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**O**WING TO FLAT SALES GROWTH AND a paucity of merger and acquisition activity, C&EN's 2003 survey of the top U.S. chemical companies was little different from the one published in 2002. This year, the 2004 survey reflects increased sales, largely due to a recovery in demand and high petroleum and natural gas prices. However, because company revenues increased more or less in tandem, the ranking, again, changed little. In fact, 11 of the 50 companies surveyed hold the same position as they did in C&EN's 2003 survey.

For the third straight year, Dow Chemical sits atop the C&EN ranking, with \$32.6 billion in sales. Dow is followed closely by the company that held the top spot

on the list for years—DuPont, with \$30.2 billion in sales. It is likely DuPont will remain number two when the survey is published next year, even with the loss of about \$6 billion in revenues due to the just completed sale of its Invista fibers unit to Koch Industries.

Then again, DuPont could fall behind ExxonMobil, which comes in third this year with \$20.2 billion in sales. Because of high prices for hydrocarbons, ExxonMobil's sales are up by 23%. Another major petrochemical maker, Chevron Phillips, shows the same effect. Its sales are up 28% to \$7.0 billion, catapulting it to fifth place from eighth the previous year.

GE is number four, with \$8.4 billion in sales. For the first time, Huntsman Corp. is reporting all of its sales in a 10-K annual report with the Securities & Exchange Commission (SEC) because it has publicly traded bonds. It comes in at sixth, with \$7.0 billion in sales.

The Equistar Chemicals partnership is number eight, reporting \$6.5 billion in sales. But this year will be Equistar's last. Its majority owner, Lyondell Chemical, is acquiring Millennium Chemicals, number 28, which owns the rest the joint venture. Equistar, Millennium, and Lyondell will be consolidated into one company with about \$12 billion in annual sales. Barring an unforeseen event, Lyondell should jump ahead of GE to claim the number four spot in next year's ranking.

**ROUNDING OUT** the top 10, PPG Industries is seventh, with sales of \$6.6 billion. Air Products & Chemicals jumps from 11th to ninth, with \$6.0 billion in sales. And Eastman Chemical drops one spot to number 10.

There are a few newcomers to the list. Nalco rejoins the survey after a brief stint as the Ondeo Nalco subsidiary of French conglomerate Suez. Nalco's French ownership placed it seventh last year in C&EN's survey of the U.S. sales of foreign-owned chemical companies. The water treatment chemical maker returns to the U.S. ranking at 18.

Like Huntsman, polyvinyl chloride maker Westlake Chemical has traditionally been a private company, but it is now dipping its toes into the debt mar-

## METHODOLOGY

### Compiling The Top 50

**C**&EN ranks chemical producers by sales, defined as sales of chemical and allied products, except pharmaceuticals. Ranking the companies by chemical sales is the only way that privately held companies and some diversified producers can be included. If, for example, C&EN used market capitalization, the ranking couldn't include Huntsman Corp., General Electric, or ExxonMobil.

Because chemical sales are derived from company annual reports, non-chemical products often creep in. For instance, DuPont includes sales of seeds along with agrochemicals in its agricultural and nutrition segment.

C&EN does not restate prior-year results, except when a company changes accounting procedures. Nor does C&EN

routinely restate prior-year rankings.

In the list of foreign-owned companies, C&EN uses sales administered by the U.S. headquarters of the companies. These figures are as close to the U.S. sales as possible; however, companies don't post regional sales consistently. For Shell Oil, U.S. sales are listed, but for BASF, North American sales are given. A comparison of total global operations of chemical producers is scheduled to appear in the July 19 issue of C&EN.

To compile the information for the lists, C&EN uses, for the most part, official company documents such as annual reports and 10-K filings with the Securities & Exchange Commission. In the case of privately held and some foreign-owned companies, company interviews are used.

ket and is required to file with SEC. Its \$1.4 billion in sales introduces it to the ranking at number 35.

Ethyl Corp., enjoying a 15% sales increase, rejoins the list at number 49 after a two-year absence.

