	Taiwan - Hair Shampoo Market Shares, 1997
VI-83	Taiwan - Surfactant Consumption in Hair Shampoo, 1992-2010
VI-84	Taiwan - Cream Rinse Market Shares, 1997
VI-85	Taiwan - Surfactant Consumption in Cream Rinses, 1992-2010
VI-86	Taiwan - Toothpaste Market Shares, 1997
VI-87	Taiwan - Surfactant Consumption in Toothpaste, 1992-2010
VI-88	Taiwan - Summary of Surfactant Consumption by Industrial Applications, 1992-2010
VI-89	Taiwan - Pesticide Production by Type, 1992-2010
VI-90	Taiwan - Major Pesticide Manufacturers, 1997
VI-91	Taiwan - Surfactant Consumption in Agricultural Chemicals, 1992-2010
VI-92	Taiwan - Paint Production by Type, 1992-2010

List of Tables (continued)

<u>Table</u>	<u>Page</u>
VI-93	Taiwan - Major Coating Manufacturers, 1997
VI-94	Taiwan - Surfactant Consumption in Paints, 1992-2010
VI-95	Taiwan - Pulp, Paper and Board Production, 1992-2010
VI-96	Taiwan - Production of Pulp by Type, 1992-2010
VI-97	Taiwan - Major Pulp & Paper Manufacturers, 1997
VI-98	Taiwan - Surfactant Consumption in Pulp and Papermaking, 1992-2010
VI-99	Taiwan - Production of Selected Plastics, 1992-2010
VI-100	Taiwan - Synthetic Elastomer Production by Type, 1992-2010
VI-101	Taiwan - Major Plastic Manufacturers, 1997
VI-102	Taiwan - Major Rubber and Elastomer Manufacturers Capacity, 1997
VI-103	Taiwan - Surfactant Consumption in Plastics and Elastomers, 1992-2010
VI-104	Taiwan - Textile Markets, 1992-2010
VI-105	Taiwan - Surfactant Suppliers to the Textile Industry
VI-106	Taiwan - Surfactant Consumption in Cotton Production, 1992-2010
VI-107	Taiwan - Surfactant Consumption in Wool Production, 1992-2010
VI-108	Taiwan - Surfactant Consumption in Manmade Textile Production, 1992-2010
VI-109	Taiwan - Surfactant Consumption in Textile Finishing, 1992-2010
VI-110	Taiwan - Total Surfactant Consumption in Textile Production, 1992-2010
VI-111	India - Duty on LAB Imports, 1993 - 1999
VI-112	India - Alkylbenzene Producers and Capacities, 1998
VI-113	India - Detergent Alcohol Producers and Capacities, 1998
VI-114	India - Alkylphenol Producers and Capacities, 1998
VI-115	India - Ethylene Oxide Producers and Capacities, 1998
VI-116	India - Major Sulfators/Sulfonators and Capacities, 1998
VI-117	India - Major Ethoxylators and Capacities, 1998
VI-118	India - Major Surfactant Producers, 1998
VI-119	India - Summary of Surfactant Consumption by End Use, 1992-2010
VI-120	India - Summary of Surfactant Consumption by Type, 1992-2010
VI-121	India - Household Product Consumption, 1992-2010
VI-122	India - Surfactant Consumption in Laundry Products, 1992-2010
VI-123	India - Surfactant Consumption in Toilet Soaps, 1992-2010
VI-124	India - Surfactant Consumption in Dish Detergents, 1992-2010
VI-125	India - Surfactant Consumption in Fabric Softeners, 1992-2010
VI-126	India - Surfactant Consumption in Other Household Products, 1992-2010
VI-127	India - Personal Care Product Consumption, 1992-2010
VI-128	India - Surfactant Consumption in Personal Care Products, 1992-2010
VI-129	India - Summary of Surfactant Consumption by Industrial Applications, 1992-2010
VI-130	India - Consumption of Pesticides, 1996
VI-131	India - Leading Producers of Selected Agrochemicals, 1998
VI-132	India - Pesticides Market by Type, 1992-2010
VI-133	India - Surfactant Consumption in Pesticides, 1992-2010
VI-134	India - Paint Production by Category and by Major Producer, 1993-1994
VI-135	India - Paint Volume Market Share by Major Producer, 1996/1997
VI-136	India - Paint Production by Type, 1992-2010
VI-137	India - Total Surfactant Consumption in Paints, 1992-2010
VI-138	India - Pulp, Paper and Board Production, 1992-2010
VI-139	India - Surfactant Consumption in Pulp and Papermaking, 1992-2010
VI-140	India - Production of Selected Plastics, 1992-2010
VI-141	India - Synthetic Elastomer Production by Type, 1992-2010
VI-142	India - Surfactant Consumption in Plastics and Elastomers, 1992-2010

List of Tables (continued)

