

CHEMICAL BUSINESS FOCUS

A MONTHLY ROUNDUP AND ANALYSIS OF THE
KEY FACTORS SHAPING WORLD CHEMICAL MARKETS

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- Ashland signs MoU for resins and gelcoats manufacturing in India
- UPR prices slide in Asia/Middle East on poor demand, lower feeds
- Hurricane Ike causes glycols and styrene monomer supply problems
- Crude volatility, arbitrage prompt European styrene monomer rally
- Phthalic anhydride numbers track feedstocks and fall in all regions
- Maleic anhydride quarter four price negotiations set to start shortly

Unsaturated Polyester Resins

As crude prices fell to \$100/bbl and even lower in September, and US UPR producers started to hope for some relief on raw material prices, Hurricane Ike, rocked US Gulf petrochemical installations mid September disrupting raw material supplies and logistics. European players said they expect the recent weaker crude oil price trend to be reflected into lower raw material prices in quarter four. Chinese prices have continued to slide in September as major feedstock values decreased. By 24 September, general purpose UPR ex-works prices had dropped by Rmb300/ton to a range of Rmb11400-12000/ton (\$1670-1760/ton), compared with last month.

Maleic Anhydride

August business was slow in the US but volumes were in line with expectations. The market was lacklustre at best. The European market reopened on 25 August after long seasonal holidays and it was reported as quiet. Activity was expected to resume but was slow. Export prices out of China slumped in August due to the continuing slide of crude oil values and poor demand to a range of \$1450-1500/ton fob China main port.

Phthalic Anhydride

In the US, some are estimating 2008 demand as much as 8-10% down on last year. Looking at Europe, liquid accounts paying on a formula basis have automatically fallen back. As a result of poor demand and sliding feedstock values, ex-works phthalic anhydride prices in China had fallen off by as much as Rmb1400/ton compared with later August numbers.

Glycols

DEG availability in the US is very tight. In Europe, the sluggish MEG market has meant reduced glycols output. This, combined with potential requirements from the US, has lent some strength to DEG. Chinese DEG import prices are around \$980-990/ton. UPR and polyester are operating at around 60%.

Styrene Monomer

US contracts for August rolled over. Spot prices have started to move up again, reacting to disruptions brought about by Hurricane Ike. European contracts settled lower by Euro32/ton on average compared with August. Asian prices held steady in second-half August before tracking down in first half September. Production cutbacks have continued.

PRICE MONITOR

US PRICES

		22 June 2008 ¢/pound	25 July 2008 ¢/pound	26 August 2008 ¢/pound	26 September 2008 ¢/pound		26 September 2008 \$/ton
UPR	Contract Average	90.00-92.00	92.00-94.00	92.00-94.00	90.00-92.00	DEL	1984-2028
Maleic Anhydride	Molten Contract*	76.00-83.00	81.00-88.00	81.00-88.00	81.00-88.00	FOB	1786-1940
Phthalic Anhydride	Contract (Molten)	69.50-70.50	73.00-75.00	78.00-79.50	72.50-74.00	FOB	1598-1631
	Contract (Flake)	69.50-72.50	73.00-76.00	78.00-80.00	72.50-75.00	DEL	1598-1653
DEG	Contract	54.00-56.00	58.00-61.00	58.00-65.00	63.00-65.00	FOB	1389-1433
Monopropylene Glycol	USP Grade Contract	92.00-102.00	92.00-102.00	95.00-105.00	95.00-105.00	EWX	2094-2315
Styrene Monomer	Contract, list barges (1)	74.50-76.50	77.50-79.50	77.50-79.50	N.A.	FOB	N.A.

*=Quarterly price

WEST EUROPEAN PRICES

		€/ton	€/ton	€/ton	€/ton		\$/ton
UPR	Orthophthalic Resins	1510-1650	1550-1690	1550-1690	1550-1690	DEL	2159-2354
	Isophthalic Resins	1800-1900	1830-1950	1830-1950	1830-1950	DEL	2549-2716
Maleic Anhydride	Molten Contract*	1640-1660	1700-1720	1700-1720	1700-1720	DEL	2368-2396
Phthalic Anhydride	Domestic (Molten) (2)	1225-1250	1250-1275	1230-1250	1175-1200	DEL	1636-1671
	Domestic (Flake)	1075-1100	1130-1150	1050-1070	1000-1050	DEL	1393-1462
DEG	Spot	840-850	910-920	900-910	840-850	DEL	1170-1184
Monopropylene Glycol	USP Grade Contract	1100-1160	1120-1180	1150-1200	1150-1200	DEL	1602-1671
Styrene Monomer	Monthly Contract	1173-1198	1214-1239	1275-1300	1243-1268	DEL	1731-1766

ASIAN PRICES

							\$/ton
UPR	China Domestic (Rmb/ton)	12300-13100	12000-12800	11500-12300	11400-12000	EXW	1665-1753
	Taiwan Domestic (NT\$/ton)	60500-65500	60000-65000	55000-60000	53000-58000	EXW	1653-1809
	Taiwan Export (\$/ton)	1910-1930	1900-1920	1880-1950	1830-1900	FOB	
Maleic Anhydride	China Domestic (Rmb/ton)	10500-11000	11300-11800	11000-11600	9200-9800	EXW	1344-1431
Phthalic Anhydride	Taiwan Contract (NT\$/ton)	44400-44900	44900-45400	42000-42500	39200-39700	DEL	1223-1238
	(Molten)						
	Taiwan Contract (NT\$/ton)	45100-45400	45600-45900	42700-43000	38900-40200	DEL	1213-1254
	(Flake)						
	China Domestic (Rmb/ton)	11800-12000	10800-11000	10700-11000	9000-9300	EXW	1315-1358
	Import Spot (\$/ton)	1490-1510	1450-1500	1350-1375	1130-1160	CFR	
DEG	Import East Asia (\$/ton)	1150-1160	1050-1060	980-990	980-990	CFR	
Styrene Monomer	China Domestic (Rmb/ton)	13350-13400	12100-12150	12300-12400	10900-11000	EXW	1592-1607

(1) This is the producer list level after any relevant TVAs have been applied, but before relevant contract discounts.

(2) Free market price, set by negotiation and not by formula

Rmb/ton=includes VAT at 17 % *=Quarterly price **=Freight equalised N.A.=Not Available †=Provisional ‡=Notional R=Revised

Current one US dollar equivalent (11 September 2008)

€: 0.718 £: 0.571 (1/1.751) Yen 106.5 NT\$: 32.06 Won: 1109.40 RMB Yuan: 6.85

Current one € equivalent (11 September 2008)

US\$ 1.392 £: 0.795 (1/1.258) Yen 148.3

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ECONOMIC, INDUSTRY AND PROJECT NEWS

Hurricane Ike slammed into Texas on 15 September causing widespread damage, flooding and power cuts. Petrochemical installations were stopped in preparation for the hurricane's landfall. Damage assessment continues to take place and the restart of operations make take some time, interested companies have said. Glycols and styrene monomer supplies have been most affected by the closures. Other UPR feedstocks have weathered the storms with no particular problems although phthalic anhydride plants were also affected by closures.

The **German chemical industry** has reduced its prognosis for the current year. According to the Association of the Chemical Industry, the industry is only expecting a production growth of 1% - previously 2.5% - following a flattening of growth in the second quarter. The Association is not forecasting a crash but a slowdown in response to the financial market crisis in the US and the lagging dynamics of the European chemical industry.

Ashland India Private Ltd (AIPL) has announced it has signed a Memorandum of Understanding with Natural Petrochemicals Private Ltd (NPPL) of Gujarat, India, to set up a manufacturing and marketing relationship. Under the proposed agreement, NPPL will manufacture Ashland's polyester resins and gelcoats in India. Ashland will use all of NPPL's production capacity. NPPL recently built a world-class facility to cater for Ashland's required production capability.

Babcock & Brown has announced the closing of financing and commencement of construction of its 79.5MW Majestic wind farm near Panhandle, Texas, northeast of Amarillo. The project is expected to finish construction and reach full commercial operation before the end of 2008. Babcock & Brown plans to construct at least 1,000MW of wind generation capacity.

Changzhou Xinri Chemicals, a Yabang Group invested company, has broken ground for a new complex in Changzhou Xinbei Industrial Park, Changzhou, Jiangsu province, China. This new plant includes a first phase of 250 ktpa styrene, 100 ktpa phthalic anhydride, 100 ktpa hydrogenation benzene, and 60 ktpa unsaturated polyester resins. Company sources confirmed that the UPR and phthalic anhydride lines will be started up in 2009. Yabang Group now has total of over 260 kpa UPR/alkyd resin capacity in its three holding companies located respectively in Niutang town, Changzhou, Jiangsu province, Zhangzhou, Fujian province and the Tianjin municipality.

Chimpex Industriale has signed a distribution agreement with Reichhold starting this month. Following the agreement, Chimpex acquires Reichhold Distribution's customers in Northern and Central Italy. The head office is in Parma, near Reichhold's plant.

China's **Jiangsu Fullmark** is planning to relocate its existing 50 ktpa unsaturated polyester resin plant from Huangtu town of Jiangyin, Jiangsu province, to Jiangyin Economic Development Zone of Jiangyin, Jiangsu province. Company sources confirmed that this new plant with a first phase of 80 ktpa UPR/aromatic polyester polyols capacity is scheduled to start up June 2009.

LM Glasfiber of Lunderskov, Denmark has announced the establishment of an international Center of Excellence through an agreement with Ris DTU, National Laboratory for Sustainable Energy, in Denmark. Under the agreement, LM Glasfiber will establish an R&D office that is expected to employ researchers by mid-2009. The researchers will be experts in advanced materials technology and aerodynamics.

