Issues Monitor

Sharing Knowledge on the Chemicals Industry

April 2009, Volume Three

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Welcome to the April edition of *Issues Monitor*. Each edition pulls together and shares our firms' industry-wide knowledge to help you quickly and easily get briefed on the issues that impact your sector.

John Morris
Global Head of Chemicals

Keeping up to date with the very latest and most pressing issues facing your business can be a challenge and, while there is no shortage of information in the public domain, filtering and prioritizing the knowledge you need can be time consuming and unrewarding. I hope that you find Issues Monitor useful and welcome the opportunity to further discuss the issues presented and their impact on your business.

ISSUE 1: Chemical industry hit by the economic downturn

Chemical companies are resorting to production cuts and layoffs in the wake of a plunging demand. Falling profits and assets' value are causing difficulties in completing deals. The outlook for 2009 is tough with the American Chemistry Council (ACC) predicting a fall in the chemical industry growth rate to 1.5 percent in 2009 from 2.2 percent in 2008.

ISSUE 2: Supply chain management in the chemical industry

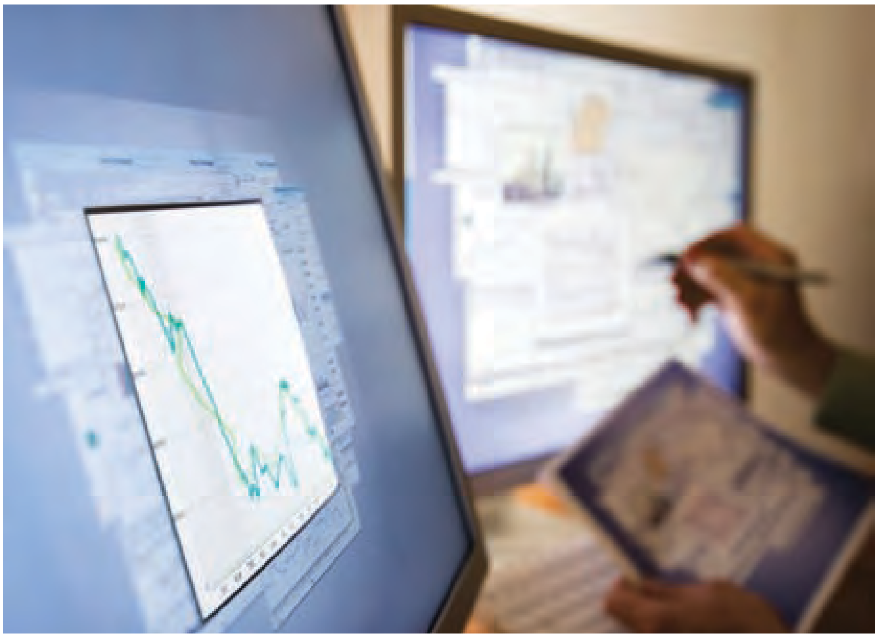
In the current economic climate, supply chain management (SCM) is becoming increasingly important in the chemical industry as companies look forward to generate value and revenue in addition to cutting costs. Tools such as software solutions and business process networks are helping companies to enhance their operational efficiency within their supply chains.

1

Chemical industry hit by the economic downturn

“Dow Jones US Chemicals Index fell by **44%** in 2008.

Chemical stocks tracked by the Dow Jones US Chemicals Index fell by 44 percent in 2008.[1] Concerns related to accelerating inflation and volatile energy prices of the mid-2008 have been replaced with recession and credit woes. “*Demand is softening around the world, and it appears that a global recession throughout 2009 is likely,*” The Dow Chemical Company said in a late October 10-Q SEC filing.[2] As a result, companies are scaling back operations, closing plants, and cutting back on new projects.[3]



“2009 will be the most challenging year in the chemical industry for 50 years. Chemical producers and distributors who have strong balance sheets, low debts and lean organizations will be the industry winners and future beneficiaries of the crisis.”[4]

– Marc Fermont, senior partner of Switzerland-based consultancy DistriConsult

Figure 1 highlights the performance of the US chemical industry since June 2008.