<u>Table</u>	<u>Page</u>
VI-143	India - Textile Markets, 1992-2010
VI-144	India - Surfactant Suppliers to the Textile Industry, 1998
VI-145	India - Surfactant Consumption in Textile Production, 1992-2010
VI-146	Pakistan - Major Sulfonators and Capacities, 1998
VI-147	Pakistan - Summary of Surfactant Consumption by End Use, 1992-2010
VI-148	Pakistan - Summary of Surfactant Consumption by Type, 1992-2010
VI-149	Pakistan - Household Product Consumption, 1992-2010
VI-150	Pakistan - Surfactant Consumption in Other Household Products, 1992-2010
VI-151	Pakistan - Personal Care Product Consumption, 1992-2010
VI-152	Pakistan - Surfactant Consumption in Personal Care Products, 1992-2010
VI-153	Pakistan - Production of Pesticides by Type, 1992-2010
VI-154	Pakistan - Surfactant Consumption in Agricultural Chemicals, 1992-2010
VI-155	Pakistan - Paint Production by Type, 1992-2010
VI-156	Pakistan - Surfactant Consumption in Solvent-Based Paints, 1992-2010
VI-157	Pakistan - Production of Pulp and Paper, 1992-2010
VI-158	Pakistan - Production of Selected Plastics, 1992-2010
VI-159	Pakistan - Textile Production, 1992-2010
VI-160	Pakistan - Total Surfactant Consumption in Textile Production, 1992-2010
VI-161	Indonesia - Intermediate Producers and Capacities, 1998
VI-162	Indonesia - Major Surfactant Producers, 1996
VI-163	Indonesia - Summary of Surfactant Consumption by End Use, 1992-2010
VI-164	Indonesia - Total Surfactant Consumption by Type, 1992-2010
VI-165	Indonesia - Household Product Consumption, 1992-2010
VI-166	Indonesia - Laundry Paste Detergent Market Shares, 1997
VI-167	Indonesia - Laundry Powder Detergent Market Shares, 1997
VI-168	Indonesia - Laundry Compact Powder Detergent Market Shares, 1997
VI-169	Indonesia - Laundry Liquid Detergent Market Shares, 1997
VI-170	Indonesia - Surfactant Consumption in Laundry Products, 1992-2010
VI-171	Indonesia - Toilet Soap Market Shares, 1997
VI-172	Indonesia - Surfactant Consumption in Toilet Soap, 1992-2010
VI-173	Indonesia - Dishwash Detergent Market Shares, 1997
VI-174	Indonesia - Surfactant Consumption in Dishwashing Products, 1992-2010
VI-175	Indonesia - Fabric Softener Market Shares, 1996
VI-176	Indonesia - Surfactant Consumption in Fabric Softeners, 1992-2010
VI-177	Indonesia - Surfactant Consumption in Other Household Products, 1992-2010
VI-178	Indonesia - Personal Care Product Consumption, 1992-2010
VI-179	Indonesia - Hair Shampoo Market Shares, 1996
VI-180	Indonesia - Surfactant Consumption in Hair Shampoo, 1992-2010
VI-181	Indonesia - Cream Rinse Market Shares, 1996
VI-182	Indonesia - Surfactant Consumption in Cream Rinses, 1992-2010
VI-183	Indonesia - Toothpaste Market Shares, 1996
VI-184	Indonesia - Surfactant Consumption in Toothpaste, 1992-2010
VI-185	Indonesia - Surfactant Consumption in Other Personal Care Products, 1992-2010
VI-186	Indonesia - Summary of Surfactant Consumption by Industrial Applications, 1992-2010
VI-187	Indonesia - Pesticide Ingredients and Production Capacity by Manufacturer, 1996
VI-188	Indonesia - Production of Pesticides by Target, 1992-2010
VI-189	Indonesia - Surfactant Consumption in Agricultural Chemicals, 1992-2010
VI-190	Indonesia - Consumption of I&I Laundry Products, 1992-2010
VI-191	Indonesia - Surfactant Consumption in I&I Laundry Products, 1992-2010

List of Tables (continued)