UNSATURATED POLYESTER RESINS

North America

As crude retreated from the highs of over \$140/bbl hit in mid July and moved towards \$100/bbl and even lower in September, and UPR producers started to hope for some relief on raw material prices, Hurricane Gustav first and the much stronger Hurricane Ike, rocked US Gulf petrochemical installations mid September.

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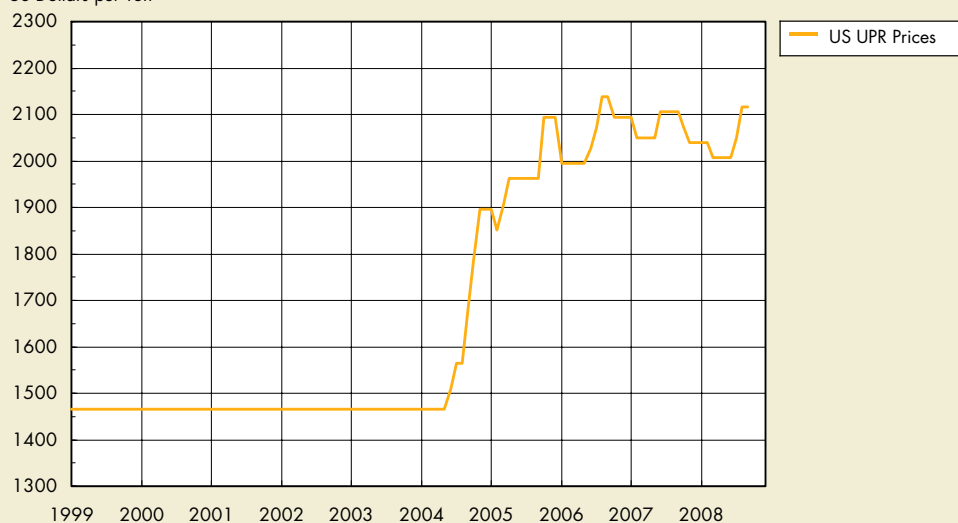
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**UNITED STATES
UPR PRICES**

US Dollars per Ton



Source: Tecnon OrbiChem

UNITED STATES UPR IMPORTS

	June 2008		Jan-Jun 08	Jan-Jun 07
	Tons	\$/Ton	Tons	Tons
Canada	3,575	2,428	21,285	25,747
Mexico	487	2,407	2,720	4,493
Brazil	135	3,715	806	1,135
Germany	144	-	751	900
United Kingdom	199	-	879	504
Taiwan	113	3,080	301	528
Japan	128	-	615	894
Others	225	-	1,298	2,069
Total	5,006		28,655	36,270

\$/ton figures are calculated from customs data and may not reflect market prices

**UNITED STATES UPR IMPORTS
(1,000 Metric Tons)**

Month	2006		2007		2008	
	2006	2007	2006	2007	2008	2008
Jan	6.0	7.2	4.4	2,315	2,637	
Feb	6.1	5.4	4.5	2,319	2,708	
Mar	6.9	6.6	5.1	2,399	2,643	
Apr	6.4	5.5	4.8	2,439	2,761	
May	7.3	6.6	4.8	2,396	2,772	
Jun	6.7	5.1	5.0	2,592	2,873	
Jul	5.3	5.3	-	2,551	-	
Aug	6.8	5.7	-	2,593	-	
Sep	6.0	5.0	-	2,429	-	
Oct	7.6	5.1	-	2,553	-	
Nov	5.6	4.7	-	2,454	-	
Dec	4.4	3.7	-	2,653	-	
Jan-Jun	39.4	36.3	28.7	2,403	2,734	
% Change	0.8	(7.9)	(21.0)	7.9	13.8	
Jan-Dec	75.2	65.8				
% Change	1.8	(12.5)				

\$/ton figures are calculated from customs data and may not reflect market prices

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**UNITED STATES UPR EXPORTS
(1,000 Metric Tons)**

Month	2006	2007	2008	2007	2008
				\$/ton	\$/ton
Jan	5.4	6.0	7.3	2,685	2,675
Feb	6.4	6.0	7.0	2,673	2,795
Mar	7.1	8.7	7.8	2,466	3,557
Apr	6.8	7.8	8.7	2,444	2,811
May	6.7	8.5	7.9	2,582	2,706
Jun	7.3	7.6	8.3	2,606	2,593
Jul	5.7	7.6	-	2,671	-
Aug	6.2	10.3	-	2,568	-
Sep	6.2	7.8	-	2,676	-
Oct	6.2	8.7	-	2,608	-
Nov	6.5	7.9	-	2,624	-
Dec	5.3	6.4	-	2,617	-
Jan-Jun	39.7	44.6	46.9	2,566	2,855
% Change	(7.5)	12.5	5.1	13.9	11.3
Jan-Dec	75.7	93.4			
% Change	(7.5)	23.3			

\$/ton figures are calculated from customs data and may not reflect market prices

UNITED STATES UPR EXPORTS

	June 2008		Jan-Jun 08	Jan-Jun 07
	Tons	\$/Ton	Tons	Tons
Canada	3,716	2,314	22,484	24,811
Mexico	2,278	2,456	9,539	7,857
Dominican Republic	112	2,208	400	91
Germany	235	-	1,456	5,400
Spain	403	1,824	1,879	53
Australia	117	3,908	992	200
India	197	2,324	495	38
China	160	3,928	1,775	1,876
Others	1,038	2,964	7,915	4,320
Total	8,256		46,935	44,646

\$/ton figures are calculated from customs data and may not reflect market prices

It was like that closed down styrene monomer plants before the hurricane made landfall in Texas, and that brought about widespread disruptions in deliveries of feedstock and logistics as well as production.

While it appeared prices of raw materials could have slipped a little early September, by mid month, styrene monomer was tight and rising in price again – see Styrene Monomer section below – as producers struggled to restart production.

Meanwhile there has been little change in the demand scenario for the US UPR market. Sales volumes continue to lag and some players speak of double-digit falls in volumes from January to September 2008 versus 2007.

The financial crisis that hit Wall Street on 15 September did very little to shore up confidence in a recovery any time soon as banks feel the strain of the subprime mortgage crisis and the whole global economy slows down. The market remains volatile at present and crude is also fluctuating widely.

The UPR sector remains in the doldrums as key applications fail to show any signs of recovery. The wind energy sector appears to be the only one showing any signs of increased activity.

On prices, confidence in a successful implementation of price increases is low in the marketplace. Prices suffered over the month of August and September due to lower demand and somewhat increased competition, which does not bode well for the remainder of quarter four.

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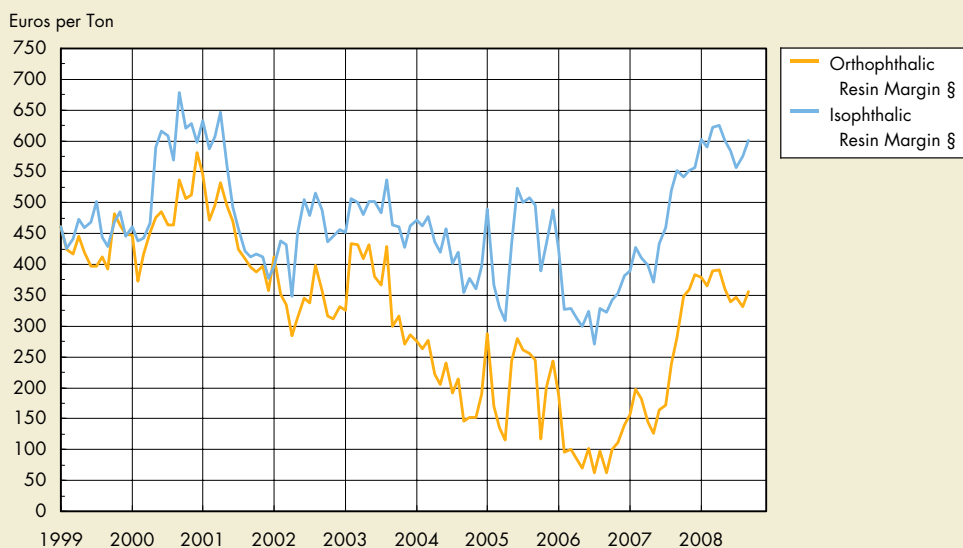
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Europe

The recently announced GDP contraction for the Eurozone has dampened enthusiasm around Europe as the region adapts to a more uncertain outlook for the remainder of 2008 if compared with the same period in 2007, particularly for the UPR sector, which traditionally amplifies GDP trends.

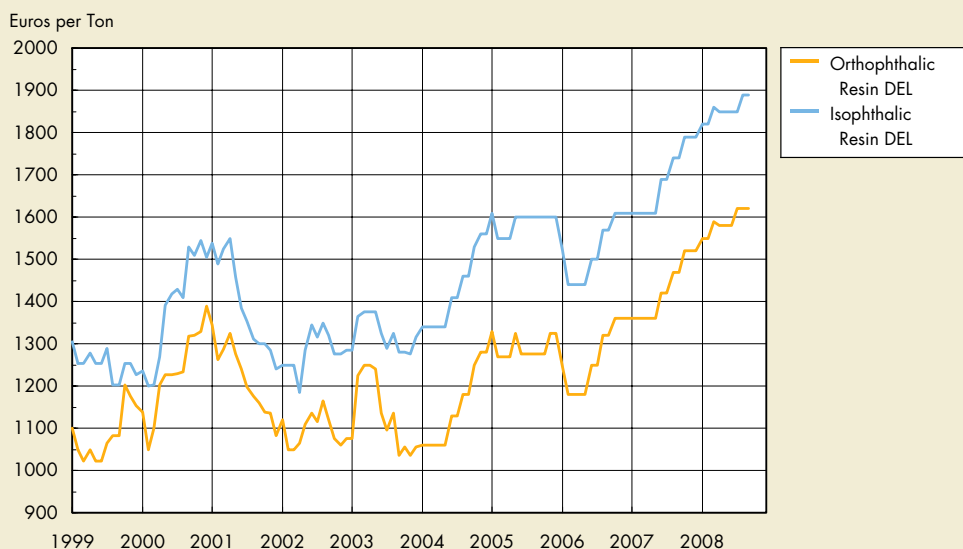
Players said they expect the recent weaker crude oil price trend to be reflected into lower raw material prices in quarter four and some prices have started to show a lower profile such as phthalic anhydride and MEG.