Figure 1: Dow Jones US Chemicals Index (2 June 2008 – 13 March 2009)

Source: Dow Jones US Chemicals Index, Reuters, 13 March 2009

The production in chemical process industries declined at an annualized rate of

13.5%

in Q4 2008.

The impact of the economic downturn

Sharp decline in demand; inventory destocking

The chemical industry is witnessing a significant decline in demand due to a reduction in the number of orders from industries, such as automotive, textile manufacturing and construction.[5] Production in chemical process industries (e.g., building materials, nonferrous metals, paper, petroleum refining, rubber and plastics) declined at an annualized rate of 13.5 percent in Q4 2008; it fell by 3.4 percent in January 2009 as compared to December 2008.[6] The US ethylene contract prices fell by a record 25 cents per lb in October and November 2008.[7] The falling prices reflect a deteriorating consumer confidence and a weakening economic environment.

Inventory destocking by customers is also weighing heavily on chemical manufacturers. David Begleiter, an analyst at Deutsche Bank, said, "*The fourth quarter is as bad as you could imagine, with massive inventory destocking occurring on top of weak demand and typical year-end uncertainties. We're seeing volume declines of 30-40 percent this quarter – customers are just destocking their inventories and not ordering.*"[8]

Decline in profits

The fall in demand for chemicals is leading to a decline in the reported company earnings. Table 1 highlights the financial performance of some of the leading players in the chemical industry in Q3 2008 and Q4 2008.

Table 1: Earnings of chemical companies – Q3 2008, Q4 2008

Company	Net earnings Q3 2008 (in million US$)	% Change with respect to Q3 2007	Net earnings Q4 2008 (in million US$)	% Change with respect to Q4 2007
AkzoNobel[(a)]	199	–23	–2,007	NM
BASF Group	961	–37	–413	NM
Bayer Group	351	–76	140	58
Ciba[(b)]	43	–9	–35	NM
ConocoPhillips	46	–58	–6	NM
The Dow Chemical Company	428	6	–1,552	NM
DuPont	367	–30	–629	NM
Exxon Mobil Chemical	1,087	–10	155	–86
Shell Chemical	116	–68	–19	NM
Solvay	95	–68	30	–87

Notes: Data updated until 3 March 2009; NA= Not Available; NM= Not Meaningful
Exchange rates in Q3 for conversion to US$: €1= 1.2675, CHF1= 0.9343; Exchange rates in Q4 for conversion to US$: CHF1= 0.86495, EUR1=1.3188
a. After Incidentals, b. Including restructuring and one-time tax items

Sources: 1. Slowdown Starts to Take Its Toll On European Chemical Earnings, Chemweek, 10 November 2008; 2. Chemical Profits at U.S. Oil Companies Slide, Chemweek, 10 November 2008; 3. News Release: nine month results to September 30, 2008, CIBA, 5 November 2008; 4. News Release: Full year results 2008, CIBA, 10 February 2009; 5. Consolidated statement of operations, Conocophillips,Q4 2008; 6. Third Quarter 2008 Highlights, Dow, Q3 2008; 7. Fourth Quarter 2008 Highlights, Dow, Q4 2008; 8. Our Performance, Shell Chemicals, Q4 2008; 9. Disclosures about Segments and Related Information, Exxon Mobil 10-Q, 4 November 2008; 10. Nine months 2008 results, Solvay, 30 October 2008; 11. Form 10-Q, DuPont, 28 October 2008; 12. Form 10-K, DuPont, 12 February 2009; 13. Report for 2008 and the Fourth Quarter, AkzoNobel, 2009; 14. Estimated 2008 Results, Exxon Mobil; 15. Press Release, Solvay, 19 February 2009; 16. BASF Group Annual Press Conference Report, BASF, 2008; 17. Annual Report, Bayer Group, 2008

"Without question, the fourth quarter was very challenging. Like many other companies, PPG experienced dramatic volume declines in several of the industrial end-use markets that we serve due to the rapid deterioration in the global economy."[9]

