

Timeline of Raw Material Shortages and Price Increases

May 24 - Dow Chemical announces price increase on VAM

MIDLAND, MI – The Dow Chemical Company announced today that it will increase off-list selling prices for **vinyl acetate monomer** in Latin America by US\$150 per metric ton; in Asia Pacific by US\$150 per metric ton; in Europe by 110 Euros per metric ton; and in the Middle East/Africa by US\$150 per metric ton. **In the United States and Canada, list and off-list prices will increase by \$0.06 per pound.** This price increase is effective immediately or as otherwise allowed by individual contract terms.

June 6 – Celanese announces price increase on polymer emulsions

DALLAS, TX – Celanese, a global leader in polymer emulsions, announced today that it will increase the price of all **PVAc homopolymer, VAE co-polymer, acrylic and vinyl-acrylic emulsions sold in North America by up to 10 percent.** This increase applies to all applications. The increase will be effective for shipments on or after July 1, 2007, or as contracts allow. Pricing will reflect unique technology and delivery requirements for each product.

June 11 - Air products announces price increases on VAM and polymers

LEHIGH VALLEY, Pa. – Air Products Polymers, L.P. today announced that, effective July 1, 2007, it will implement a **\$0.025 per wet pound price increase for all vinyl acetate homopolymer and copolymer, vinyl acetate ethylene copolymer, vinyl acetate vinyl chloride copolymer and vinyl acrylic based emulsions.** These products are sold by the company under the Airflex®, Flexbond®, and Vinac® trademarks. This price adjustment, applicable to all North American sales, reflects rising prices and tight supply for a wide range of raw materials.

June 12 - Celanese extends force majeure; precipitates worldwide shortage

Celanese Temporarily Ceases Acetic Acid Production at Clear Lake, Texas Facility

Dallas, TX – Celanese Corporation (NYSE:CE), a global hybrid chemical company, today announced that initial attempts to repair the acetic acid unit at its Clear Lake, Texas facility were unsuccessful upon restart, and a shutdown will be required for additional repair. **The company has informed its acetic acid and derivatives customers that the force majeure previously announced on May 14 will be extended.** Celanese will also expand the force majeure to additional acetyl derivatives products. The company also announced that its 600,000 metric ton acetic acid facility in Nanjing, China has passed commercial qualification and is currently running at full production rates. *Based upon current expectations, sustainable operations at the Clear Lake facility should resume by mid-July.*

June 13 – Chemical Week reports on prices and problems with supply

Dow announced **price increases on ethylene feedstock products due to rising acetic acid prices.** Celanese also raised prices on July 1. Chemical Week also reported that the VAM market shifted from balanced to tight due to production problems in Europe (at Ineos' VAM process in the U.K.) and the U.S. (Celanese).

June 20 - Rohm and Haas raises prices on VAM-based emulsions

PHILADELPHIA, PA, -- Rohm and Haas's (NYSE: ROH), Packaging and Building Materials business today announced a price increase for all of its acrylic and styrene-acrylic emulsions, solution and solid-grade acrylic resins, **vinyl-acetate based emulsions,** and additives sold to the North American graphic arts, textile non-woven, pressure sensitive, construction, adhesives, and packaging industries. The increases of up to **10 percent will be implemented on July 1, 2007,** or as contracts allow. These increases are necessitated by tightening supply of feedstock's, rapidly rising feedstock costs, and continued increases in energy costs.

June 21 - US acetate solvent buyers brace for hikes

ICIS news reported that the Celanese force majeure declaration has put acetate **solvent producers into a strong position to raise prices in the third quarter**. Solvent distributors said Celanese has indicated new allocation levels of 10% on acetic acid and 35% on ethyl acetate. Several US distributors said they were implementing sales controls at 75% on ethyl acetate, and unspecified controls were being applied to acetic acid.

June 21 - Wacker VAM output halted due to feedstock issues

LONDON - ICIS news reported **Wacker Chemie** has stopped production at its 140,000 tonne/year vinyl acetate monomer (VAM) plant in Burghausen, Germany, temporarily due to feedstock ethylene production issues. **This following the unplanned outage at supplier OMV's cracker last week.**

ICIS reported **that VAM availability in Europe has become increasingly difficult** since Celanese declared *force majeure* on acetyls from its 1.2m tonne/year plant at Clear Lake, Texas, and a subsequent 50% allocation of contracts.

June 22 – VAM Producers in a sold-out position; DuPont possible shutting down Texas VAM plant

ICIS reported that DuPont has submitted environmental reports on 17 June indicating a need to **shut down its Texas VAM plant for maintenance on critical components**. It is not immediately clear how long the plant will be out of service. Supplies to customers did not appear to be significantly disrupted according to ICIS' sources.

June 26 - Clear Lake force majeure has global impact

26 June 2007 15:48 LONDON -- ICIS news reported that lost production from Celanese's acetic acid process has a worldwide impact. The hobbled Clear Lake, Texas facility has become a major talking point not just in the US, Asian and European acetic markets but also in the downstream sectors. **Lost production is estimated to be 100,000 tons**. One European acetic acid producer spoke of an "imminent crisis" developing in the market.

ICIS said that in Asia, VAM spot prices also hit record highs of \$1,150-1,220/tonne (€851-902/tonne) CFR (carriage and freight) NE Asia (northeast Asia) on Friday 22 June, up \$40-50/tonne from mid-June. Reduced operating rates at Dow Chemical's plant in Taiwan since the spring due to high feedstock ethylene values were said to have exacerbated the Asian shortage.

June 27 - H.B. Fuller copes with VAM supply disruption

27 June 2007 17:56 TORONTO ICIS news reported that Fuller does not expect deliveries to its customers to be affected by Celanese's US vinyl acetate monomer (VAM) production outage. But the company said the Celanese outage had evolved into **a major supply issue with global spill-over impacts on the industry**.

June 28 - Celanese Nanjing acetic acid shut on low CO supply

SINGAPORE -- ICIS news reported that Celanese has shut its 600,000 tonne/year acetic acid plant in Nanjing, China due to carbon monoxide (CO) supply issues, sources close to the company said on Thursday. **The plant was shut on Wednesday after encountering problems with supplies of feedstock CO**, they said, adding that operations were expected to resume by this weekend. The new facility had passed commercial qualifications and was running at full production since 12 June, the producer had said earlier.