A few companies are not in the ranking, some perhaps only temporarily. Goodyear Tire & Rubber Co., 45th last year, is late in filing its 10-K with SEC because it has noticed some \$65 million in inaccuracies in its profit reporting over the past seven years and will have to restate these results.

Likewise, accounting irregularities are delaying the 10-K filing of OM Group, which ranked 19th last year. However, following the 2003 sale of its precious-metals catalyst business to Belgium's Umicore, it is doubtful OMG would have made this year's list anyway.

Reorganization at 3M means chemical sales are buried in the results of businesses unrelated to chemicals. The company, 43rd last year, probably has enough chemical production to make the list, but C&EN had to exclude it for lack of information.

Like 3M, several other companies that

probably have enough sales weren't on the Top 50 ranking because they don't report chemical sales. Koch Industries, which has chemical holdings including the newly acquired DuPont Invista unit, polyethylene terephthalate maker KoSa, and large aromatics and fertilizer businesses, could probably make the survey every year if it disclosed its chemical sales.

Kraton Polymers recently told C&EN that its sales are more than \$650 million annually. Kraton perhaps has enough sales to edge out Sigma-Aldrich, which is at the bottom of the list at number 50, with \$714 million in chemical sales. However, Kraton doesn't disclose its actual revenues. Consumer products maker Procter & Gamble also sells enough chemicals to make the list but doesn't break out sales for its chemicals unit.

Rockwood Specialties—formed in 2000 from the Kohlberg, Kravis, Roberts & Co. buyout of part of Laporte—had nearly \$800 million in sales for 2003. However, with businesses such as Southern Clay Products composing part of that total, it is doubtful that it has enough purely chemical sales to be

**Overall, 2003, the year on which the survey is based, was a better year financially for the U.S. chemical industry than 2002.**

## A LITTLE BETTER

Sales and profits improved for many of the Top 50 U.S. chemical producers in 2003

