

MARKETS AND PROFITABILITY

Market Analytics: Acetic Acid and VAM - 2024

May 2024



This Report was prepared by NexantECA, the Energy and Chemicals Advisory company ("NexantECA"). Except where specifically stated 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 and belief of NexantECA. The information has not been independently verified or otherwise examined to determine its accuracy, completeness or financial feasibility. Neither NexantECA, Subscriber nor any person acting on behalf of either shall have any liabilities for any loss or damage arising from or connected to the use of any information contained in this Report. NexantECA does not represent or warrant that any assumed conditions will come to pass.

The Report is for Subscriber's internal use only and shall be kept strictly confidential. The Report should not be otherwise reproduced, distributed or used without first obtaining prior written consent by NexantECA. Each Subscriber agrees to use reasonable effort to protect the confidential nature of the Report.

Copyright © by NexantECA (BVI) Ltd. 2024. All rights reserved.



Contents

1	Executive Summary	6
1.1	Acetic Acid.....	6
2	Introduction	12
2.1	The Methanol Industry	12
2.1.1	Methanol Demand into Chemical End-Uses	12
2.1.1.1	Formaldehyde	12
2.1.1.2	Acetic Acid	13
2.1.1.3	Olefins	13
2.1.1.4	Methyl Methacrylate	13
2.1.1.5	Dimethyl Terephthalate	14
2.1.1.6	Methylamines	14
2.1.1.7	Methyl Halides.....	14
2.1.1.8	Other Chemical Uses	14
2.1.2	Methanol Demand into Fuel End-Uses	15
2.1.2.1	Gasoline Blending.....	15
2.1.2.2	Biodiesel.....	15
2.1.2.3	Methyl tert-Butyl Ether (MTBE)	15
2.1.2.4	Dimethyl Ether (DME)	16
2.1.2.5	Methanol to Gasoline (MTG).....	17
2.1.2.6	Bunker Fuel.....	17
2.1.2.7	Fuel Cells	18
2.1.2.8	Methanol to Power	19
2.2	Sustainable Methanol.....	20
2.2.1	Blue Methanol	21
2.2.2	Green-methanol	22
2.2.3	e-Methanol	23
2.3	Future Emerging Methanol Applications	24
2.3.1	The Shipping Fuel Market	24
2.3.2	Methanol as a Shipping Fuel.....	25
2.4	Market Coverage.....	28
3	Acetic Acid.....	29
3.1	Global	29
3.1.1	Key Developments	29
3.1.2	Demand.....	29
3.1.3	Supply	33
3.1.4	Supply, Demand and Trade	35
3.2	North America	37
3.2.1	Demand.....	37
3.2.2	Supply	38
3.2.3	Supply, Demand and Trade	39
3.3	South America.....	42



	3.3.1	Demand	42
	3.3.2	Supply	43
	3.3.3	Supply, Demand and Trade	44
3.4		Western Europe	45
	3.4.1	Demand	45
	3.4.2	Supply	46
	3.4.3	Supply, Demand and Trade	47
3.5		Central Europe	48
	3.5.1	Demand	48
	3.5.2	Supply	48
	3.5.3	Supply, Demand and Trade	49
3.6		Eastern Europe	50
	3.6.1	Demand	50
	3.6.1.1	Russia	50
	3.6.1.2	Other Eastern Europe	51
	3.6.2	Supply	51
	3.6.2.1	Russia	51
	3.6.2.2	Other Eastern Europe	51
	3.6.3	Supply, Demand and Trade	51
	3.6.3.1	Russia	51
	3.6.3.2	Other Eastern Europe	53
3.7		Middle East	55
	3.7.1	Demand	55
	3.7.2	Supply	57
	3.7.3	Supply, Demand and Trade	57
3.8		Africa	59
	3.8.1	Demand	59
	3.8.2	Supply	59
	3.8.3	Supply, Demand and Trade	60
3.9		Asia Pacific	61
	3.9.1	Demand	61
	3.9.1.1	China	61
	3.9.1.2	North-East Asia	61
	3.9.1.3	South-East Asia	62
	3.9.1.4	South Asia	62
	3.9.1.5	Australasia	62
	3.9.2	Supply	64
	3.9.2.1	China	64
	3.9.2.2	North-East Asia	64
	3.9.2.3	South-East Asia	64
	3.9.2.4	South Asia	65
	3.9.2.5	Australasia	65
	3.9.3	Supply, Demand and Trade	65



Appendices

A	Methodology	68
A.1	Market Dynamics Forecasting Methodology	68
A.1.1	Capacity Availability and Forecasting	68
A.1.2	End-Use Consumption Forecasting	68
A.1.2.1	End-Use Sector Growth	69
A.1.2.2	Penetration (New Application Growth)	69
A.1.2.3	Short-term Influences	70
A.1.3	Monomer Consumption Forecasting	70
A.1.4	Production and Trade Forecasting	71
B	The Methanol Industry – Technology.....	72
B.1	Methanol.....	72
B.2	Formaldehyde	73
B.3	MTBE	74
B.4	Acetic Acid.....	75