– Charles E. Bunch, Chairman and CEO, PPG Industries

Difficulties in closing deals

The chemical industry had expected to cut costs and improve efficiency through various deals in 2008. However, credit freeze, uncertainties of financial markets and recession in the US have had a significant impact on the chemical industry and made it difficult to complete deals.[10] The lack of credit and falling asset values have forced companies to revisit their prospective deals. The following are some of the failed or rescheduled deals during 2008 – 09:

- **Joint venture agreement between Petrochemical Industries Company (PIC) and The Dow Chemical Company fails:** On 28 December 2008, Kuwait's Supreme Petroleum Council (SPC) reversed its approval of the agreement between The Dow Chemical Company and PIC to enter into K-Dow Petrochemicals, a planned 50:50 JV company.[11] PIC backed out from the deal due to a fall in the value of Dow Chemical's assets, and resistance from Kuwait's parliament.[12] In response, The Dow Chemical Company would reportedly sue PIC for more than US$2.5 billion in damages.[13]

- **The deal between Dow Chemical Company and Rohm and Haas gets delayed by more than two months:** The failed joint venture between PIC and Dow impacted Dow's planned acquisition of Rohm and Haas valued at US$15 billion. On 26 January 2008, Dow Chemical announced its inability to complete the acquisition by the 27 January 2009 deadline, citing "unacceptable uncertainties on the funding and economics of the combined enterprise." On 27 January 2009, Rohm and Haas filed a lawsuit in a Delaware court to enforce the transaction at the original price of US$78 per share.[14] However, on 9 March 2009, both the companies reached an agreement to resolve the litigation and finally closed the deal on 1 April 2009.[15, 16]

- **Qatar Intermediate Holdings (QIH) and Honam Petrochemical delay olefins joint venture:** In December 2008, the two companies announced a one-year delay of their 70:30 joint venture project to build an olefins plant in Qatar. The construction of the plant is now expected to start in 2012 instead of 2011.[17]

- **Hexion Specialty Chemicals terminated its merger agreement with Huntsman Corporation:** On 13 December 2008, Hexion terminated its merger agreement worth US$6.5 billion with Salt Lake City-based Huntsman. Hexion is liable to pay a termination fee of US$325 million to Huntsman.[18]

How are companies achieving operational efficiencies in these tough times?

Cost-cutting initiatives undertaken by chemical manufacturers

The current economic downturn is putting pressure on chemical companies to cut costs and align their production with demand. "*Companies are focusing on cash flow and taking out excess capacity quickly. This reflects the severity of the downturn,*" says David Begleiter.[19]

Table 2 highlights the initiatives undertaken by various chemical companies.

Table 2: Strategic initiatives undertaken by various chemical companies

Company name	HQ location	Date of announcement	Steps announced
Arkema[20]	France	21 November 2008	• Closure of 12 petrochemical sites worldwide from December
		27 November 2008	• Closure of two loss-making vinyl products plant in France, affecting 169 jobs
BASF[21]	Germany	19 November 2008	• Temporary closure of 80 plants worldwide • Reduce production at approximately 100 plants • The cuts will impact about 20,000 employees worldwide
BorsodChem[22]	Hungary	4 February 2009	• Lay off 550 employees due to waning orders
Mitsubishi Chemical[23]	Japan	23 February 2009	• Plan to close three aromatics units in Kashima and Mizushima for 45 – 60 days from May 2009
AkzoNobel[24]	Netherlands	29 September 2008	• Cut 3,500 jobs by 2011 • Defer the share buyback program
		9 December 2008	• Close parts of its decorative paints production, affecting 350 jobs
Lyondell Basell	Netherlands	24 November 2008	• Reduce 15 percent of its global workforce or 2,500 employees[25]
		18 December 2008	• Temporarily close the Chocolate Bayou olefins plant in Texas[26]
Novokuibyshevsk Petrochemical Co.[27]	Russia	10 December 2008	• Halt output at its isoprene unit leading to 1,000 layoffs
SABIC[28]	Saudi Arabia	10 December 2008	• Lay off 1,050 employees from its global workforce through 2009
Ineos[29]	UK	December 2008	• Defer the construction of four biodiesel plants in Europe • Plan to cut capital expenditure by 47 percent to US$317 million (€250 million) in 2009 from €600 million (US$761 million) in 2008
The Dow Chemical Company[30]	US	11 December 2008	• Suspend styrene, polystyrene and ethylbenzene production at three plants in the Netherlands
		8 December 2008	• Close 20 high-cost facilities • Temporarily idle 180 plants • Cut 5,000 full-time jobs, representing 11 percent of the global workforce • Reduce the number of contractors worldwide by about 6,000
DuPont[31]	US	4 December 2008	• Lay off 2,500 jobs
Huntsman[32]	US	22 January 2009	• Close the Titanium dioxide plant in the UK • Cut 1,175 jobs or 9 percent of its overall workforce
Rohm and Haas[33]	US	20 January 2009	• New savings and restructuring measures announced, affecting 900 jobs