WEST EUROPEAN UPR RESIN MARGINS over MAIN RAW MATERIALS COSTS



Source: Tecnon OrbiChem

WEST EUROPEAN ORTHOPHTHALIC and ISOPHTHALIC RESIN PRICES



Source: Tecnon OrbiChem

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Maleic anhydride price negotiations have not yet started and will be carried out early October. Butane prices have weakened on the back of lower energy but no positions have been made clear by producers so far this month.

UPR producers say they keep struggling with volumes and that September did not offer much relief from a slow August. There has been no real progress on pricing except for the small increases achieved in July, which were, however, very far from the original increases targeted by producers. Some competition for volumes has been noted and may increase further out into quarter four.

Middle East and Africa

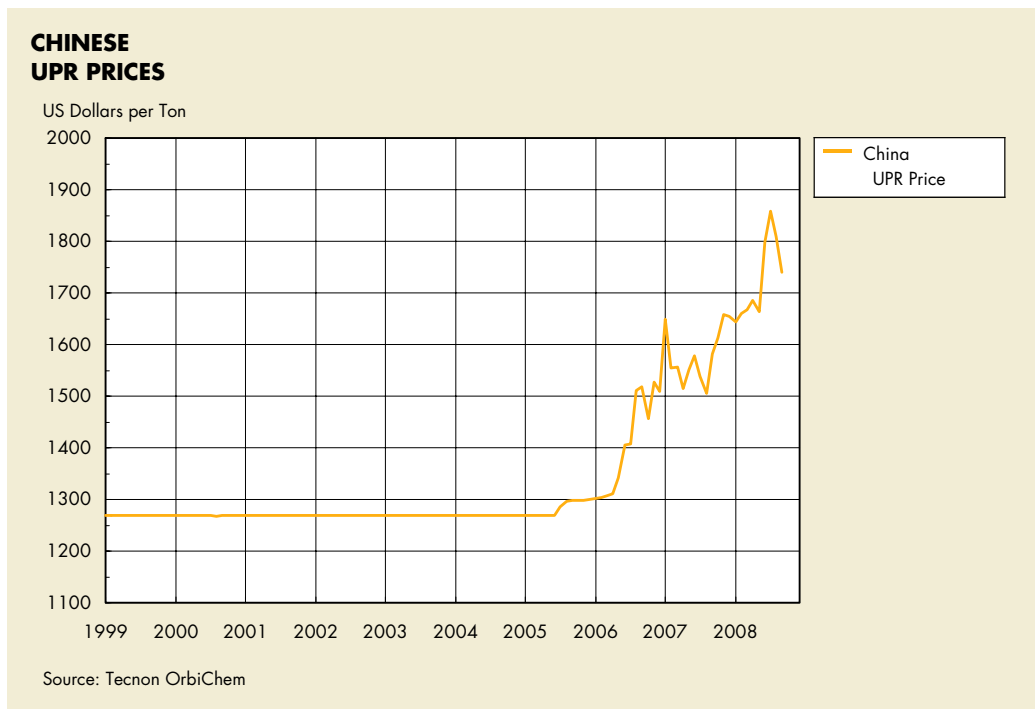
Demand has slumped this month compared with August in the region according to local sources, as end users wait for raw material prices to become lower following weaker crude prices before the wild fluctuations of the week started on 22 September.

Financial turmoil, lower raw material prices and uncertainty about economic prospects, have all contributed to a much lower demand profile. Prices have also slumped. Local sources speak of a 10% price cut in September from levels of \$2200-2250/ton DEL in August to around \$2000/ton DEL this month. Production has been reduced to meet the new market conditions. At this stage, local sources say they expect a difficult quarter four.

China

Unsaturated polyester resin prices have continued to slide in September as major feedstock values decreased dramatically due to declining crude oil numbers. By 24 September, general purpose UPR ex-works prices had dropped by Rmb300/ton to a range of Rmb11400-12000/ton (\$1670-1760/ton), compared with the same period last month.

Though crude oil values began to rebound week starting 22 September, this did not impact UPR feedstock prices immediately. Further erosion of UPR prices and of feedstocks could not be excluded at writing time. On the other hand, though UPR price decreases have continued this month, UPR producers felt less cost pressure as erosion on feedstock numbers was more severe.



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Unsaturated polyester resin demand remained flat in September. Decreasing feedstock prices helped demand for low and medium-end UPR products pick up slightly as it is more sensitive to feedstock price developments. High-end UPR markets, such as the automotive and housing sectors, however, remained flat as they are usually based on long contracts and are more related to national macroeconomic policies.

There was no typical pre-buying activity in anticipation of the upcoming National Holidays. UPR prices have continued to move down. Most downstream producers or market players were not very clear how far this round of price decreases will go. As a result, they only purchasing according to their needs at present.

Turning to supplies, in North China, as all restrictions on dangerous chemicals' transportation and production linked to the Beijing Olympic and Paralympic Games have been gradually loosened, most UPR producers have gradually brought their plants back to normal operating rates of around 80%.

**CHINESE UPR EXPORTS
(1,000 Metric Tons)**

Month	2006	2007	2008	2007 \$/ton	2008 \$/ton
Jan	1.7	2.3	2.1	1,750	2,043
Feb	1.6	1.4	1.0	1,780	2,099
Mar	2.5	2.4	1.7	1,710	2,252
Apr	2.5	2.7	1.6	1,724	2,068
May	2.3	2.3	1.5	1,770	2,112
Jun	1.7	2.2	1.7	1,832	2,095
Jul	1.7	1.9	1.5	1,832	2,413
Aug	2.0	2.3	-	2,024	-
Sep	1.8	3.2	-	2,040	-
Oct	2.0	3.2	-	2,084	-
Nov	2.8	2.5	-	1,972	-
Dec	2.4	1.1	-	2,087	-
Jan-Jul	14.1	15.3	11.2	1,767	2,150
% Change	16.9	8.9	(26.8)	18.5	21.7
Jan-Dec	25.2	27.6			
% Change	16.4	9.8			

\$/ton figures are calculated from customs data and may not reflect market prices

**CHINESE UPR IMPORTS
(1,000 Metric Tons)**

Month	2006	2007	2008	2007 \$/ton	2008 \$/ton
Jan	7.7	8.7	5.0	1,372	1,887
Feb	7.2	5.4	3.7	1,406	1,922
Mar	8.1	7.2	4.8	1,636	1,891
Apr	8.6	8.8	5.3	1,495	1,924
May	9.0	7.6	5.1	1,487	1,754
Jun	8.1	7.3	5.2	1,499	1,887
Jul	7.8	7.2	5.8	1,605	2,052
Aug	8.9	6.8	-	1,664	-
Sep	7.2	6.0	-	1,592	-
Oct	7.0	5.6	-	1,592	-
Nov	8.2	6.5	-	1,711	-
Dec	10.0	6.3	-	1,608	-
Jan-Jul	56.4	52.2	35.0	1,499	1,905
% Change	(13.1)	(7.5)	(32.9)	16.2	27.1
Jan-Dec	97.7	83.3			
% Change	(14.3)	(14.7)			

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In South China, except for some major producers such as Futian Chemical, which continued to run their plants normally, most small and medium-sized UPR plants were only operated at around 50% due to flat demand.

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In East China, major producers, which either have a comprehensive product portfolio or focus on high-end UPR products, such as Jiangsu Yabang, Jiangsu Fullmark and Changzhou Huari New Chemical, all ran their plants normally.

UPR

North America

Some producers continue to hold a somewhat pessimistic attitude towards UPR production and consumption in 2008. They think UPR production in 2008 may decrease by at least 10% due to tightening credit policies, competition from other composite materials, stricter control on environmental protection and safety and poorly performing export conditions for final products.

Europe

Middle East & Africa

China

South Korea

Though China started to give some relief from the tightening credit policy to small and medium-sized companies in September, it appears these concessions alone cannot bring substantial recovery to the UPR industry in 2008.

Taiwan

MALEIC ANHYDRIDE

North America

However, some other producers commented that the UPR industry can still enjoy a certain growth in 2008 as China's economy continues to power ahead. Under the circumstances, some small plants may vanish and not meet the challenges of the current market but the majors will be able to cover their share through product innovation or expansion.

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South and South East Asia

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South Korea

South Korea

The market is worsening in South Korea and in Asia in general. Korean producers said that not only did they not succeed in the implementation of the announced \$150/ton increase for September but they are struggling to keep prices stable as some players are offering competitive prices to gain volume in October. The situation is described as 'very painful' at present.

PHTHALIC ANHYDRIDE

North America

End users are still waiting to place orders as they believe prices will come down next month and therefore the market is inactive at a time when demand gradually fizzles out in the fourth quarter. Producers have aligned production with demand. Export demand is also down, with China and the US proving to be difficult markets.

Europe

Asia

DI- & TRI-ETHYLENE GLYCOL

North America

The domestic market has shrunk due to the economic slowdown and the impasse on export markets and these factors, coupled with lower raw material prices, is likely to push prices down from the current levels of \$2100-2200/ton DEL next month.

Europe

China

MONO-ETHYLENE GLYCOL

North America

Taiwan

Europe

Middle East and Africa

September unsaturated polyester resin pricing in Taiwan moved down by NT\$2.0/kg compared with August pricing to a range of NT\$53.0-58.0/kg (\$1660-1815/ton) for general-purpose products due to decreasing crude oil/feedstock numbers and poor export and domestic demand.