<u>Table</u>	<u>Page</u>
VI-192	Indonesia - Consumption of Hard Surface Cleaners, 1992-2010
VI-193	Indonesia - Surfactant Consumption in Hard Surface Cleaners, 1992-2010
VI-194	Indonesia - Consumption of I&I Dishwashing Products, 1992-2010
VI-195	Indonesia - Surfactant Consumption in I&I Dishwashing Products, 1992-2010
VI-196	Indonesia - Consumption of Paints and Coatings, 1992-1996
VI-197	Indonesia - Imported Paints by Type, 1995
VI-198	Indonesia - Paint Exports, 1991-1996
VI-199	Indonesia - Consumption of Paints and Coatings by Market Segment, 1996
VI-200	Indonesia - Consumption of Paints and Coatings by Market Segment, 1996-2010
VI-201	Indonesia - Paint Production by Type, 1992-2010
VI-202	Indonesia - Selected Paints and Coatings Producers, 1996-1997
VI-203	Indonesia - Surfactant Consumption in Paints, 1992-2010
VI-204	Indonesia - Pulp, Paper and Board Production, 1992-2010
VI-205	Indonesia - Production of Pulp by Type, 1996
VI-206	Indonesia - Major Pulp Producers and Capacities, 1997
VI-207	Indonesia - Major Paper Producers and Capacities, 1997
VI-208	Indonesia - Surfactant Consumption in Pulp and Papermaking, 1992-2010
VI-209	Indonesia - Production of Selected Plastics, 1992-2010
VI-210	Indonesia - Synthetic Elastomer Production by Type, 1992-2010
VI-211	Indonesia - Surfactant Consumption in Emulsion Polymerization of Plastics and Elastomers, 1992-2010
VI-212	Indonesia - Textile Markets, 1992-2010
VI-213	Indonesia - Major Suppliers to the Textile Industry, 1996
VI-214	Indonesia - Surfactant Consumption in Cotton, 1992-2010
VI-215	Indonesia - Surfactant Consumption in Synthetic Textile Production, 1992-2010
VI-216	Indonesia - Surfactant Consumption in Textile Finishing, 1992-2010
VI-217	Indonesia - Total Consumption of Surfactants in Textile Production, 1992-2010
VI-218	Malaysia - Surfactant Intermediate Producers and Capacities, 1998
VI-219	Malaysia - Future Surfactant Intermediate and Surfactant Producers
VI-220	Malaysia - Major Sulfators/Sulfonators and Capacities, 1998
VI-221	Malaysia - Summary of Surfactant Consumption by End Use, 1996-2010
VI-222	Malaysia - Summary of Surfactant Consumption by Type, 1996-2010
VI-223	Malaysia - Household Product Consumption, 1996-2010
VI-224	Malaysia - Laundry Powder Detergent Market Shares, 1996
VI-225	Malaysia - Laundry Detergent Bar Market Shares, 1996
VI-226	Malaysia - Laundry Liquid Detergent Market Shares, 1996
VI-227	Malaysia - Surfactant Consumption in Laundry Products, 1996-2010
VI-228	Malaysia - Surfactant Consumption in Dish Detergents, 1996-2010
VI-229	Malaysia - Surfactant Consumption in Fabric Softeners, 1996-2010
VI-230	Malaysia - Surfactant Consumption in Toilet Soap Bars, 1996-2010
VI-231	Malaysia - Surfactant Consumption in Other Household Products, 1996-2010
VI-232	Malaysia - Personal Care Product Consumption, 1996-2010
VI-233	Malaysia - Hair Shampoo Market Shares, 1996
VI-234	Malaysia - Surfactant Consumption in Hair Shampoo, 1996-2010
VI-235	Malaysia - Surfactant Consumption in Cream Rinses, 1996-2010
VI-236	Malaysia - Toothpaste Market Shares, 1996
VI-237	Malaysia - Surfactant Consumption in Toothpaste, 1996-2010
VI-238	Malaysia - Surfactant Consumption in Other Personal Care Products, 1996-2010
VI-239	Malaysia - Summary of Surfactant Consumption by Industrial Application, 1996-2010

List of Tables (continued)