“Growth in the **US$3.18 trillion** global chemical industry to slow down to about 1.5% in 2009 from 2.2% in 2008.

An uncertain future?

Low levels of demand for chemicals are expected to continue through 2009.[34] Paul Satchell, a Chemicals Analyst for Dutch investment bank ING, predicts that 2009 would be a lean period for M&A deals given the prevailing uncertainty in demand in the global chemical market. He adds that companies have been using so many resources to deal with the downturn that they would find it difficult to manage the integration of new businesses.[35]

The American Chemistry Council (ACC) predicts that the chemical industry will remain under pressure in 2009 as output continues to fall in Europe and North America. Growth in the global chemical industry, currently worth US$3.18 trillion, is likely to slow down to about 1.5 percent in 2009 from 2.2 percent in 2008. Kevin Swift, ACC Chief Economist, expects the growth to recuperate to 3.3 percent in 2010.[36]

Swift expects the US$664 billion US chemical industry to decline by 3.6 percent in 2009, but witness growth by 1.2 percent in 2010. The ACC expects Western Europe’s chemical industry to perform slightly better than that of the US in 2009.[37]

Li Xihong, President of Sinopec’s Economics and Development Research Institute said, “*The global financial crisis and economic downturn are hindering economic growth in China and will slow ethylene demand growth to half of its current rates. The financial crisis has badly hurt the Chinese economy.*”[38] Li estimates the ethylene demand in 2009 to grow at 4 percent, considerably lower than the recent growth rates of more than 10 percent annually.[39]

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How KPMG firms can help

Restructuring

Signs of stress and distress appear not just in a company's financial results but also in their interaction with the outside world. Obvious indicators may be the absence of liquidity and the missing of payment commitments, similarly, breaches of banking covenants, if they exist, are easy to spot and difficult to ignore. In order to stabilize and turnaround a company a range of skills are typically needed. KPMG firms work alongside management as well as lenders and stakeholders to deliver strategies that can help bring real improvement.

Efficiency and cost optimization

Working alongside clients, our firms' professionals help to streamline processes, to enhance controls and to contain costs and business risks. We look at systems, supply chains, capital structures and contracts with third parties to see how they can best be optimized. We identify areas of weakness that might jeopardize achievement against objectives as well as advising on the development and execution of management systems to create sustainable business performance.

Sustain competitive advancement through Joint Ventures.

Joint Ventures can unlock access to people, resources and markets with outstanding results, and due to current market conditions, are increasing significantly. We understand the complexities and will work with you through the array of unfamiliar issues from entry, through the partnership and at exit. We know that partnerships are often entered into with high energy and optimism and our firms' experience with Joint Ventures seeks to achieve the benefits you have set your sights on.

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2 Supply chain management in the chemical industry

The chemical industry has a relatively long supply chain — from raw materials to finished products. In some cases, it even extends to recovery and disposal.[40] The supply chain management (SCM) costs represent on average 8 – 10 percent of the turnover of chemical companies.[41] An effective SCM is critical for the industry, especially at a time when earnings are declining on the back of a weakening global demand. Sharing supply chain best practices has come a long way over the years, but still there is room for further improvements, says Christopher Lange, a Senior Executive in Accenture's Chemicals practice.[42]

"The supply chain management costs represent on average 8 to 10 percent of the chemical companies' turnover.

