

CONTENTS

		Page
One	Introduction	1
Two	Acetyl Chloride	5
Three	Acrylic Fibers	9
Four	Acrylonitrile	18
Five	Styrene-Acrylonitrile (SAN) and Acrylonitrile-Butadiene-Styrene (ABS)	25
Six	Alkylamines	35
Seven	Aldehydes and Alcohols (Oxo Reaction)	40
Eight	Aluminum	47
Nine	Aluminum sulfate	60
Ten	Ammonia	63
Eleven	Antibiotics, Steroids, and Potent Drugs	67
Twelve	Asbestos-Cement Pipe Manufacture	82
Thirteen	Benzene, Toluene, and Xylenes	90
Fourteen	Butadiene Rubbers	95
Fifteen	Butyl Rubber	103
Sixteen	Low-Temperature Shift Catalyst	105
Seventeen	Cellulose Acetate	109
Eighteen	Cement	116
Nineteen	Chlorine and Sodium Hydroxide	126
Twenty	Chromic Acid, Anhydrous	136
Twenty-one	Cobalt Refining	142
Twenty-Two	Copper	147
Twenty-Three	Diatomite Mining and Processing	167
Twenty-Four	Dinitrotoluene/Toluenediaming	175
Twenty-Five	Diphenylmethane diisocyanate (MDI); Polymethylene Polyphenylisocyanate (PMPPi)	180
Twenty-Six	Dry Cereal Grain	193
Twenty-Seven	Ethyl Alcohol from Hydration of Ethylene	208
Twenty-Eight	Ethylene Oxide-Ethylene Glycol	213
Twenty-Nine	Fiber Glass	218
Thirty	Fluorine	239
Thirty-One	Fluorocarbon Refrigerant Gases and Solvents	251
Thirty-Two	Furfural	257
Thirty-Three	Furfuryl Alcohol	263
Thirty-Four	Glass	266
Thirty-Five	Halogenated Flame Retardant Production	284
Thirty-Six	Hydroquinone	298
Thirty-Seven	Lead, Zinc, and Cadmium	306
Thirty-Eight	Maleic Anhydride	321
Thirty-Nine	Molybdenum Conversion	327
Forty	Molybdenite Mining, Milling, and Beneficiation	331
Forty-One	Nickel Refining	342
Forty-Two	Nitric Acid	346
Forty-Three	Nylon 6 Fiber Process	351
Forty-Four	Paint	356
Forty-Five	Perlite Mining, Milling, and Expansion Operations	369
Forty-Six	Petroleum Refinery Processing	373
Forty-Seven	Phosphoric Acid	396
Forty-Eight	Polyester Fiber Production	403
Forty-Nine	Polyester Fiber Processing	408
Fifty	Polyester Resin Production-Fiber Products	414

Fifty-One	Low-Density Polyethylene	421
Fifty-Two	Polyurethanes and Polyisocyanurates	423
Fifty-Three	Polyvinyl chloride	440
Fifty-Four	Refractories	443
Fifty-Five	Steel Production	457
Fifty-Six	Sulfuric Acid	488
Fifty-Seven	Synthetic Detergents	498
Fifty-Eight	Synthetic Fuels	512
Fifty-Nine	Terephthalic Acid and Dimethyl Terephthalate	543
Sixty	Terpenes	548
Sixty-One	Textile Industry Processes	554
Sixty-Two	Titanium Dioxide	612
Sixty-Three	Urea	618
Index		621