<u>Table</u>	<u>Page</u>
VI-240	Malaysia - Production of Pesticides by Type, 1996-2010
VI-241	Malaysia - Major Producers and Market Shares of Agrochemicals, 1995
VI-242	Malaysia - Surfactant Consumption in Agricultural Chemicals, 1996-2010
VI-243	Malaysia - Paint Production by Type, 1992-2010
VI-244	Malaysia - Surfactant Consumption in Solvent-Based Paints, 1992-2010
VI-245	Malaysia - Pulp, Paper and Board Production, 1996-2010
VI-246	Malaysia - Surfactant Consumption in Pulp and Papermaking, 1996-2010
VI-247	Malaysia - Production of Plastics, 1996-2010
VI-248	Malaysia - Major Plastics Producers, 1998
VI-249	Malaysia - Surfactant Consumption in Emulsion Polymerization of Plastics and Elastomers, 1996-2010
VI-250	Malaysia - Textile Markets, 1996-2010
VI-251	Malaysia - Surfactant Consumption in Textile Production, 1996-2010
VI-252	Philippines - Surfactant Intermediate Producers and Capacities, 1998
VI-253	Philippines - Major Sulfonators and Capacities, 1998
VI-254	Philippines - Major Surfactant Producers, 1998
VI-255	Philippines - Summary of Surfactant Consumption by End Use, 1992-2010
VI-256	Philippines - Summary of Surfactant Consumption by Type, 1992-2010
VI-257	Philippines - Household Product Consumption, 1992-2010
VI-258	Philippines - Laundry Detergent Bar Market Shares, 1997
VI-259	Philippines - Laundry Powder Detergent Market Shares, 1997
VI-260	Philippines - Laundry Soap Bar Market Shares, 1997
VI-261	Philippines - Surfactant Consumption in Laundry Products, 1992-2010
VI-262	Philippines - Surfactant Consumption in Toilet Soap, 1992-2010
VI-263	Philippines - Dish Detergent Producers and Brands, 1997
VI-264	Philippines - Surfactant Consumption in Dish Detergents, 1992-2010
VI-265	Philippines - Surfactant Consumption in Fabric Softeners, 1992-2010
VI-266	Philippines - Surfactant Consumption in Other Household Products, 1992-2010
VI-267	Philippines - Personal Care Product Consumption, 1992-2010
VI-268	Philippines - Hair Shampoo Market Shares, 1996
VI-269	Philippines - Surfactant Consumption in Hair Shampoo, 1992-2010
VI-270	Philippines - Leading Cream Rinse Products, 1996
VI-271	Philippines - Surfactant Consumption in Cream Rinses, 1992-2010
VI-272	Philippines - Toothpaste Market Shares, 1996
VI-273	Philippines - Surfactant Consumption in Toothpaste, 1992-2010
VI-274	Philippines - Surfactant Consumption in Other Personal Care Products, 1992-2010
VI-275	Philippines - Summary of Surfactant Consumption in Industrial Applications, 1992-2010
VI-276	Philippines - Production of Pesticides by Type, 1992-2010
VI-277	Philippines - Pesticide Industry Profile, 1992
VI-278	Philippines - Major Pesticide Producers, 1996
VI-279	Philippines - Surfactant Consumption in Agricultural Chemicals, 1992-2010
VI-280	Philippines - I&I Laundry Product Consumption, 1992-2010
VI-281	Philippines - Surfactant Consumption in I&I Laundry Products, 1992-2010
VI-282	Philippines - Consumption of Hard Surface Cleaners, 1992-2010
VI-283	Philippines - Surfactant Consumption in Hard Surface Cleaners, 1992-2010
VI-284	Philippines - Consumption of I&I Dishwashing Products, 1992-2010
VI-285	Philippines - Surfactant Consumption in Commercial Dishwash Detergents, 1992-2010
VI-286	Philippines - Paint Consumption by Type, 1992-2010

List of Tables (continued)

<u>Table</u>	<u>Page</u>
VI-287	Philippines - Surfactant Consumption in Paints, 1992-2010
VI-288	Philippines - Pulp, Paper and Board Production, 1992-2010
VI-289	Philippines - Surfactant Consumption in Pulp and Papermaking, 1992-2010
VI-290	Philippines - Production of Plastics, 1992-2010
VI-291	Philippines - Major Plastics Producers, 1997
VI-292	Philippines - Surfactant Consumption in Emulsion Polymerization of Plastics and Elastomers, 1992-2010
VI-293	Philippines - Textile Markets, 1992-2010
VI-294	Philippines - Consumption of Surfactant in Textile Production, 1992-2010
VI-295	Singapore - Surfactant Intermediates, Producers and Capacities, 1998
VI-296	Singapore - Ethoxylators and Capacities, 1998
VI-297	Singapore - Summary of Surfactant Consumption by End Use, 1996-2010
VI-298	Singapore - Summary of Surfactant Consumption by Type, 1996-2010
VI-299	Singapore - Household Product Consumption, 1996-2010
VI-300	Singapore - Laundry Powder Detergent Market Shares, 1996
VI-301	Singapore - Laundry Liquid Detergent Producers and Brands, 1996
VI-302	Singapore - Surfactant Consumption in Laundry Products, 1996-2010
VI-303	Singapore - Dish Detergents Market Shares, 1996
VI-304	Singapore - Surfactant Consumption in Dish Detergents, 1996-2010
VI-305	Singapore - Personal Care Product Consumption, 1996-2010
VI-306	Singapore - Major Hair Shampoo Producers and Brands, 1996
VI-307	Singapore - Surfactant Consumption in Hair Shampoo, 1996-2010
VI-308	Singapore - Toothpaste Market Shares, 1996
VI-309	Singapore - Summary of Surfactant Consumption by Industrial Applications, 1996-2010
VI-310	Singapore - Consumption Estimates of I&I Cleaners, 1996-2010
VI-311	Singapore - Paint Production by Type, 1992-2010
VI-312	Singapore - Consumption of Surfactants in Solvent-Based Paints, 1992-2010
VI-313	Singapore - Paper and Board Production, 1992-2010
VI-314	Singapore - Consumption of Plastics, 1996-2010
VI-315	Singapore - Major Plastics Producers, 1998
VI-316	Singapore - Surfactant Consumption in Emulsion Polymerization of Plastics and Elastomers, 1996-2010
VI-317	Singapore - Textile Markets, 1996-2010
VI-318	Thailand - Major Petrochemical Facilities - 1998
VI-319	Thailand - Sulfonators and Capacities, 1996
VI-320	Thailand - Major Surfactant Producers, 1996
VI-321	Thailand - Summary of Surfactant Consumption by End Use, 1992-2010
VI-322	Thailand - Summary of Surfactant Consumption by Type, 1992-2010
VI-323	Thailand - Household Product Consumption, 1992-2010
VI-324	Thailand - Laundry Product Market Shares, 1996
VI-325	Thailand - Surfactant Consumption in Laundry Products, 1992-2010
VI-326	Thailand - Toilet Soap Market Shares, 1997
VI-327	Thailand - Surfactant Consumption in Toilet Soap Products, 1992-2010
VI-328	Thailand - Dishwash Detergent Market Shares, 1996
VI-329	Thailand - Surfactant Consumption in Dish Detergents, 1992-2010
VI-330	Thailand - Fabric Softener Market Shares, 1997
VI-331	Thailand - Surfactant Consumption in Fabric Softeners, 1992-2010
VI-332	Thailand - Surfactant Consumption in Other Household Products, 1992-2010
VI-333	Thailand - Personal Care Product Consumption, 1992-2010