"While companies have traditionally looked at the supply chain as a way to cut costs, they now look at it as a strategic and financially important part of the business and a way to generate value and revenue. In a competitive global landscape, sharing best practices will be critical to increasing performance."[43]

– Christopher Lange

Challenges

The primary SCM challenges faced by the chemical industry are as follows:

- Operating on lower margins[44]
  - The global economic downturn is weighing heavily on the demand for chemicals, leading to a decline in earnings. Therefore, it is important to develop a successful cross-functional sales and operations (S&OP) process to align the operations and demand planning with corporate strategic objectives.[45]
- Globalization is leading to complex supply chains[46]
  - Globalization has allowed companies to expand their reach from traditional customers, suppliers and partners to a large number of alternatives for sourcing, shipping and distribution. Functions — from manufacturing through end consumption — are now spread across the globe, giving rise to complex supply chains.

Recent initiatives

Overleaf are some of the initiatives adopted by chemical companies to improve their supply chain and enhance operational efficiency.

BASF expects an earnings gain of at least

€175 million

(US$223.74 million) through a process optimization project named 'Accelerator'.

BASF

Launched an excellence program — NEXT — in October 2008 to improve productivity and effectiveness in all functions and working areas. Through this program, BASF expects to earn €1 billion (US$1.28 billion) per year by 2012. Some individual projects under this program include the following:[47]

- Accelerator, a process optimization project, was launched in April 2008 to simplify, optimize and standardize the global sales, planning and procurement processes. The company expects an increase in earnings by at least €175 million (US$223.74 million) with this program.[48]
- The company is also planning to optimize its nine largest sites in Asia-Pacific by end-2010, which would result in savings of €80 million (US$102.28 million).[49]

The Dow Chemical Company

Announced that it was using a software solution — SmartChain Asset Management — developed by Savi, a Lockheed Martin Company, for its Toxic Inhalation Hazard (TIH) rail tank car fleet to automatically monitor the location and security status of hazardous materials transported by Dow. This solution would enable Dow to receive on-demand or automated alerts of possible security breaches, unsafe temperatures and accidental impact on tank cars.[50]

The company also plans to streamline its procurement transactions with suppliers across the world and reduce costs with improved accuracy by automating the procurement of maintenance, repair and operations (MRO) supplies, using an e-procurement solution from Elemica.[51]

How can companies achieve cost savings through SCM?

"During 2007 and 2008, Dow significantly increased the amount of automated transactions through Elemica increasing business process efficiency, improving data quality and reducing human error. We are now leveraging the Elemica network to manage both direct and indirect material (i.e., MRO) purchases. The implementation team was very efficient in managing the supplier rollout of the program."[52]

– Mark Farley, Procurement Technology Leader, The Dow Chemical Company

Eastman Chemical Company

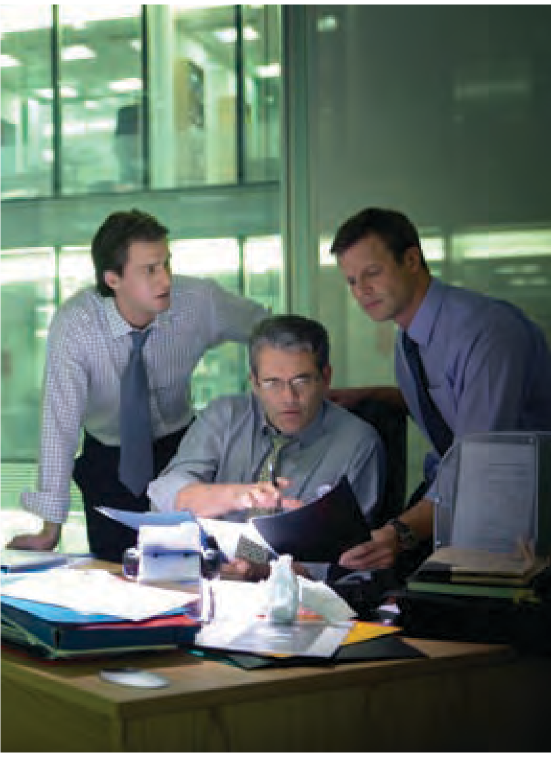
Selected OMP Plus and OMP Designer software from OM Partners to improve its supply chain operations globally. OMP Plus helps plan and schedule continuous, batch, and campaign manufacturing as well as distribution. OMP Designer is used to optimize the company's global supply chain network.[53]