South Korea

China

Taiwan

UPR producers have adjusted production according to their orders. Since major chemical products' prices appear to be on their way to decreasing again in October, UPR downstream producers had no strong purchasing plans this month based on sufficient inventories.

MONO-PROPYLENE GLYCOL

STYRENE

North America

UPR prices for export also eroded in September to reflect a lower Asian market and sliding feedstock numbers. By 24 September, they had fallen off to a range of \$1830-1900/ton fob Taiwan, showing a decrease of \$50/ton compared with the same period last month.

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**Taiwanese UPR Production
(1,000 Metric Tons)**

	2004	2005	2006	2007	2008		
ECONOMIC, INDUSTRY AND PROJECT NEWS	Jan	16.3	16.4	14.0	15.7	15.0	
	Feb	17.5	9.8	10.7	7.2	8.7	
	Mar	14.9	16.8	13.5	16.5	15.4	
	Apr	19.8	10.8	13.8	14.6	13.5	
	UPR	May	14.0	11.3	16.7	16.1	15.6
	North America	Jun	15.8	16.7	11.9	13.8	14.8
	Europe	Jul	18.3	14.2	12.7	12.4	13.2
	Middle East & Africa	Aug	16.9	14.9	14.1	13.7	
	China	Sep	12.1	15.4	10.9	13.5	
	South Korea	Oct	13.5	13.5	12.5	15.7	
	Taiwan	Nov	11.0	13.6	14.9	14.6	
		Dec	13.8	14.6	16.7	14.8	
MALEIC ANHYDRIDE	Jan-Jul	116.7	96.0	93.3	96.2	96.1	
	% change	1.5	-17.7	-2.8	3.1	-0.1	
	North America	Jan-Dec	184.0	168.0	162.3	168.5	
Europe	% change	-12.7	-8.7	-3.4	3.8		

Source: Ministry of Economics Affairs of Taiwan

South and South East Asia
China
Taiwan
South Korea

**Taiwanese UPR Exports
(1,000 Metric Tons)**

	2006	2007	2008	2007 \$/ton	2008 \$/ton		
PHTHALIC ANHYDRIDE	Jan	7.8	9.8	9.4	1584	1792	
	Europe	Feb	6.8	6.3	8.1	1600	1818
	Asia	Mar	8.7	11.0	10.0	1616	1849
		Apr	8.7	9.9	10.5	1635	1849
DI- & TRI-ETHYLENE GLYCOL	May	9.9	10.9	11.1	1630	1882	
	North America	Jun	9.2	9.5	11.7	1694	1920
MONO-ETHYLENE GLYCOL	Europe	Jul	8.5	9.2	9.1	1683	2023
	China	Aug	9.5	10.2		1707	
MONO-ETHYLENE GLYCOL	North America	Sep	6.9	9.3		1728	
	Europe	Oct	8.4	11.1		1737	
MONO-ETHYLENE GLYCOL	North America	Nov	9.4	10.0		1765	
	Europe	Dec	10.5	10.2		1789	
MONO-ETHYLENE GLYCOL	Middle East and Africa	Jan-Jul	59.5	66.6	70.0	1635	1876
	South Korea	% change	3.3	11.9	5.1	14.8	14.8
MONO-ETHYLENE GLYCOL	China	Jan-Dec	104.2	117.4		1681	
	Taiwan	% change	3.4	12.6		12.7	

Source: Ministry of Economics Affairs of Taiwan

MONO-PROPYLENE GLYCOL

MALEIC ANHYDRIDE

STYRENE

North America

North America

August business was slower than July but volumes were in line with expectations for the time of year, according to producers. The market was generally described as lacklustre at best by both sellers and buyers.

Europe

Asia

On pricing, monthly contracts are understood to have taken on an extra 3-4 c/lb overall across the board for August - taking monthly prices to around 84-85 c/lb for August at the lower end of the range - and one producer is asking for further increments of 1.7 c/lb dated 1 September. August butane prices were seen averaging lower than July and at this stage the October price outlook is not yet clear, but it could see a reduction of monthly prices back to levels negotiated for quarterly contracts, depending on what agreements are in place between sellers and buyers.

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Therefore, this move to monthly price increments appears to have been a temporary one, dictated by extraordinary pressure coming from a very volatile n-butane environment.

It may be possible that producers will decide to abandon recent efforts to link maleic anhydride prices to butane-related formulas. At this stage the market appears to be awaiting further developments.

Europe

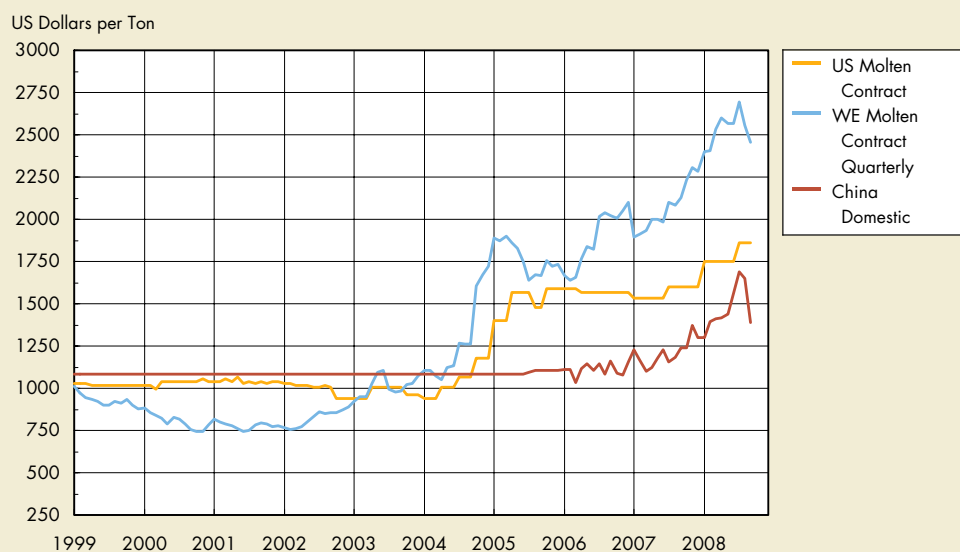
The market reopened on 25 August after the long seasonal holidays and it was reported as quiet as August and early-September volumes were covered. Activity was expected to resume in South European countries in September as end-user factories ramp up production. As regards maleic anhydride supplies, they are deemed to be adequate to current levels of demand. Shutdowns planned for August have finished but more planned maintenance is due to take place going into quarter four end September into October for 10 days connected with a planned site maintenance in Belgium and in November in Germany. These are planned shutdowns, therefore there should not be any major impact on supplies from today's perspective.

The outlook for the market will depend on several factors, as well as economic performance. The US dollar/Euro ratio has changed trajectory, theoretically making imports less attractive, however, other events such as the implementation of newly-approved anti-dumping legislation in India may influence the market going forward. Feedstock prices will remain a key issue.

South and South East Asia

Demand is stable in the region with India continuing to be at the forefront of consumption of maleic anhydride although some predict the economy may slow a little in the next few months because of inflationary pressures and widespread power shortages in the country. Production of maleic anhydride in the region is reported to be largely stable but they say that buyers are purchasing minimum quantities in anticipation of lower prices in September. Chinese product, notable for its absence over the past two months, has appeared again this month as transportation checks are eased with the Olympic Games coming to a close. Prices for export have dropped dramatically compared with July and are coming into the region at below \$1600/ton cif South East Asia. The Middle East is slowing down in anticipation of Ramadhan, which will affect working hours in most countries. Turkey has also been affected by the seasonal holidays. The Indian government approved on 22 August anti-dumping measures against imports of maleic anhydride originating from China, Indonesia and Taiwan. The Ministry of Commerce has set anti-dumping duties at \$83, \$94 and up to \$204/ton for Chinese product and \$54/ton and \$23/ton for Indonesian and

**UNITED STATES, WEST EUROPEAN AND CHINESE
MALEIC ANHYDRIDE PRICES**



Source: Tecnon OrbiChem

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Tawainese material respectively. Notification to customs in India is under way. The investigation had originally started in February 2007.

ECONOMIC, INDUSTRY
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China

Export maleic anhydride prices out of China slumped in August due to the continuing slide of crude oil values and poor demand. By early September, export prices had eroded from a range of \$1700-1730/ton fob in early August to a range of \$1450-1500/ton fob China main port. Exports in July were 9.5 kt this year, even with 9.1 kt in July 2007. However, exports from January to July in 2008 only showed increase of 9.4% over the same period last year. Export volumes in August were estimated to be low given the restrictions on product transportation within China during the Beijing Olympic Games. The preliminary outcome of anti-dumping investigation by India on maleic anhydride originated from China, Chinese Taipei and Indonesia was published in August. According to the notification, dated 22 August 2008, \$82.35-203.61/ton of anti-dumping duty was imposed on exports of maleic anhydride from China to India.

Taiwan

Taiwan August pricing for maleic anhydride rolled over in the range of NT\$58-60/kg (\$1905-1970/ton) for flake and NT\$57-59/kg (\$1870-1940/ton) for molten product. As for maleic anhydride supplies in August, both UPC and Excel reported normal operating rates. Domestic demand in August was very flat as downstream producers were expecting pricing to decrease in September. September pricing, considering the decreased crude oil and n-butanol values, downward Asian maleic anhydride numbers and flat demand, was seen lower by NT\$3.0-5.0/kg. If NT\$4.0/kg down, maleic anhydride pricing is seen settling at NT\$54.0-56.0/kg (\$1705-1770/ton) for flakes and NT\$53.0-55.0/kg (\$1670-1740/ton) for molten products.