RANK		COMPANY	CHEMICAL SALES (\$ MILLIONS) 2003	CHANGE FROM 2002	CHEMICAL SALES AS % OF TOTAL SALES	HEADQUARTERS	CHEMICAL OPERATING PROFITS <sup>a</sup> (\$ MILLIONS)	CHANGE FROM 2002	CHEMICAL OPERATING PROFITS AS % OF TOTAL OPERATING PROFIT		IDENTIFIABLE CHEMICAL ASSETS (\$ MILLIONS)	CHEMICAL ASSETS AS % OF TOTAL ASSETS	OPERATING RETURN ON CHEMICAL ASSETS <sup>c</sup>
2003	2002								OPERATING PROFIT	PROFIT MARGIN <sup>b</sup>			
1	1	Dow Chemical	\$32,632.0	18.2%	100.0%	Midland, Mich.	\$2,082.0	78.7%	100.0%	6.4%	\$30,566.0	73.0%	6.8%
2	2	DuPont <sup>d</sup>	30,249.0	13.2	99.9	Wilmington, Del.	na	na	na	na	23,813.0	98.9	na
3	3	ExxonMobil <sup>e</sup>	20,190.0	23.0	8.5	Irving, Texas	1,432.0	72.5	6.7	7.1	19,508.0	11.2	7.3
4	4	General Electric	8,371.0	9.4	6.2	Fairfield, Conn.	803.0	-28.6	4.0	9.6	15,044.0	2.3	5.3
5	8	Chevron Phillips	7,018.0	28.2	100.0	The Woodlands, Texas	76.0	85.4	100.0	1.1	6,242.0	100.0	1.2
6	5	Huntsman Corp.	6,990.2	-2.9	100.0	Salt Lake City	68.7	na	100.0	1.0	8,737.4	100.0	0.8
7	6	PPG Industries	6,606.0	10.2	75.4	Pittsburgh	939.0	28.8	96.0	14.2	5,450.0	64.7	17.2
8	7	Equistar Chemicals	6,545.0	18.2	100.0	Houston	-62.0	nm	100.0	def	5,028.0	100.0	def
9	11	Air Products <sup>f</sup>	6,029.5	17.6	95.7	Allentown, Pa.	651.9	-20.2	107.8	10.8	9,127.9	96.8	7.1
10	9	Eastman Chemical	5,800.0	9.0	100.0	Kingsport, Tenn.	223.0	4.7	100.0	3.8	6,230.0	100.0	3.6
11	12	Rohm and Haas	5,620.0	11.9	87.5	Philadelphia	na	na	na	na	7,792.0	82.5	na
12	10	Praxair	5,613.0	9.5	100.0	Danbury, Conn.	1,444.0	6.3	100.0	25.7	8,305.0	100.0	17.4
13	13	Lyondell Chemical	3,801.0	16.5	100.0	Houston	-1.0	nm	100.0	def	6,436.0	96.5	def
14	16	Occidental Petroleum	3,178.0	17.5	34.1	Los Angeles	213.0	nm	7.5	6.7	3,512.0	19.3	6.1
15	14	Honeywell	3,169.0	-1.1	13.7	Morristown, N.J.	136.0	138.6	5.4	4.3	3,239.0	11.0	4.2
16	17	Dow Corning	2,872.5	10.1	100.0	Midland, Mich.	340.8	24.3	100.0	11.9	6,008.2	100.0	5.7
17	15	Monsanto <sup>g</sup>	2,851.0	-7.7	64.8	St. Louis	20.0	-94.5	def	0.7	4,826.0	51.0	0.4
18	—	Nalco	2,766.6	4.6	100.0	Naperville, Ill.	329.4	-15.3	100.0	11.9	6,163.8	100.0	5.3
19	20	Solutia	2,430.0	8.4	100.0	St. Louis	-291.0	nm	100.0	def	2,446.0	100.0	def
20	21	IMC Global	2,190.6	6.5	100.0	Lake Forest, Ill.	101.6	-44.3	100.0	4.6	3,670.7	100.0	2.8
21	23	Engelhard	2,054.4	9.9	55.3	Iselin, N.J.	284.7	-1.6	101.1	13.9	1,665.4	56.8	17.1
22	22	Lubrizol	2,049.1	3.5	100.0	Wickliffe, Ohio	171.5	-13.7	100.0	8.4	1,942.3	100.0	8.8