Sumitomo Chemical Co. Ltd

The company has connected with Elemica Business Process Network (BPN) to streamline order management with trading partners, such as BASF and Dow.[54]

"As our supply chain grows in complexity, streamlining the electronic ordering process became a priority. We chose the Elemica network to provide us with visibility into our order management processes to enable better decision support, faster execution, and improved accuracy while establishing consistent business processes."[55]

– Osahide Murakami, Manager, Corporate Planning & Coordination Office, Sumitomo Chemical Co.



Rohm and Haas

Implemented the Terminal and Warehouse (TW) Solution from Elemica to gain visibility into inventory, orders and shipments.[56]

"The Elemica Terminal and Warehouse Solution drives efficiency by eliminating multiple entries of the same data, automating processes and removing trans-actional and communication barriers with our external partners. Terminals and Warehouses can reduce our time-to-invoice because we have faster data entry with fewer errors and better visibility into inventory and customer shipments."[57]

– Ed Beaver, Business Process Manager, Rohm and Haas

Conclusion

With falling profits and weakening demand, chemical companies will be expected to focus more on SCM to enhance operational efficiencies and reduce costs. Hendrik Abma, Director General, European Association of Chemical Distributors said, *"Chemical distribution will play a major role within the chemical supply chain in 2009. Knowledge of market developments and ability to add value in the chain will become increasingly important and lead, in the long term, to an even stronger position of the distribution sector within the chemical industry."*[58]

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IT control processes

While technology presents major opportunities to improve efficiency and global reach, it also creates significant risks. Our firms' professionals advise our clients in using technology to help drive growth, improve business performance and to safeguard operational integrity, security and continuity.

Efficiency and cost optimization

Working alongside clients, our firms' professionals help to streamline processes, to enhance controls and to contain costs and business risks. We look at systems, supply chains, capital structures and contracts with third parties to see how they can best be optimized. We identify areas of weakness that might jeopardize achievement against objectives and devise and execute management systems to create sustainable business performance.

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Companies mentioned in this issue

Sources

1 *Chemicals slammed in 2008 by energy, credit woes,* Chicago Tribune, 31 December 2008

2 *Sharp Demand and Price Declines Cloud Outlook,* Chemweek, 10 November 2008

3 *OUTLOOK '09: Chemicals makers face no ordinary downturn,* ICIS, 6 January 2009

4 *Bold predictions 2009,* ICIS, 1 January 2009

5 *BASF cuts production after fall in demand,* TimesOnline, 20 November 2008

6 *Downward Spiral,* Chemweek, 9 February 2009

7 *Ethylene Prices Plummet,* Chemweek, 8 December 2008

8 *Wall Street and financial analysts give their 2009 profit outlook for chemicals,* ICIS, 31 December 2008

9 *Earnings Take a Hit at Most Early Reporting Chemical Firms,* Chemweek, 26 January 2009

10 *Chemicals slammed in 2008 by energy, credit woes,* Chicago Tribune, 31 December 2008

11 *Dow Chemical Receives Notification of Kuwait Decision to Cancel K-Dow Partnership,* Dow, 28 December 2008

12 *Setback for Dow Chemical as Kuwait scraps $17.4bn joint deal,* FT, 29 December 2008

13 *Dow turns up heat in Rohm takeover dispute,* FT, 3 February 2009

14 *Rohm and Haas sues over Dow deal,* FT, 27 January 2009

15 *Dow and Rohm and Haas Announce Settlement to Close Acquisition,* Rohm and Haas, 9 March 2009

16 *Dow Completes Acquisition of Rohm and Haas, Creating a Leading Global Specialty Chemicals and Advanced Materials Company,* Dow, 1 April 2009