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Meanwhile, export maleic prices also fell early September to \$1660-1700/ton fob. Sources did not exclude further prices decreases.

PHTHALIC ANHYDRIDE

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Production of maleic anhydride is stable but volumes remain under pressure as the market is still in start-up mode after the summer holiday. Also increasing the pressure on the market, is the fact that end-users are delaying their purchases as they expect maleic anhydride prices to decrease this month on the back of lower energy and butane prices.

DI- & TRI-ETHYLENE GLYCOL

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MONO-ETHYLENE GLYCOL

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North America

In a dull US phthalic market, some sources are now estimating 2008 demand to be running at as much as 8-10% down on last year, with the most significant drop in the unsaturated polyester resin sector.

During September, pricing at liquid phthalic accounts has fallen back 5.5 c/lb in line with the drop in July's 64.5 c/lb orthoxylyene contract to the finally agreed 59.0 c/lb number for August (see last newsletter). At present, medium sized accounts (around 10 mmlbs/year) are paying about 72.5 c/lb, larger accounts (over 15 mmlbs/year) are at say 71.5-72.0 c/lb and smaller accounts (below 5 mmlbs/year) at 73.0 c/lb plus. US origin flake is selling in broadly a 72-75 c/lb range (up to 76-77 c/lb mentioned at the top end), with little being heard at present of Mexican product. Phthalic pricing in general will fall back a further 1.0 c/lb in October in line with the September settlement of the orthoxylyene contract at 58.0 c/lb, down from August's 59.0 c/lb.

MONO-PROPYLENE GLYCOL

STYRENE

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Europe

Looking at pricing, liquid phthalic accounts paying on a formula basis have automatically fallen back in September with the Euro60/ton drop in the orthoxylyene contract. With spot/market pricing for liquid phthalic also coming off over the past couple of months, in line with decreases in the orthoxylyene price, end-users whose phthalic pricing is partly based on orthoxylyene and partly on phthalic market price have

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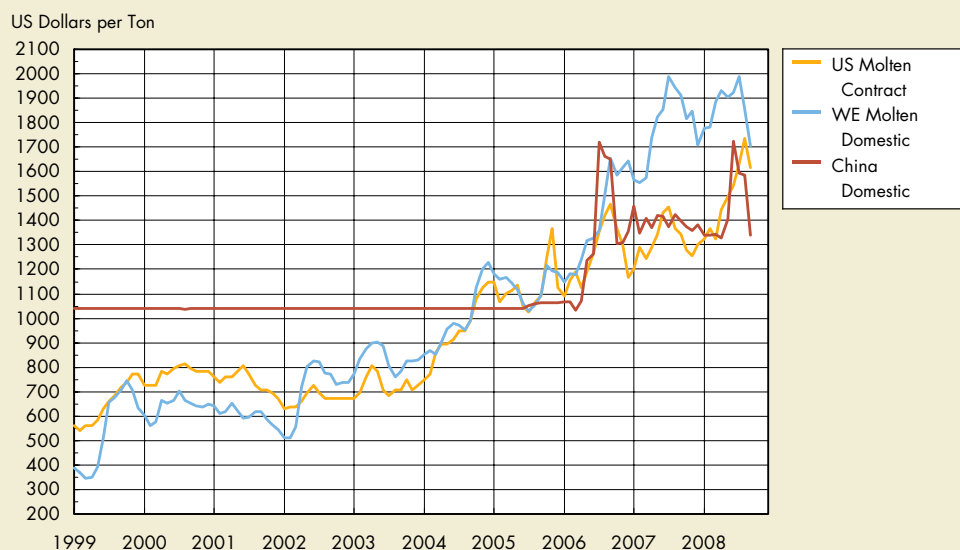
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**UNITED STATES, WEST EUROPEAN AND CHINESE
PHTHALIC ANHYDRIDE PRICES**



Source: Tecnon OrbiChem

probably come off around Euro40-50/ton in September to a Euro1125-1175/ton range (a Euro1140-1150/ton average mentioned). Meanwhile, for the relatively small percentage of total liquid phthalic sales in Europe where freely negotiated pricing applies, customers taking maybe 60-70 tons a month are now believed to be paying prices close to those calculated by formula – or a little above in the higher Euro1100's/ton – as phthalic pricing falls along with the drop in orthoxylene.

Asia

As a result of poor demand and sliding feedstock values, by the run-up to mid-September ex-works phthalic anhydride prices in China had fallen off by as much as Rmb1400/ton compared with later August numbers of Rmb10700-11000/ton, to an Rmb9300-9600/ton (equivalent to cif import prices at \$1090-1125/ton) range. (Then by late in the week 15 September they had fallen back further to Rmb9000-9300/ton). Market prices for phthalic anhydride have been in the range of Rmb9200-9700/ton, with product originating from South Korea settled at Rmb10100-10300/ton. Phthalic demand from both the phthalates and UPR sectors has remained flat in September.

DI- & TRI-ETHYLENE GLYCOL

North America

DEG availability in the US continues to be very tight. The impact of the hurricanes in late September only heightened an already severe shortage. As MEG demand in the US has been quite sluggish over the past few months and margins quite thin, production has been slowed and this has resulted in reduced output for DEG and TEG, as well. Force majeure declarations from most major suppliers on EO and glycols also applied to DEG. MEGlobal has customers on 100% allocation, in fact no change from the status before the hurricanes. Shell also has customers on force majeure. Old World was understood not to have a force majeure on but this could change.

Old World and Equistar announced price increases of 8c/lb and 7c/lb, respectively, on DEG for September. Implementation has been spotty as other producers did not announce for September.

By the time producers were beginning to look at October pricing, the ravages of the hurricanes meant that price increases seemed essential.

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We are showing a partial increase on DEG prices for September, based on this tightness. MEGlobal announced a price increase of 3c//lb on DEG for October, which would bring the company's benchmark to 68c/lb.

While DEG demand in the US is still slow and shows no sign of early recovery, price increases are a result of supply issues, which are severely restricting availability.

The tight market and higher prices have attracted at least one small cargo from Asia. A 3000-ton cargo is reported booked from Asia to the US loading in late September. It seems unlikely that this business would be repeated, given the long shipping time to the US market, where supply issues should be resolved within the next two weeks and normal availability might be attained within October. The major incentive in doing the business for the seller in China is said to be the influx of cash this brings to a cash short market.

TEG supply has been cut dramatically by the shutdowns around Hurricanes Gustav and Ike. Prices have responded to the resulting shortfall. Old World had announced an increase on TEG of 10c/lb for September, as the company was already short in its system. The considerable tightening of the market since this announcement was made has lent strength to the argument that prices should go up. As a result, we are showing some increase in TEG prices for September, although not of the magnitude of what was announced by Old World.

Europe

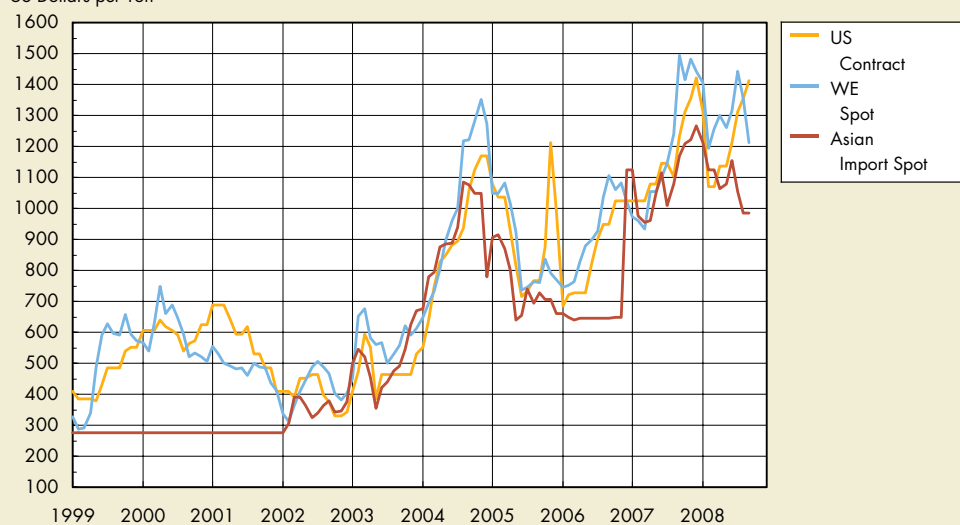
As in other regions, the sluggish MEG market has meant reduced output of glycols generally, including DEG. This reduction in supply, combined with potential requirements from the US, has lent some strength to the European DEG market, despite a slow demand scenario here, as well. The slow-down in construction has pushed back demand for DEG in Europe, although producers still report regular offtake.

Product that had been mooted for export from China to Europe has apparently been booked to the US instead as US prices have responded with significant increases to the supply constraints resulting from the onslaught of two hurricanes in as many weeks.

Dow declared force majeure on TEG in Europe, in light of the problems the company has had with production and logistics in the US in the wake of the hurricanes, Gustav and Ike, which hit the US Gulf coast in early September. Prices for TEG in Europe were reported at levels over Euro 1300/ton, but this has not yet been confirmed. Clearly these prices have increased as a result of the shortage in the US, however temporary this may be.

**UNITED STATES, WEST EUROPEAN AND CHINESE
DEG PRICES**

US Dollars per Ton



Source: Tecnon OrbiChem

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China

The DEG market this month has been much more resistant than MEG to the downward pressure of sluggish demand. Import spot prices are reported to be relatively stable compared to the previous month at around \$980-990/ton. Downstream UPR markets are still weak along with polyester markets with operating rates at around 60%.

Domestic prices are estimated at around Rmb7800-7850/ton, a Rmb100-150/ton decrease compared to the previous month. Some DEG traders mentioned increasing MEG stocks might dampen DEG markets if MEG inventories are not absorbed by polyester producers. On the other hand, MEG output has already been slowed at several sites.

