



Petroleum and Petrochemical Economics

Quarterly Business Analysis Asia Pacific

Supplement 2014

July 2014



This Report was prepared by Nexant, Inc. ("Nexant") and is part of the NexantThinking™ suite. Except where specifically stated otherwise in this Report, the information contained herein is prepared on the basis of information that is publicly available, and contains no confidential third party technical information to the best knowledge of Nexant. Aforesaid information has not been independently verified or otherwise examined to determine its accuracy, completeness or financial feasibility. Neither Nexant, Subscriber nor any person acting on behalf of either assumes any liabilities with respect to the use of or for damages resulting from the use of any information contained in this Report. Nexant does not represent or warrant that any assumed conditions will come to pass.

The Report is submitted on the understanding that the Subscriber will maintain the contents confidential except for the Subscriber's internal use. The Report should not be reproduced, distributed or used without first obtaining prior written consent by Nexant. Each Subscriber agrees to use reasonable effort to protect the confidential nature of the Report.

Copyright © by Nexant Inc. 2014. All rights reserved.

Contents

Section	Page
1 Executive Summary	1
2 Methodology	2
2.1 LEADER LAGGARD PLANT CONCEPT	2
2.2 COST OF PRODUCTION DEFINITION AND BASIS	4
2.3 INVESTMENT COSTS	10
2.4 PRICING BASIS	13
2.5 PROFITABILITY ANALYSIS AND BASIS	16
3 Olefins	18
3.1 ETHYLENE/PROPYLENE	18
4 Polyolefins	27
4.1 LOW DENSITY POLYETHYLENE (LDPE)	27
4.2 LINEAR LOW DENSITY POLYETHYLENE (LLDPE)	32
4.3 HIGH DENSITY POLYETHYLENE (HDPE)	37
4.4 POLYPROPYLENE (PP)	42
5 Vinyls	47
5.1 CHLOR-ALKALI AND VINYL CHLORIDE MONOMER (VCM)	47
5.2 POLYVINYL CHLORIDE (PVC)	55
6 Aromatics	60
6.1 REFORMATE, BENZENE, TOLUENE AND XYLENES	60
7 Styrenics	75
7.1 STYRENE	75
7.2 POLYSTYRENE	80
8 Polyester and Intermediates	85
8.1 MONO ETHYLENE GLYCOL (MEG)	85
1.1 PARA-XYLENE	90
1.2 PURIFIED TEREPHTHALIC ACID (PTA)	98
1.3 POLYETHYLENE TEREPHTHALATE (PET)	100
9 Propylene Derivatives	102
1.4 ACRYLONITRILE	102
1.5 CUMENE/PHENOL	107