VAM to remain top acetic acid outlet

Vinyl acetate monomer will remain the largest outlet for acetic acid, due to both the large volumes of VAM produced and its high acetic acid content (70 percent). Demand for vinyl acetate in the US will grow at a healthy pace, especially in the adhesives, and paints and coatings markets, where it benefits from a positive environmental profile.

However, production growth will be restrained by weakening export opportunities as capacity increases overseas, which will limit demand growth for acetic acid in this market.

TPA to be fastest growing product

Terephthalic acid (TPA) is forecast to be the fastest growing downstream product of acetic acid, both in terms of its own demand and its consumption of acetic acid. The latter is particularly impressive because only small amounts of acetic acid are present in TPA, and the large amounts of acetic acid used in TPA manufacture result from the large volumes of TPA produced.

TPA is used almost exclusively in the manufacture of PET resins, and demand will benefit from strong growth in the production of PET used in soft drink and other beverage bottles, food containers and other packaging applications.

Esters to also provide important outlet

Acetic acid esters will also experience healthy advances and thus provide an important outlet for acetic acid. Among the various esters, ethyl and butyl acetates are the most widely used and will offer the best growth, but numerous smaller volume esters will find opportunities in niche applications. Acetate esters are used mainly in paints and coatings, where they will also see the fastest growth. In this market, esters benefit from their use as replacements for solvents with high contents of volatile organic compounds, and from their compatibility with water-based latex paints, which dominate the architectural segment and are making inroads into the industrial sector.

Cellulose acetate will experience the slowest growth among downstream products and thus limit opportunities for acetic acid consumption. Demand for cellulose acetate will be restrained by slow growth in its primary market, cigarette filters, and flat to declining fiber and plastics applications. Aided by significant export markets, production will fare somewhat better than demand, which will provide some offsetting support for acetic acid consumption.

Study coverage

Details on these and other findings are available in the 186-page Freedonia study, Acetic Acid & Derivatives, priced at $3400. This study provides US historical demand data and forecasts to 2004 and 2009 by type and market. The study also examines the market environment, presents market share data and profiles over 20 selected industry participants.

Table of contents & sample pages inside; other studies, order information on back
**TABLE VIII-5**

**ACETIC ACID ESTERS MARKETS**

<table>
<thead>
<tr>
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<td>Nondurable Goods Shpts (bil 1996$)</td>
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<td>1.69</td>
<td>1.73</td>
<td>1.83</td>
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<td>lb esters/000$ nondurable</td>
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<td>0.42</td>
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<td>390</td>
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<td>570</td>
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<tr>
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<td>$/lb</td>
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<td>0.39</td>
<td>0.43</td>
<td>0.47</td>
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<tr>
<td>Acetic Acid Esters Demand (mil $)</td>
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<td>243</td>
<td>313</td>
<td>412</td>
<td>527</td>
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</tbody>
</table>

**VINYL ACETATE MONOMER**

**Supply & Demand**

Demand for vinyl acetate monomer is forecast to advance through 2004 by an annual pace of 3.4 percent per annum to 2.9 billion pounds. Vinyl acetate monomer is one of the faster growing downstream products of acetic acid, based on advances in adhesives and coatings markets. In these markets, VAM benefits from advances in the production of adhesives for use in formulae that exclude or reduce the use of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). The adhesives and coatings producers are reformulating their products to meet environmental regulations, creating opportunities for VAM. Growth in VAM will continue the pace established in the 1994-1999 period.

Production of vinyl acetate monomer will increase through 2004 at an annual pace of 1.4 percent, to 3.4 billion pounds, significantly lagging growth in demand. Production will be restrained by shrinking export markets. Although limited, it is a slight acceleration from the recent historical pace, representing Celanese’s recovery from the April 1996 explosion at its Clear Lake facility.

During the mid to late 1990s, US supplies of VAM were tight, which was exacerbated by the April 1996 explosion at Celanese’s Clear Lake, Texas facility. Although the VAM unit did not suffer damage, feedstock acetic acid supplies were disrupted, which caused VAM production to suffer. As a result of tightened US supplies, several producers cut back on exports to ensure supplies for their US contract customers. Although Celanese’s plant is back on line, US producers are expected to continue to focus on the US market, due to both increased demand and shrinking opportunities overseas.
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