DEG inventories have decreased slightly in China, following a reduction of supply, according to DEG traders. The potential oversupply situation was also relieved by cargoes shipped from Asia to US by traders benefitting from higher prices in the US and Europe. A 3000 metric-ton deal was reported mid-September from China to the US at around \$1030/ton fob China Main Port.

UPR producers are affected by the same factors as those impacting polyester producers. Downstream UPR markets depending heavily on export have been hit by the Yuan appreciation, the slow down in overseas demand and rising production costs, which have dampened operating rates. The Olympic Games in Beijing in August and the Para-Olympics in September put pressure on UPR producers, especially in the North of China where downstream factories had to shutdown due to severe restrictions on transportation of dangerous goods during the games.

MONO-ETHYLENE GLYCOL

North America

Details were patchy on operations on the US Gulf coast but it was clear that all the major EO/EG units had been down at some point and most producers had force majeure declarations in effect, with the notable exception of Old World, according to sources.

MEGlobal declared force majeure on MEG on 4 September and placed customers on 70% allocation, based on the average offtake of the previous seven months until further notice. The declaration was based on the shut-down of Dow's EO/EG supply and subsequent force majeure after Plaquemine and Taft were shut down ahead of Hurricane Gustav. Dow's EO unit at Plaquemine suffered little damage and was restarted by 19 September. The Taft EO/EG plants were still down at this time. Seadrift was idled ahead of Hurricane Ike and was still down also but both plants were restarting by 24 September.

MEGlobal has dropped its price for September to 60c/lb. The company has also announced a 5c/lb increase in the price for October but placed a 5c/lb TVA, which will mean the price is at a rollover level for October but can go up should the market situation warrant this. Shell has not announced any price increase for October as of 17 September but neither had it lowered prices for September. It was not clear exactly what the other producers were doing on price for October. September pricing is seen more or less at a rollover level, at the higher end of nominated prices since no increases were announced for September. A drop in price for customers of MEGlobal is expected to be seen only at limited accounts and within the range reported (before discounts).

Damage due to Hurricane Ike was relatively contained, according to sources. PD Glycols was understood to have sustained some damage due to flooding at their East Texas site. Old World was reported to have minor damage at its cooling tower at Bayport. This has made the company short. The tolling arrangement with Huntsman has also been compromised as Huntsman has force majeure on EO and derivatives, including MEG. Huntsman was down until at least 18 September, when the company was understood to be in the process of restarting at Port Neches. Old World had not declared force majeure on EO or glycols, according to customers, but may have on anti-freeze. Old World was said to be looking to buy around 10kt in the open market in September.

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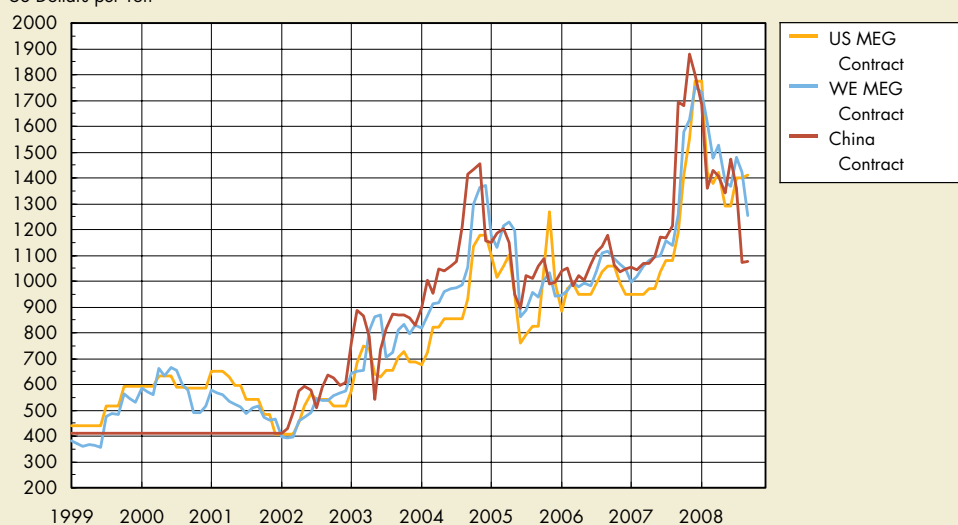
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**UNITED STATES, WEST EUROPEAN AND CHINESE
MEG PRICES**

US Dollars per Ton



Source: Tecnon OrbiChem

Disruption due to the impact of the two storms was enormous, despite the limited damage reported. Power was cut to over 90% of Houston customers after Ike hit on 12 September. There were still many customers without power on 19 September and it was expected that it would take around two weeks to resume normal operations at refineries and crackers in the Houston area. This of course came on top of the disturbance caused to Louisiana facilities around the time that Hurricane Gustav hit this area. All the major EO producers were shutting down in advance of Gustav and were not back up and running by 23 September.

Logistics was a major issue even for those with power. The Houston Ship Channel was closed from the time of the Hurricane until at least 18 September, when the channel was reopened. Damage to the Texas City Oiltanking terminal continues to interrupt some export business, according to sources among the company's customers.

Spot prices in the US market are clearly increasing but there is not much product available. The firming of prices in the US glycols market comes at a time when MEG prices were expected to fall based on new output in the Middle East and Asia and lower prices in Asia have already been seen, partly as a result of this. The disturbing downtrend in the global economy appears to also be making a big dent in demand for polyester in key production areas, such as China and Taiwan. Demand for fibre intermediates, including MEG, into China is very low indeed and stocks are very high.

In the US, however, the market was firm, mainly due to supply issues. Demand here, too, was weak into PET and into other applications. Spot prices were reported up around 5c/lb in September at around 60c/lb and climbing. At the same time, the Asian netback price was calculated for September at around 47-48c/lb and for October the same price quotation would be around 41c/lb. This is a theoretical level, which may have limited importance in the day-to-day market, but the divergence from the US domestic market underlines the split between the US and Asian trends, particularly, due to the specific supply problems in the US at the moment, which are driving up prices, independent of what is happening in the global market.

Europe

The European MEG market was in a rather confused state toward the end of September. In late August, an influx of material coming from Venezuela, Korea and elsewhere in Asia and arriving early October was threatening to push prices down dramatically. This effect has been muted somewhat by the incidence of two major hurricanes, which hit the US Gulf coast in the first two weeks of September. The requirement for material for the US may end up in 10kt being shipped from Europe to the US. This product could in

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theory be supplied from Asia to the US, but vessel space and timing mean that the European option makes much more sense.

ECONOMIC, INDUSTRY
AND PROJECT NEWS

Also in Europe, the supply of material for the European market in September has been limited by two shutdowns, which are just now coming to an end. Shell's Moerdijk plant was down for about three weeks, restarting 24 September. BASF's Ludwigshafen unit was expected to resume production after a three week outage on 29 September. This outage can have had little impact on the market as this is a very small glycols plant of around 27ktpa, but the EO outage usually means a reduction in the company's overall European glycols output. This also means the whole region is quite tight on EO, which in turn constrains overall MEG production.

UPR

North America

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Taiwan

In addition to the Shell and BASF outages, Clariant's EO and derivatives, including glycols, will go into turnaround toward the end of September, slightly earlier than originally planned, according to sources. Stocks in August were slightly above historical lows, according to sources amongst producers. This is partly as a result of a deliberate turn-down in MEG production due to poor demand in PET markets in Europe and partly due to EO downtime, which reduced effective MEG capacity.

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With the settlement of the ethylene contract price for the third quarter at Euro1120/ton, down Euro108/ton, MEG contract discussions for October were just beginning and buyers and sellers were comparing cost issues with Asian values for MEG. The September price was agreed at Euro875/ton, down from the August price of Euro940/ton. The Asian price for October has been announced down \$130-150/ton at \$1000-1020/ton.

PHTHALIC ANHYDRIDE

North America

Europe

Asia

Producers in Europe stress that factors such as cost and the recent very low margins on glycols must figure larger than the concept of parity with Asian prices in current contract discussions. Initial calculations suggested that a price of around Euro850/ton would be in line with cost considerations. In the meantime, some buyers say that Asian pricing for October suggests a European contract price for MEG at around Euro800/ton.

DI- & TRI-ETHYLENE GLYCOL

North America

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On the demand side, offtake has been reduced with several PET producers reporting reduced rates. PET operating rates in Europe were reported at around 70% of capacity in September. San Roque was understood to still be down.

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Middle East plant start-up schedules are having a big impact on the global MEG market and prices are responding to the start of new capacity already with the successful start of Equate II this month. On the other hand, Petro Rabigh is delayed from the fourth quarter of 2008 to the first quarter of 2009. According to unconfirmed sources, the reason for the delay is feedstock related and the MEG plant will be ready on time once sufficient ethylene is available. Storage is already in place for distribution of much of this product into China, according to traders.

The expected start-up dates for the new Middle East production follow below:

Equate II	Shuaiba, Kuwait	600	Q3 2008
Rabigh Refining & PC Co.	Rabigh, Saudi Arabia	500	Q1 2009
Yansab	Yanbu, Saudi Arabia	700	Q2 2009
Sharq IV	Al Jubail, Saudi Arabia	700	Q1 2009
Kayan Petrochemical Co.	Al Jubail, Saudi Arabia	550	Mid 2009
Morvarid	Assaluyeh (5th Olefin)	500	2010
Persian Gulf Petrochemical	Assaluyeh (12th olefin)	640	2012-2014

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It is not clear whether Yansab will now start in Q1 or Q2 2009, but this is already a delay from Q4 2008.

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Iran has had a patchy production record in the third quarter with the Bandar Imam unit down for all of July and part of August. Internal demand was consuming all Iranian production in late August/early September. Exports to Europe have been reported but this has slowed down due to the production problems.

