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MALEIC ANHYDRIDE

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CONTENTS

1	INTRODUCTION	1
2	SUMMARY	3
3	INDUSTRY STATUS	11
4	MALEIC ANHYDRIDE FROM BENZENE	19
	Chemistry	19
	Review of Processes	27
	Effect of Temperature and Pressure	27
	Catalysts	34
	Reactor Types	36
	Effect of Air to Benzene Ratio	38
	Space Velocity, Yield, Conversion, and Selectivity	38
	By-Products	40
	Recovery of Maleic Anhydride (C ₄ or benzene feed)	41
	Dehydration, Purification, and Color Stabilization (C ₄ or benzene feed)	46
	Description of Design Case	51
	Discussion of Design Case	61
	Cost Estimates	63
5	MALEIC ANHYDRIDE FROM n-BUTANE	69
	Chemistry	69
	Review of Processes	70
	Selection of Data for Design Case	70
	Description of Design Case	74
	Discussion of Design Case	83
	Cost Estimates	85
6	MALEIC ANHYDRIDE FROM C ₄ OLEFINS	91
	Chemistry	91
	Review of Processes	92
	Effect of Temperature and Pressure	92
	Catalysts	97
	Reactor Types	98
	Effect of Air to C ₄ Olefin Ratio	98
	Space Velocity, Yield, Conversion, and Selectivity	100
	By-Products	102
	Recovery and Purification of Maleic Anhydride	103
	Description of Design Case	103

CONTENTS

6	(continued)	
	Discussion of Design Case	110
	Cost Estimates	111
7	MALEIC ANHYDRIDE FROM BUTENE-BUTADIENE FEED	117
	Description of Design Case	118
	Discussion of Design Case	126
	Cost Estimates	128
8	MALEIC ANHYDRIDE FROM BENZENE--HIGH SPACE VELOCITY CASE	133
	Background for Design Case	133
	Description of Design Case	133
	Fixed Capital and Production Costs	138
	Discussion of Results	138
9	FUMARIC ACID FROM MALEIC ANHYDRIDE	141
	Review of Processes	141
	Industry Status	141
APPENDIX A	DESIGN CONDITIONS, COST BASIS AND DEFINITIONS	145
APPENDIX B	PHYSICAL DATA	149
APPENDIX C	SPECIFICATIONS	151
APPENDIX D	HANDLING AND SAFETY	153
CITED REFERENCES	169
SUPPLEMENTARY REFERENCES	187

ILLUSTRATIONS

4.1	Rate Data for Catalytic Oxidation of Benzene to Maleic Anhydride and Carbon Oxides	24
4.2	Maleic Anhydride from Benzene	57
4.3	Alternative Purification System (Maleic Anhydride from Benzene)	60
4.4	Maleic Anhydride from Benzene Effect of Operating Level and Design Capacity on Production Cost	68
5.1	Maleic Anhydride from n-Butane	79
5.2	Maleic Anhydride from n-Butane Effect of Operating Level and Design Capacity on Production Cost	89
6.1	Maleic Anhydride from n-Butene	107
6.2	Maleic Anhydride from Butene Effect of Operating Level and Design Capacity on Production Cost	115
7.1	Maleic Anhydride from Butene-Butadiene Feed	123
7.2	Maleic Anhydride from Butene-Butadiene Feed Effect of Operating Level and Design Capacity on Production Cost	132

TABLES

2.1	Process Costs for Producing Maleic Anhydride	5
3.1	Maleic Anhydride Producers	15
3.2	Recent New Plants and Expansions	17
4.1	Maleic Anhydride from Benzene Summary of Processes	29
4.2	Recovery of Maleic Anhydride Summary of Processes	42
4.3	Dehydration and Purification Summary of Processes	47
4.4	Maleic Anhydride from Benzene Major Process Equipment and Utilities Summary	57
4.5	Maleic Anhydride from Benzene Stream Flows	59
4.6	Maleic Anhydride from Benzene Battery Limits and Utilities Investment	64
4.7	Maleic Anhydride from Benzene Total Capital Investment	66
4.8	Maleic Anhydride from Benzene Production Costs	67
5.1	Maleic Anhydride from n-Butane Summary of Processes	71
5.2	Maleic Anhydride from n-Butane Major Process Equipment and Utilities Summary	78
5.3	Maleic Anhydride from n-Butane Stream Flows	81
5.4	Maleic Anhydride from n-Butane Battery Limits and Utilities Investment	86
5.5	Maleic Anhydride from n-Butane Total Capital Investment	87
5.6	Maleic Anhydride from n-Butane Production Costs	88
6.1	Maleic Anhydride from C ₄ Olefins Summary of Processes	93

TABLES

6.2	Maleic Anhydride from n-Butene Major Process Equipment and Utilities Summary	107
6.3	Maleic Anhydride from n-Butene Stream Flows	109
6.4	Maleic Anhydride from n-Butene Battery Limits and Utilities Investment	112
6.5	Maleic Anhydride from n-Butene Total Capital Investment	113
6.6	Maleic Anhydride from n-Butene Production Costs	114
7.1	Maleic Anhydride from Butene-Butadiene Feed Major Process Equipment and Utilities Summary	123
7.2	Maleic Anhydride from Butene-Butadiene Feed Stream Flows	125
7.3	Maleic Anhydride from Butene-Butadiene Feed Battery Limits and Utilities Investment	129
7.4	Maleic Anhydride from Butene-Butadiene Feed Total Capital Investment	130
7.5	Maleic Anhydride from Butene-Butadiene Feed Production Costs	131
8.1	Maleic Anhydride from Benzene--High Space Velocity Case Utilities Summary	136
8.2	Maleic Anhydride from Benzene--High Space Velocity Case Battery Limits and Utilities Investment	137
8.3	Maleic Anhydride from Benzene--High Space Velocity Case Total Capital Investment	138
8.4	Maleic Anhydride from Benzene--High Space Velocity Case Production Costs	139
9.1	Fumaric Acid from Maleic Anhydride Summary of Processes	142

1 INTRODUCTION

This report describes processes for producing maleic anhydride from four starting materials--benzene, normal butane, normal butenes, and a mixture of 1,3-butadiene and normal butenes. Both low and high space velocity design cases using benzene as feed are evaluated. The original scope of the report was expanded to include a brief discussion on fumaric acid.

Information for the study was obtained only from patents and general literature sources. Stanford Research Institute did not have access to unpublished process diagrams or plans of any company.

None of the process designs developed completely represents the technology of one company. Because the patents reviewed describe only limited parts of a process, it was necessary to use personal judgment to integrate and complete the design.

The Institute does not know whether the patents used for the design cases also were the basis for commercial installations. However, it is known that, with the exception of butane, the starting materials studied have been used, or will be used, in the near future, as feedstocks for maleic anhydride plants.