23	18	Crompton Corp.	2,031.8	-14.4	93.0	Middlebury, Conn.	114.1	-53.4	def	5.6	2,444.9	96.7	4.7
24	25	W.R. Grace	1,980.5	9.0	100.0	Columbia, Md.	273.1	7.5	100.0	13.8	2,874.2	100.0	9.5
25	24	FMC Corp.	1,921.4	3.7	100.0	Philadelphia	196.6	5.2	100.0	10.2	2,828.8	100.0	6.9
26	26	Hercules	1,846.0	8.3	100.0	Wilmington, Del.	280.0	4.1	100.0	15.2	2,766.0	100.0	10.1
27	27	Cabot Corp. <sup>f</sup>	1,795.0	15.3	100.0	Boston	107.0	-34.0	100.0	6.0	2,308.0	100.0	4.6
28	28	Millennium Chemicals	1,687.0	8.6	100.0	Red Bank, N.J.	183.0	-6.2	100.0	10.8	1,929.0	100.0	9.5
29	31	Sunoco	1,627.0	19.5	9.1	Philadelphia	84.0	95.3	17.0	5.2	1,455.0	21.0	5.8
30	29	Ferro Corp. <sup>d</sup>	1,622.4	6.1	100.0	Cleveland	72.0	-29.9	100.0	4.4	1,751.2	100.0	4.1
31	32	Cytec Industries	1,471.8	9.3	100.0	West Paterson, N.J.	145.1	20.4	100.0	9.9	2,025.9	100.0	7.2
32	30	Great Lakes Chemical	1,464.6	4.5	100.0	Indianapolis	16.8	-85.6	100.0	1.1	1,693.2	100.0	1.0
33	36	Georgia Gulf	1,444.5	17.4	100.0	Atlanta	69.7	-29.1	100.0	4.8	856.8	100.0	8.1
34	35	Borden Chemical	1,434.8	15.0	100.0	Columbus, Ohio	70.5	31.3	100.0	4.9	993.9	100.0	7.1
35	—	Westlake Chemical	1,423.0	32.7	100.0	Houston	64.1	443.2	100.0	4.5	1,385.9	100.0	4.6
36	39	Terra Industries	1,349.2	29.4	100.0	Sioux City, Iowa	27.7	nm	100.0	2.1	1,125.1	100.0	2.5
37	34	H.B. Fuller <sup>h</sup>	1,287.3	2.5	100.0	St. Paul, Minn.	68.0	20.6	100.0	5.3	1,007.6	100.0	6.7
38	42	CF Industries	1,287.3	34.6	100.0	Long Grove, Ill.	-7.6	nm	100.0	def	1,323.0	100.0	def
39	37	Kerr-McGee	1,262.0	5.5	30.2	Oklahoma City	-48.0	nm	def	def	1,733.0	17.0	def
40	33	Ashland <sup>f</sup>	1,170.0	-9.3	15.6	Covington, Ky.	31.0	-64.4	11.7	2.6	749.0	10.7	4.1
41	38	Noveon	1,135.9	6.2	100.0	Cleveland	121.7	-13.6	100.0	10.7	1,759.2	100.0	6.9
42	41	Albemarle	1,110.2	13.3	100.0	Baton Rouge, La.	102.9	-3.9	100.0	9.3	1,387.3	100.0	7.4
43	40	Wellman	1,109.3	9.4	100.0	Shrewsbury, N.J.	14.0	-66.1	100.0	1.3	1,117.1	100.0	1.3
44	44	Arch Chemicals	1,009.1	7.4	100.0	Norwalk, Conn.	23.8	-27.7	100.0	2.4	976.4	100.0	2.4
45	46	NL Industries	1,008.2	15.2	100.0	Houston	144.5	150.0	100.0	14.3	1,264.1	100.0	11.4
46	47	ISP	892.9	5.6	100.0	Wayne, N.J.	132.5	7.7	100.0	14.8	1,436.2	100.0	9.2
47	48	Stepan	784.9	4.9	100.0	Northfield, Ill.	9.8	-71.1	100.0	1.2	464.2	100.0	2.1
48	49	Resolution Performance Products	781.0	5.8	100.0	Houston	41.0	-59.8	100.0	5.2	856.0	100.0	4.8
49	—	Ethyl Corp.	756.3	15.2	100.0	Richmond, Va.	20.0	47.1	100.0	2.6	645.4	100.0	3.1
50	50	Sigma-Aldrich	714.0	7.5	55.0	St. Louis, Mo.	na	na	na	na	na	na	na