Figures

Figure 1	Bunker Fuel by Type, 2015-2050	25
Figure 2	Forecast Methanol Demand in Western Europe – New Market Opportunity as a Marine Fuel.....	27
Figure 3	Global Acetic Acid Demand, 2023-e	31
Figure 4	Global GDP Growth vs. Acetic Acid Consumption Growth	31
Figure 5	Global Acetic Acid Consumption by Region	32
Figure 6	Global Acetic Acid Capacity Share by Marketer, 2023-e	33
Figure 7	Global Acetic Acid Capacity Additions/(Closures).....	34
Figure 8	Global Acetic Acid Capacity	34
Figure 9	Global Acetic Acid Supply and Demand.....	35
Figure 10	Regional Acetic Acid Exports/Imports	36
Figure 11	North America Acetic Acid Consumption, 2023-e	38
Figure 12	North America Acetic Acid Supply, Demand and Trade	40
Figure 13	United States Acetic Acid Supply, Demand and Trade	41
Figure 14	South America Acetic Acid Consumption, 2023-e	43
Figure 15	South America Acetic Acid Supply, Demand and Trade	44
Figure 16	Western Europe Acetic Acid Consumption, 2022-e	46
Figure 17	Western Europe Acetic Acid Supply, Demand and Trade	47
Figure 18	Central Europe Acetic Acid Consumption, 2023-e	48
Figure 19	Central Europe Acetic Acid Supply, Demand and Trade	49
Figure 20	Russia Acetic Acid Consumption, 2023-e	50
Figure 21	Russia Europe Acetic Acid Supply, Demand and Trade	52
Figure 22	Other Eastern Europe Acetic Acid Supply, Demand and Trade	53
Figure 23	Total Eastern Europe Acetic Acid Supply/Demand and Trade	54
Figure 24	Middle East Consumption, 2023-e	56
Figure 25	Middle East Acetic Acid Supply, Demand and Trade.....	58
Figure 26	Africa Acetic Acid Supply, Demand and Trade	60
Figure 27	Asia Pacific Acetic Acid Consumption, 2023-e.....	63
Figure 28	Asia Pacific Acetic Acid Supply, Demand and Trade	66
Figure 29	China Acetic Acid Supply, Demand and Trade	67
Figure 30	End-Use Consumption Drivers	69
Figure 31	Monomer Consumption Drivers	70
Figure 32	Trade Considerations	71