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ORBICHEM ONLINE**South Korea**

The Korean market was lacklustre in late August and most of September. PET operating rates have been lower than normal in the last few months and this has pushed back supply, creating a long market. One polyester producer reports operating rates of around 75% for the last three months. This mirrors the Chinese market where inventories are at over 350,000 metric tons in September, according to sources, although rates in China are even lower. PET rates in Korea are higher at close to 90%, according to sources but even these are under downward pressure as demand is off and margins are squeezed.

On production, Lotte Daesan shut its old number 2 unit with a capacity of 120ktpa for a 3 week turnaround. This outage may help take some of the length out of the market. On the other hand, Lotte is running its new OMEGA unit at full rates due in part to supply contracts on feedstocks. The Korean contract price is reported for August at around \$900-920/ton. This price is part negotiated and part formula and is informed by the Asian contract price as well as referencing posted Asia spot prices for the month in question. The July Korean contract price has been revised based on conversations with market players and is assessed at around \$1070-1100/ton.

China

The lack of recovery in demand from the polyester downstream side in China and a huge MEG inventories at Chinese main ports have pushed MEG prices further down this month after falls seen already in August. MEG spot prices, after rebounding slightly at the end of August to \$870/ton, dropped further to \$780-790/ton at around mid-September, bobbing back up to around \$800/ton on 19 September. Between November 2007 and now, MEG prices have plummeted nearly \$900/ton in a dramatic decrease illustrating just how volatile the Chinese MEG market is. The MEG domestic spot market also saw prices drop from Rmb7000/ton last month to Rmb6700/ton in mid-September. Along with MEG, PTA spot prices are also on a dramatic downward trend, falling from \$1050/ton to \$820/ton this month.

Looking at the massive MEG flows coming soon from the Middle East plants, the Chinese market should be overwhelmed by MEG by early next year. Supplies have already increased considerably due to the start-up of the new Lotte Daesan plant and increasing supply from Sabic as this producer returns to normal output levels after the production difficulties which beset it from August 2007 when a crucial Al Jubail oxygen plant was taken down in an explosion.

Polyester producers operating rates are stagnating at around 60-70% now and so far no sign of recovery has been seen on the market. September is generally a low season for PET resin and bottlers. These plants are operating at around 60% at the moment. Some MEG producers mentioned that despite the decrease of orders especially from textiles factories, some polyester producers may have sufficient demand from the downstream to justify an increase in polyester operating rates but they face a lack of cash due to credit restrictions imposed by the government for the past few months in an effort to curb inflation.

MEG inventories in China have increased dramatically and are now estimated in the region of 350-400,000 metric tons in the region. Traders reported that some MEG could not be stocked due to a lack of tank facilities. MEG cargos could be seen moving from hand to hand, sold on the domestic market at a much less competitive price or stocked in smaller ports where there were still storage facilities. It was also reported that tanks normally allocated to other products such as benzene and styrene monomer were being used to store MEG. Polyester producers are not able to absorb the huge MEG inventories. It will take almost one month for them to absorb such a big inventory. Lower prices are expected in the next few weeks as a result partly of these high inventory levels.

Meanwhile, the drop in crude oil prices and subsequent rebound on 22 September also affected the entire chain of petrochemical products in Asia; mainly pushing prices of base chemicals like ethylene down along with feedstocks, although there have been some upticks as well and there may well be more. Ethylene prices in Asia are now around \$1100-1110/ton Cfr Northeast markets and most of the Asian crackers had to reduce their operating rates to avoid higher inventories.

Market players were hoping for a recovery of the market after the Olympics Games and a recovery of the demand. But it appears that the slow down of the demand and the bad news coming from the US and

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Europe on the financial crisis were the main causes behind the sluggish polyester market in China and not the restrictions imposed by the Chinese government in August.

ECONOMIC, INDUSTRY
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Polyester producers in China have been hit hard by the Yuan appreciation, which has dampened exports as opportunities are less attractive in dollar terms than they had been in previous months. Other factors play in as well, however. The slow-down in overseas demand and the export-tax rebate reduction decided last year by the government are also slowing down offtake. During this year, production costs have also increased significantly due to increasing energy costs and rising labour cost following the inflation in China and the new contract law introduced by the government in January 2008 that enforces contract regulation in the factories. The textiles factories, more labour intensive than many of the chemicals plants, are severely affected by the rising labour cost. The government increased in August the export-tax rebate from 11% to 13% to help the textile industry but it is not expected to have a significant impact as it will not compensate the entirety of the Yuan appreciation over the past year. Meanwhile, domestic demand has not picked up sufficiently to absorb all the new production, which has been introduced recently.

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For the third consecutive month, the three largest MEG producers, MEGlobal, Sabic and Shell, have reduced their MEG contract announcements for October to \$1020/ton, \$1000/ton and \$1020/ton, respectively, following the decrease in spot prices and the sluggish market situation.

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In Taiwan, polyester producers are also suffering from a slow-down in demand and polyester markets are very weak. On MEG production, CMFC restarted one of its 65ktpa MEG line at the end of August after a turnaround that started earlier than expected at the end of July. The other 65ktpa MEG line is actually shutdown until probably the end of September. The CPC N5 cracker is reported to be shut down, CPC N4 should shut down next month.

PHTHALIC ANHYDRIDE

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MEG prices in Taiwan have been very much affected by the dramatic drop of Asian ethylene prices to \$1100-1110/ton Cfr Northeast Asia in mid-September. Polyester operating rates are at around 50%. OUCG has decreased MEG operating rates to 50%, due to low MEG prices and a still very high ethylene contract price.

DI- & TRI-ETHYLENE GLYCOL

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The Taiwanese August MEG contract price was negotiated at around \$920-930/ton.

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The **US** MPG market was described as very tight by some players, with demand healthy. This may translate into higher prices when September business is negotiated. There have been some production issues related to Hurricane Gustav, with Dow's facility in Plaquemine, LA being adversely affected by the storm, where production was halted in advance of the onset of the hurricane. Hurricane Ike hit the area 15 September, with further disruption of supplies in preparation for landfall in the area.

In **Europe**, MPG remains strong. The supportive supply/demand scenario has already led to increases of an average Euro30/tonne at some accounts for September. This followed a price hike of around Euro70/tonne in August. September is expected to be a firm month, with quarter four traditionally strong in demand terms. One producer commented that sales of PG into the aircraft de-icing sector had been stronger during August than in the previous August, as manufacturers started buying in advance to store and blend in preparation for the de-icing season. The aircraft de-icing market was adversely affected by the mild winter last year. Repsol YPF's production problems at Tarragona, Spain during the summer led to a tightening of the European market which meant that other producers had to run plants to maximum capacity to keep in step with demand. MPG buyers said that current prices were reflective of the high crude price, rather than its recent decline, but expected that numbers would start to soften in September. Others expected that prices were more likely to remain stable during the last quarter of the year. One large buyer said that consumption had not fallen despite the deteriorating economic backdrop.

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Business in **Asia** has been ticking over, with demand steady amidst a tight supply scenario. Several producers are short of material, with one confirming that it has had to put customers on 100% allocation for the past three weeks. Latest bulk pricing stands at \$1800-1850/tonne EXW for industrial grade, whilst

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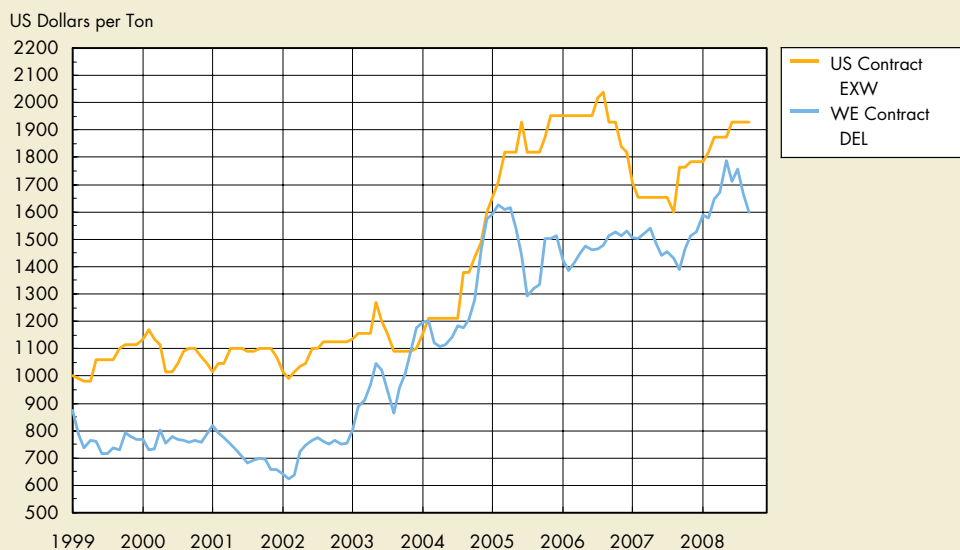
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UNITED STATES AND WEST EUROPEAN PROPYLENE GLYCOL PRICES



Source: Tecnon OrbiChem

pharmaceutical grade is selling at \$2100-2200/tonne. There is a strong feeling that numbers will move higher in September, with the impact of the globally tighter market becoming more apparent.

STYRENE MONOMER

North America

Contracts for August rolled over after a 3 c/lb increase in July, which was settled on the back of snug supplies and high production costs.

This month, spot prices have started to move up again, reacting to the closures and disruptions brought about by Hurricane Ike mid month. Spot numbers are up to 78-80 c/lb fob, compared with 73-74 c/lb a month ago. Material is short, players said and there is a pull for styrene monomer to hit US shores from Europe at present.

Hurricane Ike closed down around 680kt of styrene monomer capacity at Freeport, TX as a precaution. Although no widespread damage has been reported it is clear that it will take time to get all the plants in the area back to normal operations quickly.