17 *Qatar and Honam Delay Olefins Joint Venture,* Chemweek, 15 December 2008

18 *Hexion abandons $6.5bn bid for Huntsman,* FT, 15 December 2008

19 *Wall Street and financial analysts give their 2009 profit outlook for chemicals,* ICIS, 31 December 2008

20 *Chemicals industry feels the pain in global downturn,* ICIS, 5 February 2009

21 *BASF reduces production worldwide,* BASF, 19 November 2008

22 *Chemicals industry feels the pain in global downturn,* ICIS, 5 February 2009

23 *This week's world news,* ICIS, 5 January 2009

24 *Chemicals industry feels the pain in global downturn,* ICIS, 5 February 2009

25 *LyondellBasell to Cut Workforce by 15%,* Chemweek, 24 November 2008

26 *Chemicals industry feels the pain in global downturn,* ICIS, 5 February 2009

27 *Chemicals industry feels the pain in global downturn,* ICIS, 5 February 2009

Sources

28 *Chemicals industry feels the pain in global downturn,* ICIS, 5 February 2009

29 *Ineos Shelves Four Biodiesel Units in Europe,* Chemweek, 8 December 2008

30 *Chemicals industry feels the pain in global downturn,*ICIS, 5 February 2009

31 *Chemicals industry feels the pain in global downturn,* ICIS, 5 February 2009

32 *Chemicals industry feels the pain in global downturn,* ICIS, 5 February 2009

33 *Chemicals industry feels the pain in global downturn,* ICIS, 5 February 2009

34 *The Dow Chemical Company 4Q & Full-Year 2008 Earnings Conference Call,* Dow, 3 February 2009

35 *OUTLOOK '09: Shift ahead in global M&A amid credit crisis,* 31 December 2008

36 *Global Forecast,* Chemweek, 12 January 2009

37 *Global Forecast,* Chemweek, 12 January 2009

38 *Chinese Ethylene Growth Will Slow in 2009,* Chemweek, 15 December 2008

39 *Chinese Ethylene Growth Will Slow in 2009,* Chemweek, 15 December 2008

40 *A chemical industry in transition needs a practical strategy to combat slowdown,* ICIS, 7 April 2008

41 *Perspectives for the European chemical industry,* CEFIC, March 2004

42 *The Chemical Supply Chain: By The Numbers,* IndustryWeek, 1 April 2008

43 *The Chemical Supply Chain: By The Numbers,* IndustryWeek, 1 April 2008

44 *LogiChem, The premier Chemicals Supply Chain Conference 2008,* Page-3, September 22-24, 2008

45 *LogiChem, The premier Chemicals Supply Chain Conference 2008,* Page-3, September 22-24, 2008

46 *LogiChem, The premier Chemicals Supply Chain Conference 2008,* Page-3, September 22-24, 2008

47 *BASF Q3 Report*

48 *BASF Q3 Report*

49 *BASF Q3 Report*

50 *Dow Chemical Company Deploys Software to Monitor, Secure Chemical Tank Rail Cars,* Supply & Demand Chain, 23 September 2008

51 *Dow Chemical Looks to Automate Global Procurement,* Supply & Demand Chain, 29 December 2008

52 *Dow Chemical Looks to Automate Global Procurement,* Supply & Demand Chain, 29 December 2008

53 *Eastman Chemical Company Improves Worldwide Supply Chain,* Supply & Demand Chain, 14 April 2008

54 *Sumitomo chemical uses Elemica network to facilitate order management,* Supply & Demand Chain, 26 September 2008

Sources

55 *Sumitomo chemical uses Elemica network to facilitate order management,* Supply & Demand Chain, 26 September 2008

56 *Rohm and Haas Uses Terminal and Warehouse Solution to Accelerate Time to Invoice,* Supply & Demand Chain, 5 December 2008

57 *Rohm and Haas Uses Terminal and Warehouse Solution to Accelerate Time to Invoice,* Supply & Demand Chain, 5 December 2008

58 *Bold predictions 2009,* ICIS, 1 January 2009

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