Tables

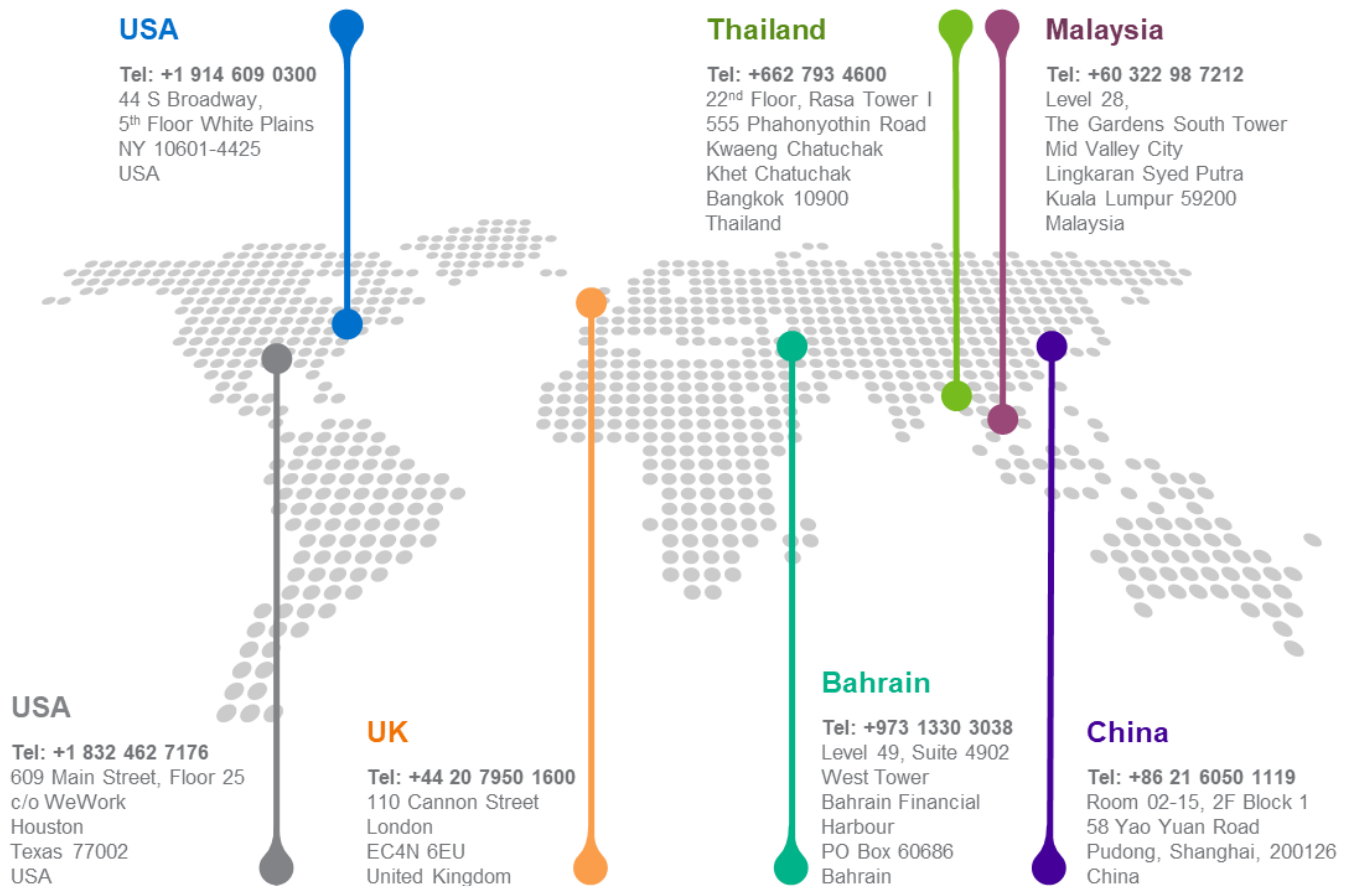
Table 1	Proposed Bio-methanol Project Status	22
Table 2	Energy Density of Current and Potential Shipping Fuels	26
Table 3	Global Acetic Acid Consumption by Derivative	31
Table 4	Global Acetic Acid Consumption by Region	32
Table 5	Global Acetic Acid Supply and Demand.....	35
Table 6	North America Acetic Acid Consumption by Derivative	38



Table 7	North America Acetic Acid Consumption by Country	38
Table 8	North America Acetic Acid Supply, Demand and Trade	40
Table 9	United States Acetic Acid Supply, Demand and Trade	41
Table 10	South America Acetic Acid Consumption by Derivative	43
Table 11	South America Acetic Acid Consumption by Country	43
Table 12	South America Acetic Acid Supply, Demand and Trade	44
Table 13	Western Europe Acetic Acid Consumption by Derivative	46
Table 14	Western Europe Acetic Acid Supply, Demand and Trade	47
Table 15	Central Europe Acetic Acid Consumption by Derivative	48
Table 16	Central Europe Acetic Acid Supply, Demand and Trade	49
Table 17	Russia Acetic Acid Consumption by Derivative.....	50
Table 18	Russia Acetic Acid Supply, Demand and Trade.....	52
Table 19	Other Eastern Europe Acetic Acid Supply, Demand and Trade	53
Table 20	Total Eastern Europe Acetic Acid Supply/Demand and Trade	54
Table 21	Middle East Acetic Acid Consumption by Derivative	56
Table 22	Middle East Acetic Acid Consumption by Country	56
Table 23	Middle East Acetic Acid Supply, Demand and Trade	58
Table 24	Africa Acetic Acid Consumption by Derivative	59
Table 25	Africa Acetic Acid Consumption by Country	59
Table 26	Africa Acetic Acid Supply, Demand and Trade	60
Table 27	Asia Pacific Acetic Acid Consumption by Derivative	63
Table 28	Asia Pacific Acetic Acid Consumption by Country	63
Table 29	Asia Pacific Acetic Acid Supply, Demand and Trade	66
Table 30	China Acetic Acid Supply, Demand and Trade	67



NexantECA partners with clients to help them navigate the big global energy, chemicals and materials issues of tomorrow. We provide independent advice through our consulting, subscriptions and reports, and training businesses using expertise developed in markets, economics and technology through our fifty years of operation. We are entirely dedicated to supporting sustainable development of the industry and provide expert advice with efficiency, speed, and agility.



Disclaimer

This Report was prepared by NexantECA, the Energy and Chemicals Advisory company. Except where specifically stated otherwise in this Report, the information contained here is prepared on the basis of information that is publicly available, and contains no confidential third-party technical information to the best knowledge of NexantECA. Aforesaid information has not been independently verified or otherwise examined to determine its accuracy, completeness or financial feasibility. Neither NexantECA, Client 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. NexantECA does not represent or warrant that any assumed conditions will come to pass.