Meanwhile, there is also planned maintenance taking place at Lyondellbasell at Channelview, TX and at Ineos Nova at Sarnia, Canada. Hurricane Gustav had previously shut down Louisiana's America Styrenics' production.

Clearly, all these closures, whether planned or unplanned, have tightened up the market and markets will remain in this situation until production is fully restored at the larger sites.

Some polymer sites have also been affected by the lack of feedstock availability or by logistics issues and have declared force majeure or put customers on allocation. Baytown, TX was affected adversely and BMS declared force majeure on ABS amongst other things.

Europe

Contracts for September settled lower compared with August driven by lower energy and benzene prices. Styrene FCA contracts settled down by Euro40/ton at Euro 1250/ton, while three barge contract settlements were achieved at Euro 1230- Euro 1250 and again Euro 1250/ton, yielding an average of Euro 1243/ton, Euro32/ton down on August contracts.

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Benzene settled for September Euro70/ton lower compared with August, dragged down by a reduction in crude prices and slower demand from key derivatives.

Styrene spot prices by mid September were reported at \$1370-1470/ton, down from the mid \$1600c/ton reported late August, following the sharp slide in crude and benzene values over the first half of September. No buying interest was reported and poor demand from polymers continued to plague the market overall at the time.

However, during the second half of the month, spot prices shot upwards following the sharp increase in crude oil prices on 22 September and the opening of an arbitrage to the US. By 22 September, spot prices had increased again to \$1550-1600/ton and players were working cargoes into the US, where product remained tight due to the disruptions caused by Hurricane Ike. South America is also proving an interesting outlet for European product at current prices. By 26 September, spot prices had retreated to \$1450-1480/ton.

The market is generally viewed as weak overall and BASF's announcement that it will cut polystyrene production in Europe by 25% is adding to concerns over the health of the styrenics chain.

Asia

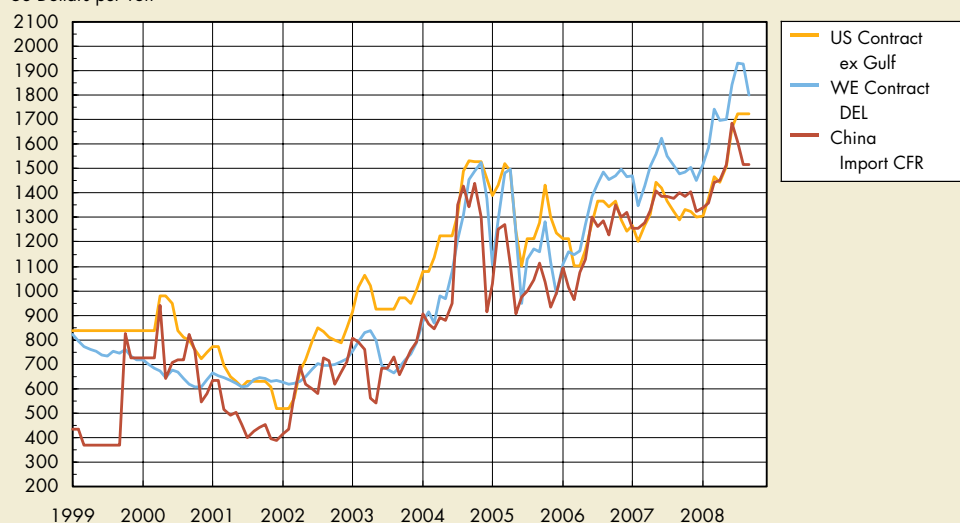
Asian styrene prices held steady in second-half August before again tracking down in first half September in parallel with upstream crude oil and benzene prices. Production cutbacks have continued in the last month in an attempt to maintain regional balances and to mitigate poor operating economics, but markets remain exceptionally quiet.

Offers were reported at \$1380-1400/ton fob Korea on 19 September, down almost \$100/ton from late August and early September levels and \$200/ton lower than late July prices. Deals for October shipments were reported done at \$1380/ton fob Korea on 18 September, up a little from the \$1330/ton fob Korea reported agreed two days earlier, but \$90/ton lower than deals reported in mid-August. Notional cfr market prices were assessed at \$1390-1410/ton cfr China on 19 September, down from \$1460-1480/ton cfr China a week earlier, and \$1510-1520/ton cfr China in mid-August.

The Chinese domestic market has mirrored the regional trends, rebounding a little in late August to around Rmb12,300-12,400/ton ex-works but then weakening steadily in first half September to Rmb10,900-11,000/ton ex-works on 19 September.

**US, WEST EUROPEAN AND ASIAN
STYRENE CONTRACT PRICES**

US Dollars per Ton



Source: Tecnon OrbiChem

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The key influences shaping the current poor market conditions have prevailed throughout most of the third quarter. While cost push – or, since mid-July, loss of cost push - has continued to be an important factor in the market, the bigger concern since late June has been the lack of demand. In a typical year, this is the peak demand season as regional processors work to fulfill pre-Xmas orders from major Western markets. This year it has simply not happened.

ABS and polystyrene operating rates have been cut across Asia, and particularly in China, as processors find themselves with weaker-than-expected order books and facing polymer prices that they have no hope of passing on to end users. Although ABS and polystyrene producers had been relatively successful in pushing prices higher for more than two months, in line with surging styrene and benzene costs, the upward momentum lost steam in mid-July as oil prices dropped sharply. Polymer prices have eroded, and markets have continued quiet and uncertain in recent weeks as players waited for direction.

Hopes during August that measures imposed during the Olympics in China had artificially constrained petrochemical and downstream markets, and thus that the situation could improve during September, proved unfounded by the end of August, as it became clear that the loss of momentum since July reflects a serious and potentially long-lived erosion of downstream demand.

Order books are understood to be weak at the end-user level, reflecting worsening economic news worldwide and the slowdown in consumer buying in key markets from the US, to Europe and Japan. In addition, plastics processors are struggling to deal with soaring costs.

High polymer prices are one issue, and have clearly played a role since early July in bringing downstream demand to a near halt, but at the same time an indirect effect of continuing high crude oil pricing has been escalating energy and transportation costs. In the case of Indonesia, Malaysia and China where longstanding fuel subsidies have been sharply reduced or removed in recent months, the impact has been even harsher.

Balancing supply and demand has become an increasing issue for benzene and styrene producers across Asia as poor downstream demand has impacted back up the chain. Styrene production cutbacks have been in place since May because of inadequate economics, particularly in Japan. Further reductions have been implemented in the last two months in an effort to control inventories.

At the same time, the market continues to wait for the full impact of the new 700 ktpa joint venture Jubail Chevron Phillips styrene plant in Al Jubail, Saudi Arabia. Chevron Phillips announced in late August that the joint venture had commenced start up operations on 15 August and would begin exporting styrene in September.

News

Lummus Technology has been awarded contracts by Essar Gujarat Petrochemicals for technology licenses and basic engineering related to a major grassroots petrochemical complex at Vadinar, Gujarat, India. Technologies to be provided include ethylene, ethylbenzene, styrene monomer, butadiene extraction, MTBE/ETBE/butane-1 and cumene/phenol. The project will be built around a 1.3 million tons mixed feed ethylene unit. India's Essar Gujarat Petrochemicals is planning to start up an ethylbenzene-styrene complex in Vadinar as part of its petrochemical complex slated for start up in 2011-2012. Capacity would be 521 ktpa for EB and 500 ktpa styrene monomer.

STUDIES

Studies that are of interest to the subscribers of the Unsaturated Polyester Resins Chemical Business Focus:

Ethylene Oxide – Monoethylene Glycol S/Db-CHEM

Tecnon OrbiChem's S/Db-CHEM is a truly comprehensive service, containing all the information you need on - Supply/Demand data, Trade flows, Consumption trends, Capacity listings and Historical prices.

Production, Consumption and Trade data are based on an analysis of statistical information for the years 1995 to 2006, with forecasts to 2020. Historical trade flows are presented as country-to-country trade grids.

Please click on the following link to download a leaflet and subscription form:

[Ethylene Oxide - Monoethylene Glycol S/Db-CHEM](#)

Maleic Anhydride S/Db-CHEM and World Analysis 2008

Tecnon OrbiChem has completed the update of its Maleic Anhydride S/Db-Chem and World Analysis. The 2008 update shows a major swing of global capacity and consumption patterns. China is now the largest producer and consumer of Maleic Anhydride in the world. It now represents over 40 % of global Maleic Anhydride capacity and just under 30% of global consumption. This compares with 29% of capacity and 22% of consumption in 2005.

Tecnon OrbiChem's Maleic Anhydride S/Db-Chem and World Analysis 2008 is an invaluable business tool for producers, buyers and traders. It covers feedstock developments, technology, trade and supply/demand on a country-by-country, regional and global basis. Detailed profiles of the key producers are also included, with capacity and ownership information for each plant.

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Orthoxylene and Phthalic Anhydride S/Db-CHEM

Tecnon OrbiChem's Orthoxylene • Phthalic Anhydride S/Db-CHE M is a truly comprehensive service, containing all the information you need on orthoxylene, phthalic anhydride and phthalates - Supply/Demand data, Trade flows, Consumption trends, Capacity listings and Historical prices.

Production, Consumption and Trade data are based on an analysis of statistical information for the years 1995 to 2006, with forecasts to 2020. Historical trade flows for orthoxylene, phthalic anhydride and phthalates are presented as country-to country trade grids. Capacity listings on a plant-by-plant basis give producer, owner and feedstock information.

Historical prices for 2-EH, DOP, DIN P, isophthalic acid, maleic anhydride, mixed xylene, orthoxylene, paraxylene, phthalic anhydride, propylene glycol, styrene and UPR allow for construction of tables, charts and margins.

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