List of Tables (continued)

<u>Table</u>	<u>Page</u>
VI-334	Thailand - Hair Shampoo Market Shares, 1997
VI-335	Thailand - Surfactant Consumption in Hair Shampoo, 1992-2010
VI-336	Thailand - Cream Rinse Market Shares, 1996
VI-337	Thailand - Surfactant Consumption in Cream Rinses, 1992-2010
VI-338	Thailand - Toothpaste Market Shares, 1997
VI-339	Thailand - Surfactant Consumption in Toothpaste, 1992-2010
VI-340	Thailand - Surfactant Consumption in Other Personal Care Products, 1992-2010
VI-341	Thailand - Summary of Surfactant Consumption in Industrial Applications, 1992-2010
VI-342	Thailand - Production of Pesticides by Type, 1992-2010
VI-343	Thailand - Surfactant Consumption in Agricultural Chemicals, 1992-2010
VI-344	Thailand - I&I Laundry Product Consumption, 1992-2010
VI-345	Thailand - Surfactant Consumption in I&I Laundry Products, 1992-2010
VI-346	Thailand - Consumption of I&I Hard Surface Cleaners, 1992-2010
VI-347	Thailand - Surfactant Consumption in I&I Hard Surface Cleaners, 1992-2010
VI-348	Thailand - Consumption of I&I Dishwashing Products, 1992-2010
VI-349	Thailand - Surfactant Consumption in Commercial Dishwash Products, 1992-2010
VI-350	Thailand - Paint Production by Type, 1992-2010
VI-351	Thailand - Surfactant Consumption in Paints, 1992-2010
VI-352	Thailand - Pulp, Paper and Board Production, 1992-2010
VI-353	Thailand - Production of Pulp by Type, 1996
VI-354	Thailand - Surfactant Consumption in Pulp and Papermaking, 1992-2010
VI-355	Thailand - Production of Plastics, 1992-2010
VI-356	Thailand - Synthetic Elastomer Production by Type, 1992-2010
VI-357	Thailand - Surfactant Consumption in Emulsion Polymerization of Plastics and Elastomers, 1992-2010
VI-358	Thailand - Textile Markets, 1992-2010
VI-359	Thailand - Major Suppliers to the Textile Industry, 1997
VI-360	Thailand - Surfactant Consumption in Cotton Production, 1992-2010
VI-361	Thailand - Surfactant Consumption in Manmade Textile Production, 1992-2010
VI-362	Thailand - Surfactant Consumption in Textile Finishing, 1992-2010
VI-363	Thailand - Total Surfactant Consumption in Textile Production, 1992-2010
VI-364	Vietnam - Sulfators/Sulfonators and Capacities, 1998
VI-365	Vietnam - Summary of Surfactant Consumption by End Uses, 1996-2010
VI-366	Vietnam - Summary of Surfactant Consumption By Type, 1996-2010
VI-367	Vietnam - Household Product Consumption, 1992-2010
VI-368	Vietnam - Major Laundry Powder Producers and Market Shares, 1998
VI-369	Vietnam - Surfactant Consumption in Laundry Products, 1992-2010
VI-370	Vietnam - Surfactant Consumption in Dishwash Products, 1992-2010
VI-371	Vietnam - Major Toilet Soap Producers and Market Shares, 1998
VI-372	Vietnam - Surfactant Consumption in Toilet Soap, 1992-2010
VI-373	Vietnam - Personal Care Product Consumption, 1996-2010
VI-374	Vietnam - Major Hair Shampoo Producers and Market Shares, 1997
VI-375	Vietnam - Surfactant Consumption in Hair Shampoos, 1996-2010
VI-376	Vietnam - Surfactant Consumption in Conditioners, 1996-2010
VI-377	Vietnam - Major Toothpaste Producers and Market Shares, 1998
VI-378	Vietnam - Surfactant Consumption in Toothpaste, 1996-2010
VI-379	Vietnam - Major Skin Care Producers and Market Shares, 1997
VI-380	Vietnam - Summary of Surfactant Consumption in Industrial Applications, 1996-2010

List of Tables (continued)

