



Petroleum and Petrochemical Economics

Quarterly Business Analysis United States

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 Introduction	1
1.1 Summary	1
1.2 Methodology	2
2 Crude Oil, Refining and Petrochemical Feedstocks	14
2.1 Introducton	14
2.2 Refinery Configurations and Product Yields	14
2.3 Natural Gas Liquid Extraction	18
3 Olefins	21
3.1 Ethylene.....	21
3.2 Propylene	35
3.3 Butadiene	39
4 Polyolefins	42
4.1 Low Density Polyethylene (LDPE)	42
4.2 Linear Low Density Polyethylene (LLDPE)	45
4.3 High Density Polyethylene (HDPE)	48
4.4 Polypropylene.....	53
5 Vinyls	56
5.1 Chlor-alkali/Ethylene Dichloride/Vinyl Chloride	56
5.2 Polyvinyl Chloride (PVC)	66
6 Aromatics.....	69
6.1 Reformate, Benzene, Toluene and Mixed Xylenes (BTX)	69
6.2 Cyclohexane.....	83
7 Styrenics.....	86
7.1 Styrene	86
7.2 PolyStyrene	89
8 Polyester and Intermediates.....	92
8.1 Ethylene OXIDE (EO)/Ethylene Glycol (EG).....	92
8.2 <i>Para</i> -Xylene and <i>Ortho</i> -xylene	95
8.3 purified Terephthalic Acid (PTA)	100
8.4 polyethylene Terephthalate (PET)	103
9 Propylene Derivatives	106
9.1 Acrylonitrile	106
9.2 Cumene/Phenol.....	109