**a** Operating profit is sales less administrative expenses and cost of sales. **b** Chemical operating profit as a percentage of sales. **c** Chemical operating profit as a percentage of identifiable assets. **d** Sales include a significant amount of nonchemical products. **e** Profits and profitability ratios are after tax. **f** Fiscal year ended Sept. 30. **g** End of fiscal year changed to Aug. 31 in 2003. Sales and profit figures for 2003 are for 11 months. **h** Fiscal year ended Nov. 29. **def** = deficit. **na** = not available. **nm** = not meaningful.

## ALL THE RANKINGS

Top 50 U.S. producers in terms of chemical sales, operating profits, assets, and profitability

\$ MILLIONS	CHEMICAL SALES			CHEMICAL OPERATING PROFITS			CHEMICAL OPERATING PROFIT MARGIN			IDENTIFIABLE CHEMICAL ASSETS			RETURN ON CHEMICAL ASSETS		
	2003	RANK		2003	RANK		2003	RANK		2003	RANK		2003	RANK	
		2003	2002		2003	2002		2003	2002		2003	2002		2003	2002
Air Products	\$6,029.5	9	11	\$651.9	6	5	10.8%	10	2	\$9,127.9	5	5	7.1%	14	12
Albemarle	1,110.2	42	41	102.9	24	25	9.3	16	14	1,387.3	36	37	7.4	11	15
Arch Chemicals	1,009.1	44	44	23.8	37	40	2.4	35	36	976.4	44	44	2.4	36	33
Ashland	1,170.0	40	33	31.0	35	29	2.6	33	25	749.0	47	43	4.1	30	14
Borden Chemical	1,434.8	34	35	70.5	29	34	4.9	26	32	993.9	43	40	7.1	14	27
Cabot Corp.	1,795.0	27	27	107.0	23	19	6.0	21	16	2,308.0	25	23	4.6	27	18
CF Industries	1,287.3	38	42	-7.6	44	43	def	—	—	1,323.0	38	35	def	—	—
Chevron Phillips	7,018.0	5	8	76.0	27	37	1.1	39	40	6,242.0	10	10	1.2	39	40
Crompton Corp.	2,031.8	23	18	114.1	22	12	5.6	22	17	2,444.9	24	22	4.7	26	9
Cytec Industries	1,471.8	31	32	145.1	17	23	9.9	14	20	2,025.9	26	29	7.2	13	21
Dow Chemical	32,632.0	1	1	2,082.0	1	2	6.4	20	33	30,566.0	1	1	6.8	18	36
Dow Corning	2,872.5	16	17	340.8	7	9	11.9	8	15	6,008.2	13	11	5.7	22	30
DuPont	30,249.0	2	2	na	—	—	na	—	—	23,813.0	2	2	na	—	—
Eastman Chemical	5,800.0	10	9	223.0	12	13	3.8	32	35	6,230.0	11	8	3.6	32	34
Engelhard	2,054.4	21	23	284.7	9	8	13.9	6	4	1,665.4	33	25	17.1	3	2
Equistar Chemicals	6,545.0	8	7	-62.0	46	44	def	—	—	5,028.0	15	14	def	—	—
Ethyl Corp.	756.3	49	—	20.0	38	—	2.6	33	—	645.4	48	—	3.1	33	—
ExxonMobil <sup>a</sup>	20,190.0	3	3	1,432.0	3	4	7.1	18	29	19,508.0	3	3	7.3	12	31
Ferro Corp.	1,622.4	30	29	72.0	28	26	4.4	30	25	1,751.2	30	33	4.1	30	25
FMC Corp.	1,921.4	25	24	196.6	14	16	10.2	13	19	2,828.8	21	19	6.9	16	24
H.B. Fuller	1,287.3	37	34	68.0	32	33	5.3	23	30	1,007.6	42	42	6.7	19	26
General Electric	8,371.0	4	4	803.0	5	3	9.6	15	5	15,044.0	4	4	5.3	23	17
Georgia Gulf	1,444.5	33	36	69.7	30	28	4.8	27	23	856.8	45	45	8.1	10	5
W.R. Grace	1,980.5	24	25	273.1	11	36	13.8	7	8	2,874.2	20	21	9.5	6	13
Great Lakes Chemical	1,464.6	32	30	16.8	40	24	1.1	39	22	1,693.2	32	30	1.0	40	22
Hercules	1,846.0	26	26	280.0	10	10	15.2	2	3	2,766.0	22	20	10.1	5	11
Honeywell	3,169.0	15	14	136.0	19	32	4.3	31	39	3,239.0	19	16	4.2	29	38
Huntsman Corp.	6,990.2	6	5	68.7	31	—	1.0	41	—	8,737.4	6	—	0.8	41	—
IMC Global	2,190.6	20	21	101.6	25	17	4.6	28	21	3,670.7	17	15	2.8	34	29
ISP	892.9	46	47	132.5	20	22	14.8	3	6	1,436.2	35	28	9.2	8	23
Kerr-McGee	1,262.0	39	37	-48.0	45	41	def	—	41	1,733.0	31	31	def	—	41
Lubrizol	2,049.1	22	22	171.5	16	14	8.4	17	18	1,942.3	27	27	8.8	9	7
Lyondell Chemical	3,801.0	13	13	-1.0	43	18	def	—	28	6,436.0	9	9	def	—	37
Millennium Chemicals	1,687.0	28	28	183.0	15	15	10.8	10	11	1,929.0	28	26	9.5	6	10
Monsanto	2,851.0	17	15	20.0	38	7	0.7	42	13	4,826.0	16	13	0.4	42	20
Nalco	2,766.6	18	—	329.4	8	—	11.9	8	—	6,163.8	12	—	5.3	23	—
NL Industries	1,008.2	45	46	144.5	18	31	14.3	4	27	1,264.1	39	39	11.4	4	28
Noveon	1,135.9	41	38	121.7	21	20	10.7	12	10	1,759.2	29	32	6.9	16	16
Occidental Petroleum	3,178.0	14	16	213.0	13	46	6.7	19	—	3,512.0	18	18	6.1	20	—
PPG Industries	6,606.0	7	6	939.0	4	6	14.2	5	12	5,450.0	14	12	17.2	2	3
Praxair	5,613.0	12	10	1,444.0	2	1	25.7	1	1	8,305.0	7	7	17.4	1	1
Resolution Performance Products	781.0	48	49	41.0	34	27	5.2	24	9	856.0	46	46	4.8	25	4
Rohm and Haas	5,620.0	11	12	na	—	—	na	—	—	7,792.0	8	6	na	—	—
Sigma-Aldrich	714.0	50	50	na	—	—	na	—	—	na	—	—	na	—	—
Solutia	2,430.0	19	20	-291.0	47	37	def	—	38	2,446.0	23	17	def	—	39
Stepan	784.9	47	48	9.8	42	39	1.2	38	30	464.2	49	48	2.1	37	19
Sunoco	1,627.0	29	31	84.0	26	35	5.2	24	37	1,455.0	34	34	5.8	21	35
Terra Industries	1,349.2	36	39	27.7	36	42	2.1	36	—	1,125.1	40	38	2.5	35	—
Wellman	1,109.3	43	40	14.0	41	36	1.3	37	34	1,117.1	41	41	1.3	38	32
Westlake Chemical	1,423.0	35	—	64.1	33	—	4.5	29	—	1,385.9	37	—	4.6	27	—