<u>Table</u>	<u>Page</u>
VI-381	Vietnam - Production of Pesticides by Type, 1996-2010
VI-382	Vietnam - Consumption of Pesticides by Type, 1996-2010
VI-383	Vietnam - Surfactant Consumption in Agricultural Chemicals, 1996-2010
VI-384	Vietnam - Paint Production by Type, 1992-2010
VI-385	Vietnam - Surfactant Consumption in Paints, 1996-2010
VI-386	Vietnam - Pulp, Paper and Board Production, 1996-2010
VI-387	Vietnam - Surfactant Consumption in Pulp and Papermaking, 1996-2010
VI-388	Vietnam - Production of Selected Plastics, 1996-2010
VI-389	Vietnam - Textile Production by Type, 1996-2010
VI-390	Vietnam - Consumption of Surfactants in Textile Production, 1996-2010
VII-1	Total Surfactant Consumption by Major End Use Area, 1992-2010
VII-2	Total Surfactant Consumption by End Use and Country, 1992-2010
VII-3	Total Household Surfactant Consumption, 1992-2010
VII-4	Total Personal Care Surfactant Consumption, 1992-2010
VII-5	Total Industrial Surfactant Consumption, 1992-2010
VII-6	Total Consumption of Anionics by End Use and Country, 1992-2010
VII-7	Total Consumption of Nonionics by End Use and Country, 1992-2010
VII-8	Alcohol Ethoxysulfate Consumption by End Use and Country, 1992-2010
VII-9	Alcohol Sulfates Consumption by End Use and Country, 1992-2010
VII-10	Alpha-Olefin Sulfonates Consumption by End Use and Country, 1992-2010
VII-11	Branched Alkylbenzene Sulfonates Consumption by End Use and Country, 1992-2010
VII-12	Linear Alkylbenzene Sulfonates Consumption by End Use and Country, 1992-2010
VII-13	Lignosulfonates Consumption by End Use and Country, 1992-2010
VII-14	Alkyl naphthalene Sulfonates/Naphthalene Sulfonates Formaldehyde Condensates Consumption by End Use and Country, 1992-2010
VII-15	Soap Consumption by End Use and Country, 1992-2010
VII-16	Sulfosuccinate Consumption by End Use and Country, 1992-2010
VII-17	Other Anionics Consumption by End Use and Country, 1992-2010
VII-18	Alcohol Ethoxylates Consumption by End Use and Country, 1992-2010
VII-19	Alkanolamides Consumption by End Use and Country, 1992-2010
VII-20	Alkylphenol Ethoxylates Consumption by End Use and Country, 1992-2010
VII-21	Block Copolymers Consumption by End Use and Country, 1992-2010
VII-22	Other Nonionics Consumption by End Use and Country, 1992-2010
VII-23	Quaternary Ammonium Compounds Consumption by End Use and Country, 1992-2010
VII-24	Ethoxylated Amines Consumption by End Use and Country, 1992-2010
VII-25	Amine Oxides Consumption by End Use and Country, 1992-2010
VII-26	Amphoterics Consumption by End Use and Country, 1992-2010
VII-27	Other Surfactants Consumption by End Use and Country, 1992-2010

LIST OF FIGURES

<u>FIGURE</u>		<u>PAGE</u>
1	Regional Surfactant Consumption, 1992-2010	
2	Surfactant Consumption by Major Market, 1996 and 2010	
I-1	Surfactant Use Classifications	
I-2	Left to Right Pathways for Synthesis of Major Surfactants from Raw Materials and Intermediates	
III-1	Fatty Acid Route to Oleo Alcohols	
III-2	Methyl Ester Route to Oleo Alcohols	
IV-1	Routes to Surfactants from Petroleum-Based Raw Materials	
IV-2	Routes to Surfactants from Natural Glycerides	
V-1	Cotton Fiber Production by Country - 1996	
V-2	Manmade Fiber Production by Country - 1996	
V-3	Major Processing/Finishing Steps to Produce Textiles	
V-4	Marketing Paths for Textile Surfactants	
VI-1	China - Gross Domestic Product, 1993-1997	

SAMPLE TABLES

Table 1								
SUMMARY OF SURFACTANT CONSUMPTION BY TYPE, 1992-2010 (thousand tons)								
	1992	1996	1997	1998	2000	2005	2010	AAGR % 1996-2010
ANIONICS								
Branched alkylbenzene sulfonates								
Linear alkylbenzene sulfonates								
Alcohol ethoxy-sulfates								
Alcohol sulfates								
Soap								
Other anionic								
Total anionics								
NONIONIC								
Alcohol ethoxylates								
Alkylphenol ethoxylates								
Other nonionic								
Total Nonionic								
CATIONICS								
AMPHOTERICS								
OTHERS								
TOTAL								

Table 3								
SURFACTANT CONSUMPTION BY END MARKET, 1992-2010 (thousand tons)								
	1992	1996	1997	1998	2000	2005	2010	AAGR % 1996-2010
HOUSEHOLD								
Laundry								
Dish								
Fabric softeners								
Other household ^a								
TOTAL HOUSEHOLD								
PERSONAL CARE								
Hair shampoo								
Cream rinse								
Toothpaste								
Other personal care								
TOTAL PERSONAL CARE								
INDUSTRIAL								
Agchem								
I&I Cleaners								
Paints and coatings								
Pulp and paper								
Plastics and elastomers								
Textiles								
TOTAL INDUSTRIAL								
GRAND TOTAL								
^a Includes toilet soap.								