**NOTE:** There are 47 companies ranked for operating profits, 42 ranked for chemical operating profit margins, 49 ranked for chemical assets, and 42 ranked for return on chemical assets. **a** Reported after-tax profits only. **def** = deficit. **na** = not available.

## GERMANS ON TOP

Major global chemical and integrated oil companies head this year's list of foreign-owned chemical companies

RANK		COMPANY	U.S. CHEMICAL SALES (\$ MILLIONS)	CHANGE FROM 2002	U.S. CHEMICAL SALES AS % OF TOTAL U.S. SALES	COUNTRY	CHEMICAL OPERATING PROFITS <sup>a</sup> (\$ MILLIONS)	CHANGE FROM 2002	OPERATING PROFIT MARGIN <sup>b</sup>	IDENTIFIABLE CHEMICAL ASSETS (\$ MILLIONS)	OPERATING RETURN ON CHEMICAL ASSETS <sup>c</sup>
2003	2002		2003								
1	1	Bayer <sup>d</sup>	\$9,915.3	-4.1%	100.0%	Germany	-\$537.5	nm	def	\$10,234.4	def
2	2	BASF	8,162.6	-9.1	100.0	Germany	11.3	-56.5%	0.1%	8,163.8	0.1%
3	4	Shell Oil <sup>e</sup>	6,542.0	28.2	16.0	U.K./Netherlands	na	na	na	na	na
4	3	Atofina	5,077.7	-17.0	32.1	France	na	na	na	na	na
5	5	ICI	3,276.4	-8.9	100.0	U.K.	124.2	-42.0	3.8	1,021.3	12.2
6	6	Degussa	2,936.2	-11.0	100.0	Germany	na	na	na	na	na
7	10	Air Liquide	2,411.7	-4.3	100.0	France	314.9	-9.9	13.1	na	na
8	8	Dainippon Ink & Chemicals <sup>f</sup>	2,163.3	-9.6	100.0	Japan	51.3	-1.7	2.4	2,441.9	2.1
9	12	BOC <sup>d,g</sup>	2,024.3	-4.1	100.0	U.K.	150.0	-24.3	7.4	na	na
10	9	Akzo Nobel	1,985.5	-25.6	59.6	Netherlands	na	na	na	na	na
11	13	Syngenta	1,853.0	-0.6	82.5	Switzerland	na	na	na	na	na
12	17	Nova Chemicals	1,789.0	26.9	100.0	Canada	-66.0	nm	def	1,113.0	def
13	15	Celanese	1,656.5	-8.0	100.0	Germany	74.7	nm	4.5	2,922.7	2.6
14	14	Rhodia	1,649.7	-19.1	100.0	France	na	na	na	1,098.7	na
15	18	Shin-Etsu <sup>f</sup>	1,585.5	12.8	100.0	Japan	194.7	25.5	12.3	2,663.1	7.3
16	16	Agrium	1,557.0	9.3	100.0	Canada	na	na	na	374.0	na
17	19	Potash Corp.	1,475.3	28.0	100.0	Canada	-82.7	nm	def	1,745.6	def
18	20	Solvay	1,353.5	1.1	63.8	Belgium	na	na	na	na	na
19	22	DSM	1,167.7	-6.9	100.0	Netherlands	na	na	na	na	na
20	21	Ciba Specialty Chemicals	1,051.7	-16.9	100.0	Switzerland	na	na	na	552.3	na
21	23	Sasol <sup>g</sup>	906.0	3.2	100.0	South Africa	-24.0	nm	def	942.0	def
22	—	Alfa Group	845.7	79.1	70.5	Mexico	na	na	na	na	na
23	24	Clariant	840.6	-14.8	100.0	Switzerland	-113.0	nm	def	na	na
24	25	Cognis	810.2	-14.2	100.0	Germany	na	na	na	na	na
25	—	UCB	398.3	24.5	37.4	Belgium	na	na	na	na	na

**a** Operating profit is sales less cost of sales and administrative expenses. **b** Chemical operating profit as a percentage of sales. **c** Chemical operating profit as a percentage of identifiable assets. **d** Sales include a significant amount of nonchemical products. **e** Fiscal year ended March 31, 2003. **f** Fiscal year ended Sept. 30. **g** Fiscal year ended June 30. **def** = deficit. **na** = not available. **nm** = not meaningful.

added to the survey. J.M. Huber is in the same category.

With \$9.9 billion in U.S. sales, Bayer tops the separate list of foreign-owned firms, ahead of BASF's \$8.2 billion. However, it must be noted that Bayer's figures include pharmaceutical, animal health, lawn care, and myriad other products that aren't really "chemical." Bayer does not separate these businesses into regional sales.

If it did, it would certainly drop below BASF. This slippage might happen anyway next year if Bayer spins off its chemical business under the name Lanxess as planned.

Shell edged out Atofina this year to capture the number three spot in C&EN's foreign ranking. Like Bayer, number four Atofina is planning a chem-

icals spin-off, and, also like Bayer, Atofina will likely fall considerably in the foreign ranking. ICI is holding steady at number five in the foreign group this year.

One noteworthy addition to C&EN's ranking of foreign-owned firms is the first Mexican company. Alfa Group, which owns petrochemical maker Alpek and has been gobbling up polyester-related assets from DuPont over the past few years, joins the foreign-owned list at number 22, with \$846 million in U.S. sales.

Overall, 2003, the year on which the survey is based, was a better year financially for the U.S. chemical industry than 2002. Combined sales for the 50 top U.S. chemical producers surged ahead 12.7% versus 2002, hitting \$206.4 bil-

lion. In fact, sales decreased for only five of the companies. In 2002, combined sales fell by almost 2% from the preceding year.

In contrast, profits for the 47 companies reporting profits rose only 5.8% in 2003, reaching \$11.3 billion. Only five companies posted losses, but earnings declined for 19 companies.

There will be many major changes in the C&EN ranking next year, and some companies—such as Lyondell—will jump or sink dramatically. Already in 2004, number 42 Albemarle agreed to purchase Akzo Nobel's refining catalyst business. Lubrizol has announced its acquisition of Noveon, a move that will combine number 22 and 41.

And it's only May. With a continuing economic recovery and an apparent industry taste at the moment for acquisitions, the survey C&EN publishes next year could be much different from this one. ■