Table V-7								
CONSUMPTION OF CONVENTIONAL POWDERS BY COUNTRY, 1992-2010 (thousand tons)								
	1992	1996	1997	1998	2000	2005	2010	AAGR % 1996-2010
China								
Taiwan								
India								
Pakistan								
Indonesia								
Malaysia								
Philippines								
Singapore								
Thailand								
Vietnam								
TOTAL								

Table VI-37								
CHINA - SURFACTANT CONSUMPTION IN PESTICIDES, 1992-2010 (thousand tons)								
	1992	1996	1997	1998	2000	2005	2010	AAGR % 1996-2010
Alkyphenol ethoxylates								
Linear alkylbenzene sulfonates								
Alcohol ethoxylates								
Ethoxylated castor oils								
Naphthalene sulfonates								
Ethoxylated sorbitan ester/sorbitan esters								
EO/PO copolymers								
Others								
TOTAL								

Table VI-215								
INDONESIA - SURFACTANT CONSUMPTION IN SYNTHETIC TEXTILE PRODUCTION, 1992-2010 (thousand tons)								
	1992	1996	1997	1998	2000	2005	2010	AAGR % 1996-2010
Sulfonated oils								
Soap								
Alkylphenol ethoxylates								
Phosphate esters/ Phosphate ester ethoxylates								
Quaternaries								
Polyethylene glycol								
Sorbitol ester/ sorbitol ester ethoxylates								
Ethoxylated castor oils								
Other								
TOTAL								

Table VI-323								
THAILAND - HOUSEHOLD PRODUCT CONSUMPTION, 1992-2010 (thousand tons)								
	1992	1996	1997	1998	2000	2005	2010	AAGR % 1996-2010
Conventional powder								
Compact powder								
Heavy duty liquids								
Subtotal Laundry								
Toilet soap								
Dishwashing								
Fabric softener								
Others ^a								
TOTAL								
^a Hard surface cleaners and floor cleaners.								

Table VI-368

VIETNAM - MAJOR LAUNDRY POWDER PRODUCERS
AND MARKET SHARES, 1998
(percent)

Company	Brand	Market Share
Lever	Omo, Lux, Doll	
Dasso-Dacco	Dasso, Viso	
Procter & Gamble	Tide	
Tico	Tico	
Lix	Lix	
Net Detergent	Net	
Duc Giang	Duc Giang	
Hanoi Detergent	Hanoi	
Others		
TOTAL		

QUALIFICATIONS AND PERSONNEL

Colin A. Houston & Associates Inc. was founded in 1971 to provide consulting services to the chemical industry worldwide. The primary area of expertise was and continues to be surfactants: raw materials, intermediates, major surfactants, and the surfactant-consuming industries. Other areas of activity include: a variety of industry studies on such topics as oilfield chemicals, detergent builders, ingredients for personal care products, and bleaching agents; engineering studies such as a worldwide study of glycerine evaporation plants with recommendations for improved efficiency; a world study of the state of the art in spray-drying detergents; contracts with the U.S. Government to develop industry effluent guidelines; and business strategy and acquisition studies.

The reputation thus earned by CAHA for comprehensive, high quality techno-economic and market analyses has led to a variety of engineering, marketing, and strategic planning studies for individual clients in North America, Western Europe, and the Asia/Pacific region.

The project team approach utilized by CAHA includes a core of senior and technical professionals augmented by expert consultant associates. The following brief synopses present the staff and consultants who will carry out the study, *Surfactants For Emerging Markets in Asia/Pacific, 1996-2010*.

Joel H. Houston, President,

was the project leader for numerous multiclient studies including SURFACTANTS FOR EMERGING MARKETS IN ASIA/PACIFIC, 1996-2010; OPPORTUNITIES IN PERFORMANCE SURFACTANTS IN THE U.S.; HIGHER ALCOHOLS - WORLD MARKETS, 1992-2005; ASIA/PACIFIC SURFACTANTS, 1990-2005; DETERGENT ALKYLATES - WORLD MARKETS, 1992-2005; and WEST EUROPE HOUSEHOLD DETERGENT INGREDIENTS: SURFACTANTS TO 2000 WITH BUILDER AND BLEACH SYSTEMS. He has guided CAHA's research in oleochemicals since 1980, and in detergents since 1987. Mr. Houston has extensive experience in projects for consumer products. He has presented papers at CMRA, ECMRA and CSMA meetings, and is the editor of CAHA's global detergent newsletter, AGGLOMERATIONS. He is a member of CDA, AOCS and ASTM.

Dr. Alan H. Turner, Senior Research Associate,

has contributed to numerous multiclient and proprietary CAHA studies. He authored several sections of SURFACTANTS FOR EMERGING MARKETS IN ASIA/PACIFIC, 1996-2010 and also authored West Europe portions of ALPHA-OLEFINS - WORLD MARKETS, 1990-2002 and CAHA's West Europe surfactant studies. He provides consultation on alpha-olefins and other topics. Prior to joining CAHA in 1984, Dr. Turner spent 25 years with Shell Research and

Shell International Chemicals in the Netherlands and the U.K., where he worked as a project leader in detergent research and subsequently as manager of development for higher olefins and detergents. He has served on various national and international committees dealing with environmental aspects of detergents. Dr. Turner is a regular lecturer and contributor to international symposia on detergents. In 1990 he presented a paper on trends in builders for laundry detergents in West Europe at the SCI Conference in Cambridge. He has also been involved in a proprietary study on the developing chemical industry of China. Dr. Turner holds a B.Sc., M.A., and D.Phil in Chemistry from Oxford University. He is a Fellow of the Royal Society of Chemistry.

Dr. Darrel L. Muck, Senior Research Associate,

authored our multiclient studies GLUCOSAMIDES: THE CHALLENGE OF A NEW SUGAR-BASED SURFACTANT, 1993-1998 and DEVELOPMENTS IN DETERGENT BUILDER SYSTEMS - NORTH AMERICAN REPORT TO 2005. He has also contributed sections of CAHA's study SURFACTANTS FOR EMERGING MARKETS IN ASIA/PACIFIC, 1996-2010; SURFACTANTS FOR CONSUMER PRODUCTS - NORTH AMERICAN FORECAST TO 2008; and OPPORTUNITIES IN PERFORMANCE SURFACTANTS IN THE U.S., and was responsible for the Paint end use chapter of MAJOR INDUSTRIAL APPLICATIONS OF SURFACTANTS - NORTH AMERICAN FORECAST TO 2005. Dr. Muck has 30 years experience in the chemical industry and was most recently Director of Commercial Development, FMC Chemicals Division. He holds B.S./M.S. degrees in chemistry from Wichita State University and a Ph.D. in Organic Chemistry from the University of Florida. He is a member of ACS and AOCS.

H. James Bigalow, Senior Research Associate,

authored the Paper and Textiles end use sections of our multiclient study SURFACTANTS FOR EMERGING MARKETS IN ASIA/PACIFIC, 1996-2010, contributed to SURFACTANTS FOR CONSUMER PRODUCTS - NORTH AMERICAN FORECAST TO 2008 and has worked on proprietary detergent and surfactant studies. Mr. Bigalow has over 20 years experience as a senior marketing research executive in the chemical industry. He has conducted successful business analysis projects which have included financial evaluations of businesses and acquisition candidates, identifying current and future markets for new and existing products, and product development and usage. Additional experience has included economic and sales forecasting, strategic planning, proprietary market research projects, benchmarking, and product safety. He is a member of the Chemical Management & Resources Association, the Society of Competitive Intelligence Professionals (SCIP), ACS and the Chemical Marketing and Economics Division of the ACS. Mr. Bigalow holds an M.S. Industrial Administration, Krannert School of Management, Purdue University and a B.S. degree in Chemistry, Denison University.

Jenny Qin Li, Research Associate

authored the Ag Chem and other sections of our multiclient study SURFACTANTS FOR EMERGING MARKETS IN ASIA/PACIFIC, 1996-2010, the Personal Care section of SURFACTANTS FOR CONSUMER PRODUCTS - NORTH AMERICAN FORECAST TO 2008 and the Betaines, Sarcosinates and Amine Oxide sections of OPPORTUNITIES IN PERFORMANCE SURFACTANTS IN THE U.S. She holds a B.S., Industrial Foreign Trade and Computer Science, Shanghai University of Technology, Shanghai, China and has a Masters degree in Business Administration, Clark University, Worcester, MA.

Christopher Morrow, Research Associate

authored sections of our multiclient study SURFACTANTS FOR EMERGING MARKETS IN ASIA/PACIFIC, 1996-2010 and contributed to various sections of the multiclient study entitled SURFACTANTS FOR CONSUMER PRODUCTS - NORTH AMERICAN FORECAST TO 2008. He has also been a contributor to a proprietary study of market share data. Mr. Morrow holds a B.S. Fairfield University, Major in Biology and Religious Studies and is a Microsoft Certified Product Specialist.

COST AND DELIVERY SCHEDULE

The price of the study, *Surfactants for Emerging Markets in Asia/Pacific, 1996-2010*, is \$33,000. One-half of the fee is payable on signing the contract, and the balance is due on receipt of three (3) copies of the final report. Additional copies are available at \$175.00 each plus shipping.

HOW TO SUBSCRIBE

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